Early Assessment Report for the Retaining Employment and Talent After Injury/Illness Network (RETAIN) Demonstration

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A. Introduction

1. Overview of RETAIN

The Retaining Employment and Talent After Injury/Illness Network (RETAIN) demonstration is a collaborative effort between the U.S. Department of Labor (DOL) and the Social Security Administration (SSA) to help workers with recently acquired injuries or illnesses remain in the labor force. The goal of RETAIN is to implement and build evidence on the effectiveness of early stay at work and return to work (SAW/RTW) interventions to help those who develop a potentially disabling condition.

DOL and SSA awarded cooperative agreements to five state agencies to expand programs they began in Phase 1 of RETAIN. Each state's RETAIN program model centered on early coordination of health care and employment-related services and supports to help injured or ill workers remain in the workforce. The RETAIN states differed in how they implemented these services and supports to account for differences in their intended populations and the services available to support program outcomes.

2. Purpose of this report

This report assesses the initial implementation of the RETAIN programs in five state-specific chapters. Each state began enrollment at a different time between November 2021 and March 2022. Our assessment of initial implementation covers the period through June 2022. The findings focus on (1) program partnerships and the environment surrounding RETAIN implementation and service delivery, (2) recruitment and enrollment of eligible workers, and (3) RETAIN implementation and service delivery during the initial months of enrollment and service delivery. It also identifies areas for continued monitoring and evaluation technical assistance.

B. Data sources and analysis methods

Data sources. We combined qualitative and quantitative data sources and methods to conduct the early assessments and generate the findings presented in this report. The qualitative data sources included program documents (states' Phase 2 applications and quarterly progress reports); published indicators; and semistructured interviews with RETAIN program administrators, staff, and partners conducted during virtual site visits. The quantitative data sources included state-submitted enrollment and program service use data.

Analysis methods. We developed a data abstraction template to guide the systematic review of each state's Phase 2 grant application and quarterly progress reports. We developed a structured template that aligned with our research questions to guide the analysis of the site visit data. For each state, we used the structured template to synthesize notes on specific topics from our interviews.

To analyze the enrollment data, we generated descriptive statistics on enrollees' characteristics. To analyze the service use data, we produced descriptive statistics on variables reflecting treatment enrollees' receipt of RTW coordination services and other RTW services.

C. Findings

1. RETAINWOR*KS*

Program partnerships. The Kansas Department of Commerce was the lead agency for the state's RETAIN program (RETAINWOR*KS*). The program catchment area is the entire state of Kansas, including 105 counties, organized into five workforce development areas. The lead health care partner, Ascension Via Christi, led enrollment and provided RTW coordination services to all treatment enrollees who lived in the pilot workforce development area. The lead workforce partner, Workforce Alliance of South-Central Kansas, supported enrollment and provided workforce and social services to treatment enrollees who lived in the pilot workforce development area. At the time of the site visit, enrollment and service delivery took place only in the pilot workforce development area. The lead partners helped health care and workforce partners launch RETAIN services in the other workforce development areas across the state. Three employer partners helped develop outreach messaging and employer education.

The lead partners faced challenges developing partnerships across the multiple workforce development areas, which slowed the statewide implementation of RETAINWOR*KS*. These challenges included building relationships with additional partners and completing paperwork to formalize partners' roles in RETAINWOR*KS*. Program leaders and staff expressed a strong commitment to mentoring new partners and holding frequent meetings to support communication across the partners.

Early enrollment. The intended population comprised adults ages 18 to 65 who were employed or currently in the labor force and had experienced the onset or worsening of one of the following (work- or non-work-related) conditions: a musculoskeletal injury, a mental health disorder, a chronic disease, or another newly diagnosed illness or injury that affected their employment.

During the first nine months of enrollment, RETAINWOR*KS* enrolled 39 workers, which is 1 percent of the program's goal of enrolling 4,000 workers. In addition to the slow statewide implementation of the program, a key enrollment challenge was the lengthy informed consent process, which might discourage workers from enrolling.

The primary sources of referrals were Ascension Via Christi medical providers and other occupational health providers. Program leaders expected enrollment to increase as RETAINWOR*KS* launched in additional workforce development areas across the state. If the program's enrollment continues at the current level, however, there is a high chance the evaluation will fail to detect a true effect that is large enough to be important to policymakers.

As expected, treatment and control enrollees have similar baseline characteristics. The average age of the treatment enrollees was 41. Most treatment enrollees reported a primary diagnosis of a musculoskeletal condition (about 72 percent). Treatment enrollees had an average of 39 days between the onset of their primary diagnosis and enrollment. Most treatment enrollees were employed at the time of enrollment (89 percent), with the highest proportion of treatment enrollees holding a production, transportation, or material moving occupation (39 percent). Many last worked within one month of enrollment (78 percent), and most last worked within three months of enrollment (95 percent).

RETAINWORKS implementation and service delivery. Many treatment enrollees received RETAINWOR*KS* services beyond enrollment. RETAINWOR*KS* reported treatment enrollees received employment services and did not report any workplace accommodations. Program staff reported most

treatment enrollees requested financial support to augment lost income while taking time off from work rather than employment services.

RTW coordinators and employment counselors worked as a team to provide medical, social, and employment-related support to treatment enrollees. They faced initial challenges understanding their roles in the processes involved in delivering RTW coordination services. An in-person meeting held in April 2022 helped RTW coordinators and employment counselors better understand their roles and the processes for enrolling and delivering RETAINWOR*KS* services.

Enrollees' reluctance to permit RTW coordinators to communicate with their employers might limit the contrast between services to the treatment and control groups. Treatment enrollees expressed concerns about being fired if the employment counselor reached out to their employer to discuss their need for a workplace accommodation or alternate work assignment. Lack of coordination with enrollees' employers could have limited the implementation of workplace accommodations that support their staying at or returning to work.

Program staff described challenges engaging providers in completing the required medical provider training. They also noted RTW coordinators received delayed communication from providers. Despite these challenges, program data from RETAINWOR*KS* indicated all treatment enrollees' RTW coordinators communicated with their medical providers at least once. The rate of completion of medical provider training was not clear. A delay in medical provider training could have resulted in low use of best practices in occupational medicine early in their treatment of a patient who had an injury or illness, which could prove to be a barrier to their staying at or returning to work. This could, in turn, reduce the impact of RETAINWOR*KS*.

2. RETAIN Kentucky

Program partnerships. The Kentucky Office of Vocational Rehabilitation was the lead agency for RETAIN Kentucky (RETAIN KY). Two lead health care partners, UK Healthcare and the University of Louisville, supported enrollment. The lead workforce partner, the University of Kentucky Human Development Institute, led enrollment and provided RTW coordination services to all treatment enrollees and employment services to those who were unemployed or seeking a job transition. RETAIN KY partnered with four organizations to encourage referrals. The program catchment area was the entire state of Kentucky, including 120 counties.

The lead agency and lead workforce partner had a long-standing relationship and met regularly to coordinate.

Early enrollment. The intended population comprised workers who had an injury or illness that was not work-related, who were employed or who had been employed within the past 12 months, and who made at least $1,000 in one of those months. This focus complemented Kentucky's workers' compensation system, which supported SAW/RTW for workers with work-related injuries or illnesses.

During the first nine months of enrollment, RETAIN KY enrolled 200 workers, which was 6 percent of its goal of enrolling 3,200 workers. Enrollment challenges included reaching potential enrollees to confirm their eligibility, determining whether it was too early in a potential enrollee's recovery to benefit from RETAIN KY, and convincing potential enrollees of the benefits of RETAIN KY.

Clinical support staff (such as nurses and social workers) at the two lead health care partners were the primary sources of referrals. Program staff and partners expected referrals and enrollment to increase after

the health care partners embedded a referral to RETAIN KY into the electronic medical record, which would enable clinical support staff and medical providers to refer patients during appointments. If the program's enrollment continues at the current level, however, there is a high chance the evaluation will fail to detect a true effect large enough to be important to policymakers.

As expected, treatment and control enrollees had similar baseline characteristics. The average age of the treatment enrollees was 45. Nearly half of treatment enrollees reported a primary diagnosis of a condition that did not fall under RETAIN's four identified primary diagnosis categories.

RETAIN KY implementation and service delivery. Most treatment enrollees established an RTW plan. Fewer, about one-third, received employment services, and 20 percent received a workplace accommodation. Program staff reported RTW coordinators referred many treatment enrollees for unmet social needs that prevented them from staying at or returning to work, such as mental health conditions, substance use, food insecurity, and homelessness.

RTW coordinators received intensive ongoing training on an evidence-based vocational case management approach and brought a diverse set of personal and professional backgrounds to their roles. They regularly consulted one another and other experts, such as an assistive technology specialist, a peer mentor, and a mental health consultant who was an expert on mental health and substance use disorders. RTW coordinators held weekly case reviews with provider champions.

Treatment enrollees' reluctance to sign release-of-information forms permitting their RTW coordinator to access their medical records and communicate with their employers and medical providers might limit the contrast between services to the treatment and control groups. Program staff reported treatment enrollees were hesitant to sign the releases because of concerns about providing the RTW coordinators with access to their medical records and identity theft. In some cases, RTW coordinators established trust with the enrollee over the first few meetings, so the enrollee agreed to sign the release. If enrollees did not agree to sign the form, the RTW coordinators coached them to advocate for themselves.

The approval process required for offering continuing medical education credits for completing the training delayed the medical providers' training. Despite this delay, RTW coordinators communicated with a medical provider at least once for many treatment enrollees. The delay in medical provider training might have resulted in low use of best practices in occupational medicine early in their treatment of a patient who had an injury or illness, which could prove to be a barrier to their staying at or returning to work. This could, in turn, reduce the impact of RETAIN KY.

3. Minnesota RETAIN

Program partnerships. The Minnesota Department of Employment and Economic Development was the lead agency for Minnesota RETAIN (MN RETAIN). The lead health care partner, the Mayo Clinic, led enrollment and provided RTW coordination services to all treatment enrollees. The lead workforce partner, Workforce Development Inc., provided job transition services and financial support to treatment enrollees as needed. MN RETAIN had one employer champion who provided transitional work opportunities to treatment enrollees and promoted MN RETAIN among employees and other employers. The program catchment area was the entire state of Minnesota, including 87 counties. At the time of the virtual site visit, MN RETAIN was establishing contracts with three medical provider organizations and one workforce development service provider to expand services across the state.

Program partners faced initial coordination challenges resulting from different organizational missions and cultures and not having established relationships before working together to implement MN RETAIN. Program leaders, staff, and partners described a shared commitment to MN RETAIN and a meeting structure that supported program-wide communication as helping to overcome coordination challenges.

Early enrollment. The intended population comprised adults ages 18 and older who were employed or currently in the labor force and had experienced the onset or worsening of an injury or illness (work- or non-work-related) that affected their employment. This included workers who had an invasive procedure (including surgery) within the past 12 weeks or who anticipated one within 8 weeks.

During the first seven months of enrollment, MN RETAIN enrolled 283 workers, which was 9 percent of its goal of enrolling 3,200 workers. A key enrollment challenge was that eligible workers frequently did not attend their first scheduled appointment to complete enrollment. MN RETAIN's continuous quality improvement committee focused on overcoming this challenge.

The Mayo Clinic had a patient registry used by designated recruitment staff to identify potentially eligible patients; this was the primary source of referrals. Program leaders and staff expected referrals and enrollment to increase as a result of the time and resources they invested in engaging medical providers, employers, and diverse communities throughout the state. If enrollment continues at the current pace, however, it is likely the evaluation will fail to detect a true effect large enough to be important to policymakers.

As expected, treatment and control enrollees had similar baseline characteristics. The average age of the treatment enrollees was 44. Most treatment enrollees reported a primary diagnosis of a musculoskeletal condition (67 percent). Treatment enrollees had an average of 32 days between the onset of their primary diagnosis and enrollment. Most treatment enrollees were employed at the time of enrollment (92 percent), with the highest proportion of treatment enrollees holding a management, professional, or related occupation (42 percent). Many treatment enrollees last worked within one month of enrollment (69 percent), and almost all last worked within three months of enrollment (97 percent).

MN RETAIN implementation and service delivery. All treatment enrollees received MN RETAIN services beyond enrollment, and almost all received employment services. MN RETAIN did not report any workplace accommodations.

Program leaders and staff described the RTW coordinators as having diverse backgrounds and working closely with one another to deliver services. The RTW coordinators met daily to discuss cases and brainstorm solutions to challenges, and they communicated throughout the day to provide one another with support as needed. RTW coordinators referred enrollees to an employment counselor at the lead workforce development partner if they identified that the enrollee had a need for workforce development services or financial support. Program staff reported RTW coordinators and the employment counselor received positive feedback from treatment enrollees about their experiences in MN RETAIN.

Program staff noted RTW coordinators faced challenges engaging treatment enrollees' employers. Most enrollees gave RTW coordinators permission to communicate with their employers, but when an RTW coordinator called an employer to tell them their employee had enrolled in MN RETAIN, most employers expressed a preference for communicating directly with their employee rather than through the RTW coordinator. Program leaders and staff described a comprehensive strategy for engaging employers, which might improve their willingness to communicate with the RTW coordinator.

Program leaders reported engaging providers in the medical provider training went slower than planned. At the time of the site visit, no medical providers had completed the training. In addition, only 10 percent of treatment enrollees' RTW coordinators communicated with their medical providers at least once. Lack of provider participation in MN RETAIN training and communication with treatment enrollees' RTW coordinators might have resulted in low use of best practices in occupational medicine early in a medical provider's treatment of enrollees who had an injury or illness, which could have been a barrier to their staying at or returning to work. This could, in turn, reduce the impact of MN RETAIN.

4. Ohio RETAIN

Program partnerships. The Ohio Department of Job and Family Services was the lead agency for Ohio RETAIN (OH RETAIN). The lead health care partner, Mercy Health, led enrollment and provided RTW coordination services to all treatment enrollees. The lead workforce partners, the Local Workforce Development Boards, provided career and retraining services to treatment enrollees as needed. Another workforce partner, Opportunities for Ohioans with Disabilities, provided vocational rehabilitation services to referred treatment enrollees and consulted with employers on work accommodations for treatment enrollees as needed. The program catchment area was three regions in Ohio: Youngstown, Toledo, and Cincinnati.

Program leaders and staff were overwhelmingly positive about partner coordination. OH RETAIN benefitted from the lead agency and workforce partners having long-standing relationships. Program partners said establishing a memorandum of understanding between partners, having open lines of communication, establishing clear workflows (such as intra-agency referral processes), and drawing on partners' areas of expertise helped coordination efforts.

Early enrollment. The intended population comprised adults ages 18 to 65 who were employed or in the labor force and had experienced the onset or worsening of a non-work-related musculoskeletal or cardiovascular injury or illness in the past three months. In addition, they must have had a medical provider employed by the lead health care partner who had completed OH RETAIN training.

During the first six months of enrollment, OH RETAIN enrolled 612 workers, which was 18 percent of its goal of enrolling 3,500 workers. Program leaders and staff cited a clear division of responsibilities among staff involved in the screening and recruitment process that worked well in contributing to increasing the enrollment rate. This process included a dedicated severity review during which nurses who had clinical expertise identified patients who were most likely to be good candidates for the program, thereby increasing the enrollment rate.

The primary source of referrals was a set of reports program staff generated from the electronic medical record listing patients with specified musculoskeletal or cardiovascular conditions who had an office visit the previous day. The nurses who conducted the severity review generated these reports daily and reviewed listed patients' medical records to assess eligibility.

As expected, treatment and control enrollees had similar baseline characteristics. The average age of the treatment enrollees was 45. Most treatment enrollees reported a primary diagnosis of a musculoskeletal condition (93 percent). Treatment enrollees had an average of 30 days between the onset of their primary diagnosis and enrollment. Many treatment enrollees were employed at the time of enrollment (81 percent), with the highest proportion of treatment enrollees holding a service occupation (43 percent). Many treatment enrollees last worked within one month of enrollment (71 percent), and most last worked within three months of enrollment (86 percent).

OH RETAIN implementation and service delivery. Many treatment enrollees received OH RETAIN services beyond enrollment, but OH RETAIN did not report employment services for any treatment enrollees. About 15 percent of treatment enrollees received a workplace accommodation.

Program leaders and staff noted RTW coordinators' experience, training, and communication facilitated delivery of RTW coordination services. All RTW coordinators were experienced case managers who previously worked in fields ranging from behavioral health to hospice to extended care. The RTW coordinator team drew on this diversity of case management experience and the different areas of coordinators' expertise. In addition, OH RETAIN had a dedicated social work team for addressing treatment enrollees' social needs.

According to program leaders and staff, medical provider training went as planned. For workers to be eligible for OH RETAIN enrollment, their medical provider must have been enrolled in OH RETAIN, meaning their provider agreed to participate in the program and received OH RETAIN training. All treatment enrollees' RTW coordinators communicated with their medical providers at least once.

Workers must have given permission to RTW coordinators to communicate with their medical providers and employers to enroll in OH RETAIN. Many treatment enrollees' RTW coordinators communicated with their employers at least once, and program staff reported employers were receptive to discussing SAW/RTW plan options with RTW coordinators.

OH RETAIN experienced low treatment enrollee engagement with workforce services. Although treatment enrollees were willing to receive referrals to these services, after workforce partners contacted them, they often indicated they were not ready to participate in these services while they focused on adjusting to the impact of their injury or illness on their life. Program partners suggested enrollees' readiness for workforce services might take more time than the OH RETAIN service delivery period allowed.

5. Vermont RETAIN

Program partnerships. The Vermont Department of Labor was the lead agency for Vermont RETAIN (VT RETAIN). OneCare Vermont, the lead health care partner, recruited primary care practices to participate in the clustered random assignment evaluation. Dartmouth Health supported enrollment and provided RTW coordination services to all treatment enrollees. VT RETAIN did not have a separate lead workforce partner. The Vermont Department of Labor planned to hire staff to provide VT RETAIN employment services. The program catchment area was the entire state of Vermont, including 14 counties.

Program staff described initial coordination challenges, including clarifying roles and reporting structures, communicating across different professional backgrounds, and making decisions across partners. They noted the benefit of having program staff dedicated to supporting coordination across partners and organizing program staff into focused work groups that tracked progress on implementation milestones and reported monthly to a leadership committee. Both strategies helped overcome the initial coordination challenges.

Early enrollment. The intended population comprised adults ages 18 and older who were employed or currently in the labor force and had experienced the onset or worsening of an injury or illness (work- or non-work-related) that affected their employment.

During the first four months of enrollment, VT RETAIN enrolled 38 workers, which was 2 percent of its goal of enrolling 2,040 workers. Distinct from other RETAIN programs, VT RETAIN used a cluster random assignment model. In this model, Mathematica assigned participating primary care practices to the treatment or control group. The burden of the COVID-19 pandemic on participating practices led them to delay implementing recruitment and screening of potential enrollees. Enrollment will have to increase significantly to have enough enrollees to draw conclusions about the impact of the program on the treatment enrollees.

The primary source of referrals was patient self-screening at participating primary care practices. Practices alerted patients to the screening by placing VT RETAIN promotional materials (such as posters, postcards, and fact sheets) in waiting and exam rooms. VT RETAIN provided materials for practices to implement the pre-screening method of their choosing, including collecting paper self-screeners, prompting patients to pre-screen on tablets, or including QR codes on promotional materials to enable patients to access the pre-screener on their phones. VT RETAIN did not have electronic medical record agreements with practices that would allow recruitment staff to use the record to review patients' medical records for a more active screening approach.

As expected, treatment and control enrollees had similar baseline characteristics. Just under half of treatment enrollees reported a primary diagnosis of a musculoskeletal condition (44 percent). The average age of the treatment enrollees was 48. Treatment enrollees had an average of 80 days between the onset of their primary diagnosis and enrollment. Many treatment enrollees were employed at the time of enrollment (61 percent), with the highest proportion of treatment enrollees holding a service occupation (28 percent). Just under half of treatment enrollees were currently working or worked within one week of enrollment (45 percent).

VT RETAIN implementation and service delivery. VT RETAIN provided RTW coordination services to all treatment enrollees and referrals to employment and social services as needed. About 60 percent of treatment enrollees received VT RETAIN services beyond enrollment. VT RETAIN reported 50 percent of treatment enrollees received workplace accommodations and 17 percent received employment services.

RTW coordinators had access to recorded trainings on a range of topics, such as Vermont's economic conditions, the state's electronic data capture system, and the resources available to support treatment enrollees. Program leaders and staff described RTW coordinators' diverse professional backgrounds and interpersonal skills as facilitating RTW coordination service delivery. In addition to their caring dispositions, RTW coordinators benefited from a mix of expertise on the team, including backgrounds in nursing, employment services, and social work. RTW coordinators attended weekly case review meetings that provided an opportunity to consult a multidisciplinary RTW expert team that included a range of medical specialists and social service providers.

The contrast between workforce services that will be available to treatment and control enrollees is not yet clear. At the time of the site visit, VT RETAIN planned to hire workforce development staff to focus on engaging employers and integrating employment services into VT RETAIN. Though treatment and control enrollees have access to the same workforce development services, RTW coordinators can help ensure treatment enrollees connect to appropriate services.

The health care lead delivered in-person and live online trainings to participating primary care practices to increase awareness of VT RETAIN, the importance of work for health, and how to implement screening into practice workflows. Through conversations with participating practices, program staff learned

medical providers were eager for information about referrals, resources, and best practices to support patients, as well as opportunities to receive continuing medical education credits.

D. Conclusion

Our assessment of states' experiences with the initial implementation of the RETAIN programs shows the progress states made and the complexities of the demonstrations. Most notably, enrollment was low in four of the five states. In addition, three states were slow to engage medical providers in training. Three states revealed potential concerns with the service contrast and ensuring that treatment enrollees received intervention services that were distinct from the services received by control enrollees. Two states reported challenges applying eligibility criteria.

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I. Introduction

Each year, more than 2 million workers in the United States leave the labor force, at least temporarily, because of a medical condition or illness (Hollenbeck 2015). Many of these workers fall through the cracks in the current support system and exit the workforce permanently. Exits from the workforce can lead to subsequent adverse effects on standard of living (Ben-Shalom and Burak 2016; Schimmel and Stapleton 2012) and well-being (Ben-Shalom et al. 2018; Michaud et al. 2016). Without steady income from employment, these workers and their families might turn to public supports such as Social Security Disability Insurance (SSDI), Supplemental Security Income (SSI), Medicare, and Medicaid.

The Retaining Employment and Talent After Injury/Illness Network (RETAIN) demonstration is a collaborative effort between the U.S. Department of Labor (DOL) and the Social Security Administration (SSA) to help workers with recently acquired injuries and illnesses remain in the labor force. The goal of RETAIN is to implement and build evidence on the effectiveness of early stay at work and return to work (SAW/RTW) interventions to help those who develop a potentially disabling condition.

The interventions in the RETAIN demonstration sought to influence the following outcomes of workers:

- **Employment:** to increase employment retention and labor force participation of individuals who acquired or were at risk of developing disabilities that inhibited their ability to work
- **Reliance on disability programs:** to reduce long-term work disability among program participants, including the need for SSDI and SSI

To influence these outcomes, DOL and SSA awarded cooperative agreements to five state agencies to continue and expand programs they began in Phase 1 of RETAIN. The ultimate purpose of the demonstration is to validate and bring to scale evidence-based interventions that supported injured or ill workers in remaining at or returning to work.

A. Purpose of the early assessment report

This report presents findings that address research questions related to the initial implementation of the RETAIN programs, included in five state-specific chapters. These findings assess early implementation focused on (1) program partnerships and the environment surrounding RETAIN implementation and service delivery, (2) recruitment and enrollment of eligible workers, and (3) RETAIN implementation and service delivery during the initial months of enrollment and service delivery. The process analysis report, to be submitted in December 2023, will provide summative implementation findings after the states have had time to fully implement their RETAIN programs.

B. The RETAIN program

All RETAIN program models focused on early coordination of health care and employment-related supports and services to help injured or ill workers remain in the workforce. The RETAIN states differed in how they were implementing these supports and services to account for differences in their intended populations and services available to support program outcomes. Nonetheless, certain services and supports were central to all state RETAIN programs.

1. Program model

The RETAIN program model builds on key features of the Washington State Center for Occupational Health and Education (COHE) model, for which prior evaluations demonstrated positive impacts (Wickizer et al. 2011, 2018; Franklin et al. 2015). The key components of the COHE model include care coordination, occupational health best practices, regular provider training and performance feedback, provider incentives, and community outreach (Wickizer et al. 2004). In addition to the care coordination and provider training components, RETAIN emphasized access to employment-related services and supports. This included providing support for workplace-based interventions and assistance with retraining and rehabilitation if a treatment enrollee could no longer perform their job.

The RETAIN programs followed a core program model (Exhibit I.1). Program components central to the model included medical provider services and RTW coordination services. Other components of the model could vary by program or treatment enrollee.

Exhibit I.1. RETAIN program components

Service category	Program component	Definition
Medical provider services		
	Training medical providers	Training delivered to medical providers covered occupational medicine best practices and alternatives to opioids for pain management.
	Incentivizing medical providers	The program provided incentives to medical providers for using occupational medicine best practices and alternatives to opioids for pain management.
RTW coordination services		
	Coordinating RTW services	The program coordinated the delivery of medical and employment services, including developing and implementing an RTW plan. An RTW coordinator usually led the coordination of RTW services.
	Communicating among parties involved in RTW plan	This component involved communicating among all RETAIN parties about the treatment enrollee returning to work. This communication should have occurred early in delivering RETAIN services to support the treatment enrollee in returning to work as soon as possible.
	Monitoring treatment enrollees' progress	This component involved tracking and monitoring the treatment enrollees' medical and employment progress.
Other RTW services		
	Supporting workplace-based interventions	These services accommodated the treatment enrollees' return to work. This might include modifying their duties and adjusting their schedules, tasks, and physical worksites.
	Retraining or rehabilitating enrollees	These services involved retraining or rehabilitating the treatment enrollees when they could no longer perform their primary jobs or suitable alternate work.

Source: The U.S. Department of Labor's RETAIN Funding Opportunity Announcement.

RETAIN = Retaining Employment and Talent After Injury/Illness Network; RTW= return to work.

2. Program partners

DOL and SSA expected successful RETAIN programs to provide services through coordinated partnerships between state and local workforce development entities, health care providers, and other partners. The RETAIN cooperative agreement required the three types of entities shown in the text box to coordinate efforts to support RETAIN implementation and service delivery. DOL and SSA gave the lead agency flexibility to choose other partners to provide expertise or services relevant to the state's intended population and specific program goals.

Entities required to form partnerships under the RETAIN cooperative agreement

1. State department of labor, state workforce development agency, or an equivalent entity responsible for labor employment and workforce development. DOL expected this entity to lead RETAIN implementation.
2. Workforce development boards. DOL expected workforce development boards to play a vital role in providing expertise on RTW and employment-related services, coordinating with health care providers to address treatment enrollees' health-related needs, and engaging employers in the RETAIN program.
3. Health systems practicing coordinated care and population health management. DOL expected health care systems to play a vital role in delivering services to improve SAW/RTW outcomes among the intended population.◢

3. Intended population

Although the COHE model focused the population of interest on people with work-related injuries or illnesses, RETAIN expanded the intended population to include those with non-work-related injuries, as long as they were employed or in the labor force when the injury or illness first occurred. The RETAIN cooperative agreement specified minimum eligibility criteria that the intended populations in each state must meet (additional details regarding the required minimum eligibility criteria are available in the following text box).

Minimum eligibility criteria under the RETAIN cooperative agreement

1. Individual had either (a) an existing disability or chronic condition; or (b) a new injury or illness or worsening of an existing condition, such as reduced functional capacity due to low-back pain.
2. Individual was employed, or at a minimum in the labor force, at the onset of the injury, illness, or condition (work-related or non-work-related) for which they enrolled in RETAIN.
3. Individual might not have an application for SSDI or SSI benefits pending or might not already receive such benefits at the onset of the injury or illness.◢

DOL and SSA expected treatment enrollees to receive RETAIN services for six months. States had to enroll 80 percent of enrollees within 12 weeks of their work disability onset and ideally began providing services to treatment enrollees immediately upon enrollment. If a treatment enrollee required medical care and employment services after enrolling in RETAIN for six months, or if the enrollee needed services beyond the scope of the RETAIN program, states should have referred the treatment enrollee to other available services, such as vocational rehabilitation (VR), and discharge them from RETAIN.

C. Research questions guiding this report

Each of the five state-specific chapters is organized around three research topics and related research questions guiding the early assessment, as well as the process and participation studies we will conduct in the future.

1. Program partnerships and the environment surrounding RETAIN implementation and service delivery

a. Program partnerships

The quality, coordination, and nature of the program partnerships established under RETAIN could affect the implementation and delivery of RETAIN services in ways that influenced program implementation and demonstration outcomes. To guide our understanding of the program partnerships established to support the RETAIN programs, this report addressed the following research questions:

- What entities did the agency leading implementation (lead agency) partner with to implement and deliver RETAIN services?
- What were the different partners' roles on RETAIN?
- How did program partners work together to achieve program goals?
- What were the facilitators of and challenges to involving partners in RETAIN?

b. Environment surrounding RETAIN implementation and service delivery

The employment and policy environments surrounding RETAIN implementation in each state could have affected the implementation of the RETAIN program components in ways that influenced the outcomes of the demonstration. In addition, the ongoing coronavirus (COVID-19) pandemic could have affected RETAIN implementation and outcomes. To guide our understanding of the environment surrounding RETAIN implementation and service delivery, we addressed the following research questions in this report:

- What were the characteristics of the employment and policy environments surrounding RETAIN implementation that could influence RETAIN's service delivery and impact outcomes?
- What was each state's experience with the COVID-19 pandemic?
- How did the COVID-19 pandemic influence RETAIN's service delivery, and what was the potential impact of the pandemic on outcomes?

2. Recruiting and enrolling eligible workers

Assessing how states defined, recruited, and enrolled eligible workers was critical to ensuring the RETAIN programs reached the intended populations and effectively enrolled eligible workers who would benefit from the intervention. To guide our understanding of recruiting and enrolling eligible workers in RETAIN programs, we addressed the following research questions in this report:

- How did each state screen, recruit, and enroll eligible workers into RETAIN?
- What challenges did states face collecting and reporting enrollment data?

- What were the characteristics of RETAIN enrollees? How did the characteristics of treatment enrollees compare to control enrollees?

3. RETAIN implementation and service delivery

Assessing how program partners implemented an intervention is critical to understanding where and why agencies and partners adapted the intervention during implementation. Understanding adaptations enabled us to accurately document how agencies and partners delivered intervention services in practice and how they compared to the intervention as planned. In addition, describing the implementation experiences of program partners was central to understanding the implementation process and lessons learned for future implementation efforts. Finally, the degree to which an intervention condition and a comparison condition differed lays a foundation for understanding intervention impacts. To guide our understanding of RETAIN implementation and service delivery, we addressed the following research questions in this report:

- How did the lead agency and its partners implement the RETAIN program components?
- To what extent did service providers adapt or deviate from implementing the RETAIN program components as planned at the start of Phase 2?
- To what extent did treatment enrollees receive RETAIN services?
- What factors (facilitators and barriers) enhanced or hindered RETAIN implementation?
- What was the contrast between the program's services and the counterfactual (that is, the services available to the control enrollees)?

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II. Data sources and methods

As described in the Evaluation Design Report (Berk et al. 2021), we used a combination of qualitative and quantitative data sources and methods to conduct the early assessments and generate the findings presented in this report. We describe these data sources and methods below.

A. Data sources

We mapped the data sources to the early assessment research questions in Exhibit II.1 and describe each source in the sections that follow. The qualitative data sources include program documents (states' Phase 2 applications and quarterly progress reports); published indicators; and semi-structured interviews with RETAIN program administrators, staff, and partners conducted during virtual site visits. All site visit data collected for this report is considered Round 1 data; a second round of site visits to be conducted in 2023 will inform later reports. The quantitative data sources include state-submitted enrollment and program service use data.

Exhibit II.1. Early assessment data sources

Research questions	Qualitative data			Quantitative data	
	Program document review	Published indicators	Virtual site visits	Enrollment data	Program service use data
Program partnerships					
What entities are the lead agency partnering with to implement and deliver RETAIN services?	X		X		
What are the different partners' roles on RETAIN?	X		X		
How do program partners collaborate to achieve program goals?	X		X		
What are the facilitators and challenges to partner involvement in RETAIN?	X		X		
Environment surrounding RETAIN implementation and service delivery					
What are the characteristics of the employment and policy environment surrounding RETAIN implementation that could influence RETAIN's service delivery and impact outcomes?		X	X		
What is the state's experience with the COVID-19 pandemic?		X	X		
How has the COVID-19 pandemic influenced RETAIN's service delivery and what is the potential impact of the pandemic on outcomes?	X	X	X		
Recruitment and enrollment of eligible workers					
How does the state screen, recruit, and enroll eligible workers into RETAIN?	X		X		
What are the facilitators and challenges affecting enrollment in RETAIN?			X		
What challenges did the state face collecting and reporting enrollment data?	X		X		

Research questions	Qualitative data			Quantitative data	
	Program document review	Published indicators	Virtual site visits	Enrollment data	Program service use data
What are the characteristics of RETAIN enrollees? How do the characteristics of treatment enrollees compare to control enrollees?				X	
RETAIN implementation and service delivery					
How are the lead agency and its partners implementing the RETAIN program components?	X		X		
To what extent are service providers adopting or deviating from implementing the RETAIN program components as planned at the start of Phase 2?	X		X		X
To what extent do treatment enrollees receive RETAIN services?					X
What factors (facilitators and barriers) enhanced or hindered RETAIN implementation?			X		
What was the contrast between the program's services and the counterfactual services (services available to the control enrollees)?	X		X		

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

1. Qualitative data sources

a. Program documents

We reviewed two types of program documents to solidify our understanding of states' plans for Phase 2 implementation of RETAIN and their implementation progress: (1) the Phase 2 state awardees' grant applications and (2) the states' quarterly progress reports submitted to DOL (Exhibit II.2).

Exhibit II.2. RETAIN program documents

Program documents	Description
States' RETAIN Phase 2 grant applications	These documents describe states' plans for implementing each RETAIN program component and their proposed strategies for enhancing implementation in Phase 2. They include information on program inputs such as the environment in which the program would be implemented, the program partners, key program staff, intended populations, and geographic area.
States' quarterly progress reports for DOL	These reports include documentation of states' major activities over the prior quarter, their program implementation progress, their challenges and accomplishments, deviations from their plans for implementation, and their planned activities for the following quarter.

DOL = U.S. Department of Labor; RETAIN = Retaining Employment and Talent After Injury/Illness Network.

b. Virtual site visits and interviews

To learn about states' implementation progress, barriers, and facilitators, we conducted semi-structured interviews with each state's RETAIN program administrators, staff, and partners four to six months after Phase 2 enrollment began (Exhibit II.3). We also interviewed American Institutes for Research (AIR) technical assistance providers. We transcribed all interviews.

Exhibit II.3. RETAIN virtual site visit activities

Site visit activity	Description
Interviews with program administrators, staff, and partners	Program administrators include program directors and managers and medical directors leading the implementation of RETAIN in their states. Program staff include grant coordination staff, recruitment and enrollment staff, and RETAIN coordination service delivery staff. Program partners include representatives from organizations on states' RETAIN leadership teams, such as workforce partners, government agency partners, or other partners who provide consultation. Interview topics included program partnerships, recruitment and enrollment activities, implementation of program components, technical assistance needs, and the counterfactual service environment.
Interviews with AIR technical assistance providers	AIR technical assistance providers work with states to identify and support strategies for improving the implementation of the RETAIN program. Interview topics included states' implementation-related technical assistance needs and states' strategies for improving program implementation.

AIR = American Institutes for Research; RETAIN = Retaining Employment and Talent After Injury/Illness Network.

2. Quantitative data sources

a. Published indicators

To contextualize the program environment in each state, we identified published data on states' unemployment rates and employment rates among working-age people with and without disabilities. We also identified published data on states' COVID-19 vaccination rates. The sources of this data include the U.S. Bureau of Labor Statistics, the University of New Hampshire Institute on Disability/ University Center for Excellence in Disability, and the Johns Hopkins University Coronavirus Resource Center.

b. Enrollment data

To document states' enrollment outcomes and the characteristics of RETAIN treatment and control enrollees, we drew from enrollment data from October 2021 through the end of June 2022 provided by each RETAIN state. These data include baseline information on enrollees' demographic and socioeconomic characteristics, the injury or illness that qualifies their eligibility for RETAIN, their employment status, and whether they have received SSDI benefits in the past. All states but Vermont submit enrollment data to Mathematica through the Confirmit system, while Vermont submits enrollment data on a monthly basis to SSA.

c. Service use data

We used service use data from October 2021 through the end of June 2022 to quantify treatment enrollees' receipt of RTW coordination services, communication among RETAIN parties involved in treatment enrollees' return to work, and treatment enrollees' receipt of other RTW services. States submit these data in quarterly evaluation reports to SSA.

B. Analysis methods

1. Qualitative data analysis

We developed a data abstraction template to guide the systematic review of each state's Phase 2 grant application and quarterly progress reports. This template enabled us to organize application information that described each state's program inputs and plans for implementing the RETAIN program components. We then used the template to guide our review of states' quarterly progress reports, focusing on identifying relevant information about how states were implementing program components and what facilitators and barriers to implementation they were experiencing.

We developed a structured template that aligned with our research questions to guide the analysis of the site visit data. For each state, we used the structured template to synthesize notes on specific topics from across respondent interviews. This enabled us to identify key facilitators and barriers to implementation of each RETAIN program component, which included program-level factors as well as the broader program environment surrounding the RETAIN program (including the state's employment environment and the COVID-19 pandemic). We referenced the interview transcripts as needed for additional detail and to clarify respondents' comments. We shared summaries of our site visit findings with SSA in state-specific site visit summaries. We elaborated on our findings and identified areas for continued monitoring and evaluation technical assistance for this report.

2. Quantitative data analysis

To help contextualize the employment environment in each state, we identified published data on states' unemployment rates, as well as their employment rates among working-age people with and without disabilities, and compared these state-level indicators with national indicators.

To analyze the enrollment data, we generated descriptive statistics on enrollee characteristics (Exhibit II.4). We conducted statistical tests of difference to compare treatment and control enrollee characteristics. We used chi-square tests for categorical variables and *t*-tests for binary and continuous variables.

To analyze the service use data, we produced descriptive statistics on variables reflecting treatment enrollees' receipt of RTW coordination services and other RTW services. We coded free text response variables as binary values to include in the quantitative analysis.

Exhibit II.4. RETAIN enrollment data variables

Enrollee characteristics	Description
Demographic characteristics	Sex, age, race/ethnicity, preferred language, education
Injury or illness characteristics	Type of illness
Employment and benefits characteristics	Health insurance, employment status, length of time since last worked, tenure at current job, occupational classification of pre-injury/illness job, earnings

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

C. Limitations

Our early assessment of RETAIN program implementation has several limitations, some of which relate to the virtual site visits. The site visits occurred four to six months after states began enrollment, and most states were still early in their implementation. Some states had low enrollment at the time of the site visits, and therefore in some cases, staff did not yet have much experience with some of the processes we were asking them about. For instance, some RTW coordinators we interviewed were not yet working with any treatment enrollees, so their perspectives around implementation barriers and facilitators were limited. In addition, because we were only able to interview a selection of RETAIN stakeholders in each state, the perspectives we heard may not fully represent the experiences of all stakeholders in those states.

The main limitation of the quantitative data analysis is related to some states having low enrollment in the early months of program implementation. Therefore, the analysis of treatment enrollees' use of services may be limited in some states.

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III. RETAINWOR*KS*

Key findings

- The need to develop multiple partnerships across multiple regions (workforce development areas) slowed RETAINWOR*KS*'s statewide expansion beyond one workforce development area (Area IV). Program leaders and staff mentored local teams in other workforce development areas to help them prepare for implementation.
- Most referrals were from the lead health care partner, Ascension Via Christi providers in workforce development area IV, and other occupational health providers in the area.
- During the first nine months of enrollment (October 2021 through June 2022), RETAINWOR*KS* enrolled 39 workers, 1.0 percent of its enrollment goal, which was lower than expected. A lengthy informed consent process might have discouraged potential enrollees from enrolling. Program leaders expected enrollment to increase as RETAINWOR*KS* launched implementation in additional workforce development areas.
- Most treatment enrollees reported a primary diagnosis of a musculoskeletal condition. Treatment enrollees had an average of 39 days between the onset of their primary diagnosis and enrollment. Most treatment enrollees were employed at the time of enrollment, with the highest proportion of treatment enrollees holding a production, transportation, or material moving occupation.
- Many treatment enrollees received RETAINWOR*KS* services beyond enrollment. RETAINWOR*KS* reported treatment enrollees received employment services and did not report any workplace accommodations.
- Many enrollees had not allowed employment counselors to contact their employers, and the extent of medical providers' participation in training was unclear. Services were delivered in only one workforce development area.
- RETAINWOR*KS* collected and reported data using multiple inputs, including a manual data collection tool and the state workforce system's management information system (KANSASWORKS). Program staff launched a secure web application (REDCap) to replace the manual tool and reduce missing and inconsistent information. However, employment counselors must still enter information about other RTW services from KANSASWORKS into REDCap.

A. Overview of RETAINWOR*KS*

The Kansas Department of Commerce (Commerce) is the lead agency for the state's RETAIN program (RETAINWOR*KS*). The intended population includes adults who are employed or seeking employment and have a work- or non-work-related injury or illness. The injury or illness must be one of the following: (a) a musculoskeletal injury, (b) a mental health disorder, (c) a chronic disease, or (d) another newly diagnosed illness or injury affecting the individual's employment. RETAINWOR*KS* provides RTW coordination services to all treatment enrollees. For treatment enrollees interested in workforce services or who are experiencing social needs, RTW coordinators refer them to RETAINWOR*KS* employment counselors. The program catchment area is the entire state of Kansas, including the five local workforce development areas that make up the state across 105 counties.

This chapter documents recruitment, enrollment, and program operations roughly eight months after enrollment began and presents findings about the initial implementation of RETAINWOR*KS*.[1]

B. RETAINWOR*KS* established partnerships to support enrollment and service delivery

As the lead agency for RETAINWOR*KS*, Commerce brings together a range of partners to support implementation (Exhibit III.1). The partners support implementation across five regions (local workforce development areas) that make up the state.[2] Commerce received signed letters of commitment to support RETAINWOR*KS* from the lead health system, all five local workforce development boards, and other organizations before submitting its Phase 2 application (Appendix A Exhibit A.1). In this section, we describe these partner organizations and their roles supporting RETAINWOR*KS*.

1. Lead health care partner

The lead health care partner, Ascension Via Christi (AVC), is located in the Wichita, Kansas, area in workforce development area IV.[3] In Area IV, it oversees (1) recruiting and engaging medical providers and connecting them with online training; (2) recruiting, training, and managing RTW coordinators; and (3) screening and recruiting referred workers. AVC staff in Area IV support the launch of implementation in other local workforce development areas. Program leaders and staff said it was helpful that the referral and enrollment lead and one RTW coordinator continued from Phase 1, bringing their knowledge of RETAINWORKS to implementation and service delivery and to mentorship of other local workforce development areas.

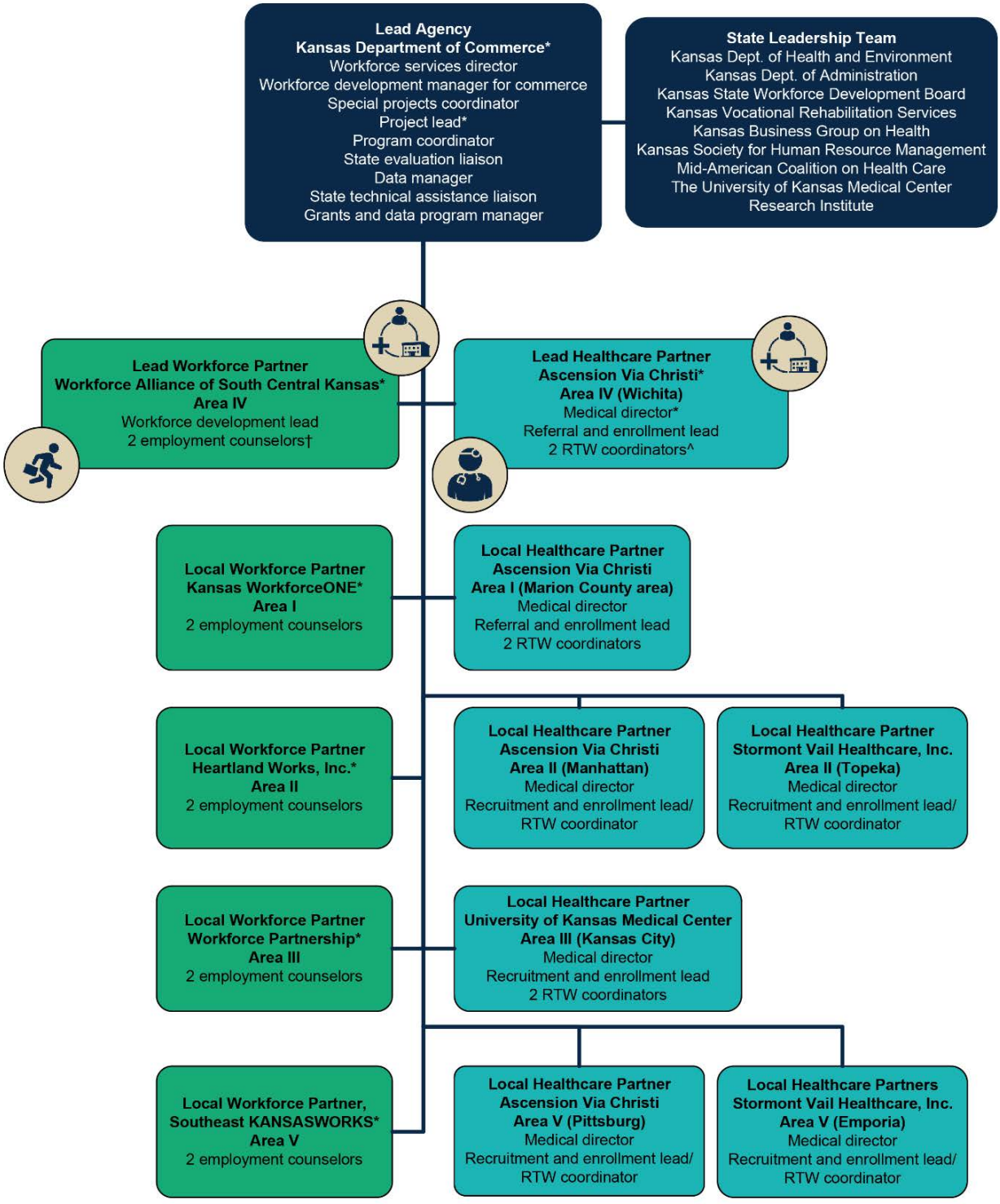
The medical director at the lead health care partner acts as a provider champion in Area IV and mentors local health care partners in the other local workforce development areas. The director is especially effective at connecting with providers in the lead health system due to his longstanding professional relationships with those providers. The RTW coordinators engage providers during in-person lunch-and-learn meetings with practice office managers and emphasize that RETAINWOR*KS* will help providers and not create more work. Providers are generally supportive of RETAINWOR*KS* goals of helping patients outside of what they can accomplish during patient visits.

Program staff reported that the biggest challenge to recruiting medical providers has been the letter of agreement, a contract AVC requires practices to sign to participate in RETAINWOR*KS*. The contract describes practices' role in RETAINWOR*KS* and allows practices to receive incentive payments.[4] Program staff said legal staff are often involved in executing the contract. The legal review has sometimes slowed medical provider participation in RETAINWOR*KS* by four to six weeks or prevented participation altogether.

Another challenge to provider participation is providers' limited time, energy, and staff due to burnout from the COVID-19 pandemic. Program staff reported that it was especially challenging to gain providers' attention remotely. These factors have contributed to a slow ramp-up of referrals.

[1] RETAINWOR*KS* enrolled the first worker on October 22, 2021. We collected qualitative data about implementation experiences during semi-structured site visit interviews six months after the start of enrollment. We collected program data through nine months after the start of enrollment (through June 2022).
[2] Each workforce development area has a corresponding local workforce development board.
[3] AVC is also the local healthcare partner in workforce development areas II (Manhattan) and V (Pittsburgh).
[4] The payments are for providers' time spent completing paperwork supporting treatment enrollees' RTW coordination, including activity prescriptions and RTW plans.

Exhibit III.1. RETAINWOR*KS* organization chart



*RETAINWOR*KS* Leadership Team

State titles: † Workforce System Coordinator, Employment Services Coordinator; ^RTW Nurse Navigator

RTW = return to work.

2. Lead workforce partner

The lead workforce partner, the Workforce Alliance of South-Central Kansas (Workforce Alliance), is the local workforce development board in Area IV. Workforce Alliance provides expertise on workforce services, such as career training and job search resources. It oversees implementation by (1) engaging employers in workforce development area IV; (2) recruiting, training, and managing employment counselors; and (3) enrolling eligible workers. Program leaders and staff said it was helpful that two of the same workforce development staff (employment counselors) continued from Phase 1, bringing their knowledge of RETAINWOR*KS* to implementation and service delivery and supporting the launch of implementation in the other local workforce development areas.

Program leaders and staff conduct targeted outreach to employers to encourage them to refer workers. Workforce Alliance staff members periodically present to one of the state leadership partners, the Kansas Society for Human Resource Management, to share information about RETAINWOR*KS.* Program staff also present about RETAINWOR*KS* at local Chamber of Commerce meetings. At least one employer has responded with interest in RETAINWOR*KS*, which could lead to future worker referrals. In addition, an employment counselor works with the local area IV workforce development board's business services team to inform employers about RETAINWOR*KS*.

3. Other partners

The need to develop multiple partnerships across workforce development areas has slowed RETAINWOR*KS* expansion beyond workforce development area IV, the location of the lead health care and workforce partners. In each local workforce development area, Commerce has one workforce partner[5] and at least one health care partner. Developing agreements with each of the local implementation partners has taken time; they require building relationships and completing paperwork to establish subrecipient contracts. In addition, the local health care partners have struggled to hire RTW coordinators due to hiring freezes and job posting restrictions that prioritize COVID-19 operations. As of May 2022, only workforce development area IV was fully staffed and operational.

Program leaders rely on partners to educate employers about RETAINWOR*KS* and encourage referrals. The governor, along with the Kansas Department of Administration and program staff, are working to make the State of Kansas government an employer partner so that RETAINWOR*KS* will be available to all state employees. Three employer partners (Kansas Business Group on Health, Mid-America Coalition on Health Care, and Society for Human Resource Management) assist in developing outreach messaging and employer education.

4. Coordination of program partners

Program leaders and staff expressed a strong commitment to RETAINWOR*KS* and a desire to help new partners launch RETAIN services. Staff in the lead workforce development area IV mentor other local implementation teams. This mentorship helps local implementation teams onboard staff to the complex program structure and understand how they can implement RETAINWOR*KS* within the context of their unique organizational processes. To support communication across partners and roles, program leaders hold frequent meetings. Each local workforce development area's implementation team (the workforce

[5] Each local workforce system partner is a local workforce development area board, which is associated with multiple workforce centers.

and health care partner) also meets regularly. Program staff said that an in-person meeting in April 2022 was especially helpful to building relationships and clarifying roles and processes.

C. Program environment surrounding RETAINWOR*KS*

1. Employment and policy environment

Compared with national rates, the unemployment rate in Kansas is lower and the employment rate of people with disabilities is higher (Exhibit III.2). Prominent industries in Kansas include aviation manufacturing, agricultural manufacturing, health care, cybersecurity, and call centers. Program staff said that one important barrier to work among people with disabilities is a lack of health insurance, which can prevent them from seeking needed medical care. Kansas did not expand Medicaid under the Affordable Care Act, so workers who lack insurance coverage through their employer are uninsured unless they purchase their own coverage.

Exhibit III.2. RETAIN program environment in Kansas

Economic indicators	Kansas	United States
Unemployment rate (June 2022)[a] (%)	2.4	3.6
Employment rate among working-age people without disabilities (2021)[b] (%)	80.1	75.0
Employment rate among working-age people with disabilities (2021)[b] (%)	44.1	37.0

[a] U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2022.

[b] Institute on Disability/University Center for Excellence in Disability, University of New Hampshire, Annual Disability Statistics Compendium, 2021.

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

2. COVID-19 pandemic

The COVID-19 vaccination rate in Kansas is 61 percent, which is lower than the 67 percent vaccination rate nationwide.[6]

Program leaders said the COVID-19 pandemic posed challenges to health system and provider capacity for RETAINWOR*KS*. Several health systems have experienced hiring freezes, limiting partners' ability to hire RTW coordinators to provide RTW services in additional workforce development areas. Providers have expressed having limited time to spend on RETAINWOR*KS* given staffing pressures. Program staff said clinic restrictions to prevent potential COVID transmission meant they could not distribute hard copies of program materials or meet with providers face-to-face.

Program leaders and staff said the COVID-19 pandemic also had mixed effects on work opportunities for RETAINWOR*KS* enrollees. While there are many open jobs, some people have less interest in working because they are reevaluating their priorities, receiving support from new multigenerational living arrangements, or must spend time caring for family.

[6] Johns Hopkins University Coronavirus Resource Center, 2022. Available at https://coronavirus.jhu.edu/region. Accessed April 28, 2022.

D. RETAINWOR*KS*'s enrollment is slow but expected to increase as additional workforce development areas launch implementation

RETAINWOR*KS* seeks to enroll workers with a work- or non-work-related injury or illness. The program encourages medical providers, employers, and local workforce centers to refer workers to RETAINWOR*KS*. At the time of the site visit, most referrals were coming from providers affiliated with the lead health care partner, AVC, in workforce development area IV.

The recruitment and enrollment process involves RTW coordinators and employment counselors. It includes the following steps: (1) a participating medical provider completes a referral form and sends it to the RTW coordinators; (2) an RTW coordinator contacts the potential enrollee and if the enrollee is interested, the RTW coordinator completes informed consent and alerts the potential enrollee they will be contacted by an employment counselor; (3) the employment counselor contacts the potential enrollee to collect paperwork confirming eligibility and then conducts random assignment. A summary of the recruitment and enrollment process is included in Appendix A (Exhibit A.2).

1. Early enrollment outcomes

During the first nine months of enrollment (October 22, 2021, through June 30, 2022), RETAINWOR*KS* enrolled 39 workers, or 1 percent of the program's goal of enrolling 4,000 workers. The first nine months of enrollment represent about one-third (28 percent) of the 32-month enrollment period. About 46 percent of all enrollees were treatment enrollees and 54 percent were control enrollees (Appendix A, Exhibit A.3).

2. Referral sources

The primary source of referrals is medical providers affiliated with the lead health care partner, AVC, in workforce development area IV.[7] Some referrals came from non-AVC occupational health providers in the same workforce development area, in response to outreach from the referral and enrollment lead and RTW coordinator staff. The program has received a limited number of referrals from local workforce centers, which inform their clients if they are potentially eligible for RETAIN.[8] Program staff and partners expect referrals to increase after implementation begins in the other four workforce development areas.

3. Outreach strategies

RETAINWOR*KS* staff conducts outreach to potential enrollees, medical providers, and employers using the program website, outreach materials, and presentations. The outreach materials include one-pagers about RETAINWOR*KS*, a poster, and flyers that partners can disseminate physically or electronically. Staff provide physical packets of information about the program for medical providers to share with their patients. In addition, staff developed a video about RETAINWOR*KS* in English and Spanish that health care partners can air in their waiting rooms.[9] Program staff are developing social media content to highlight enrollee success stories and organizing a committee to ensure alignment of marketing and outreach efforts across partners. RETAINWOR*KS*'s upcoming outreach plans include disseminating newsletters to partners and hosting educational webinars for employers.

[7] Each local implementation area will receive referrals from its local healthcare partner organization, shown in Exhibit III.1.
[8] The workforce system automatically checks applicants' eligibility for RETAIN.
[9] Partners in workforce development area IV are currently showing the video.

Program leaders and staff noted that workforce development areas outside area IV have not been fully ready to focus on outreach efforts. Another challenge is that program partners often have their own preferences for how they like to share messages; to address this, the RETAINWOR*KS* team created outreach materials that partners can adapt with their own branding.

4. Strategies for recruiting underserved populations

RETAINWOR*KS* staff plans to focus several future outreach efforts on underserved communities. Program staff said it plans to target social media content about the program to people living in low-income communities, identified as federal opportunity zones. In addition, staff plan to rely on existing relationships between workforce partners and local community partners to identify trusted leaders in underserved communities who could share information about RETAINWOR*KS* with their networks. Finally, RETAINWOR*KS* plans to establish a subrecipient contract with the Kansas Clinical Improvement Collaborative, which is a group of medical providers focused on efforts in western Kansas (a less populated area of the state). The subrecipient contract will allow RETAINWOR*KS* to recruit medical providers and hire additional RTW coordinators to provide RETAINWOR*KS* services in this more rural region.

5. Screening for eligibility

The RETAINWOR*KS* program enrolls people who have a work- or non-work-related injury or illness. The injury or illness must be one of the following: (a) a musculoskeletal injury, (b) a mental health disorder, (c) a chronic disease, or (d) another newly diagnosed illness or injury affecting the individual's employment. Enrollees must be employed or seeking employment, ages 18 to 64, and living or working in Kansas. They also must have a valid Social Security number and be legally authorized to work in the United States.

Program staff said a main challenge to recruiting potential enrollees is reaching them and gaining their trust to share the personal information needed to confirm eligibility. RTW coordinators call potential enrollees to review eligibility and initiate enrollment within three days of receiving a referral. If a potential enrollee does not answer, then the RTW coordinators follow up by text message or email (if available). However, program staff have heard that the text messages RTW coordinators send to follow up with potential enrollees are similar to a scam circulating in the state. To build trust and rapport, the RTW coordinators send a welcome flyer with their photos and brief information about themselves. Potential enrollees are reportedly more trusting after receiving this information. In addition, program staff noted that having providers give a physical packet of RETAINWOR*KS* information to patients (which clinic restrictions prevented earlier in the pandemic) has increased credibility when an RTW coordinator contacts a potential enrollee.

Another challenge to recruiting potential enrollees is the lengthy informed consent process, which some potential enrollees do not complete. There are four documents the RTW coordinator must review with the potential enrollee and complete, including a 9-page informed consent form that can take up to 45 minutes to review. Program staff noted that the lengthy documentation contributes to potential enrollees' hesitation to enroll, and some never complete the forms. Several program staff expressed frustration with random assignment, noting that this made the program difficult to explain to enrollees and added

complexity to the informed consent process. To make the process less overwhelming, RTW coordinators email the forms before meeting with the potential enrollee, so they have a chance to review the information and form a general understanding of RETAINWOR*KS* ahead of time.

"The control treatment is incredibly frustrating because we will have a really great participant that we think can be helped through the program and then they'll be put in the control group. . .It's hard enough sometimes to get people to take advantage of the program because there's sometimes mistrust of the government that then when we add an element like this, it's again difficult on our staff and frustrating to the customer."

Program Staff

6. Recruitment

After filling out the enrollment forms, one challenge to completing enrollment is the additional contact the employment counselor must make with the potential enrollee to verify eligibility and complete random assignment. For example, program staff said that one employment counselor's work telephone number appears as spam to some potential enrollees,[10] potentially discouraging them from answering the call.

At the stage of random assignment, employment counselors initially struggled to collect the documentation required to verify potential enrollees' identity and their authorization to work in the United States. Program staff said that many potential enrollees had trouble locating the documentation (for example, a physical Social Security card) and providing it to employment counselors who complete random assignment. This prevented their enrollment. In April 2022, the program adopted the same documentation requirements as the state's workforce centers, allowing greater flexibility in necessary documentation.

Only 11 percent of referred workers enroll into RETAINWOR*KS*. Program staff explained that this is because some referred workers fail to complete enrollment and others decline to enroll. Workers who declined to enroll reportedly did not trust the program enough to provide their personal information or thought they did not need the help. Other potential enrollees were already back at work and did not see a benefit to participating in RETAINWOR*KS*. For example, program staff said that potential enrollees referred from occupational health providers were often able to return to work after healing from their injuries without additional help.

In May 2022, program leaders were meeting with referring providers in area IV to identify ways to increase the enrollment rate among referred workers.

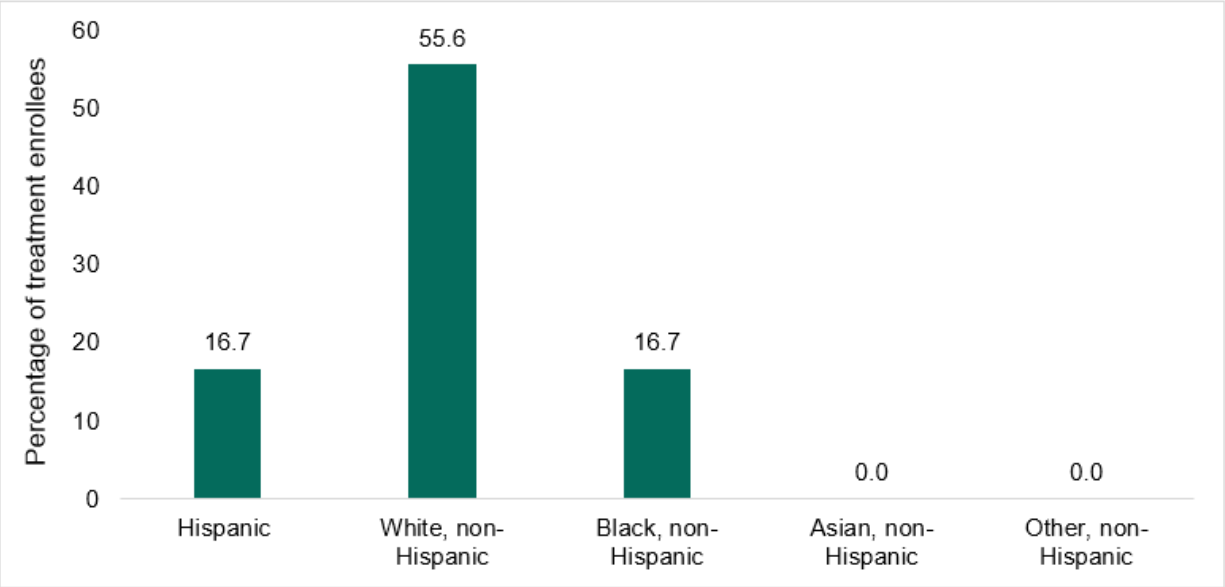
7. Treatment enrollee characteristics

We used enrollment data submitted by RETAINWOR*KS* to assess demographic characteristics for the 18 people who enrolled during the first nine months of the enrollment period (October 2021 to June 2022) and were assigned to the treatment group (Appendix A, Exhibit A.4). Many treatment enrollees were female (61 percent). The average age of the treatment enrollees was 41.[11] Just over half were White, non-Hispanic (56 percent), and the others were similarly distributed across the remaining racial and ethnic groups (Exhibit III.3). Half of the treatment enrollees had at least a high school diploma, GED, or certificate of completion (50 percent), and all preferred English (100 percent).

[10] Program staff reported that potential enrollees whose wireless carrier is T-Mobile said that phone calls from program staff appeared as spam.

[11] We are not able to report the percentage of treatment enrollees who were ages 50 years or older because of how few there were and the need to avoid disclosing information about specific people.

Exhibit III.3. Racial and ethnic characteristics of treatment enrollees (percentage)



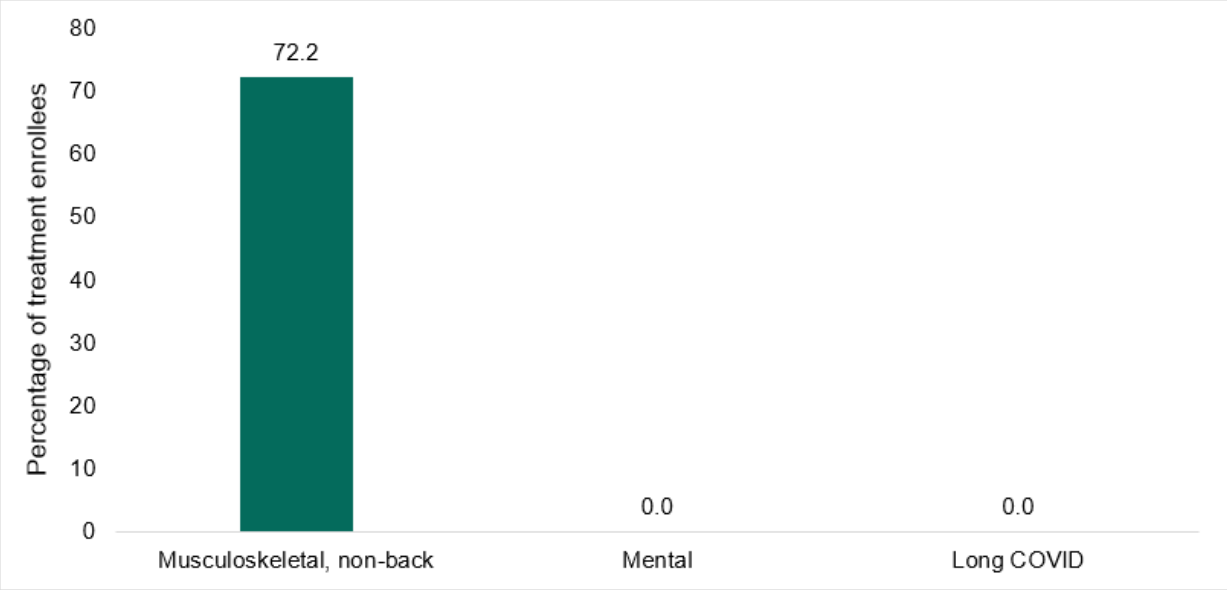
Source: RETAINWOR*KS* enrollment data through June 30, 2022.

Note: We suppressed the "More than one race" category to avoid disclosing information about particular people, which is why the percentages do not add up to 100.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network

We also used the enrollment data submitted by RETAINWOR*KS* to assess illness and injury characteristics for the same 18 treatment enrollees described above (Appendix A, Exhibit A.5). Most treatment enrollees reported a primary diagnosis of a non-back musculoskeletal condition (72 percent) (Exhibit III.4). RETAINWOR*KS* enrolls people with work- and non-work-related conditions, and 61 percent of enrollees reported their injury or illness was work related. Although people with a pre-existing condition are eligible, most treatment enrollees reported their illness or injury was a new condition at the time of enrollment (83 percent) and that their condition was a result of an accident or injury (89 percent). Treatment enrollees had an average of 38 days between their onset of primary diagnosis (either a new condition or a worsening of a chronic condition) and their enrollment in RETAINWOR*KS*.

Exhibit III.4. Primary diagnosis characteristics of treatment enrollees (percentage)



Source: RETAINWOR*KS* enrollment data through June 30, 2022.

Note: We suppressed ""Musculoskeletal, back" and "Other" to avoid disclosing information about particular people, which is why the percentages do not add to 100 percent.

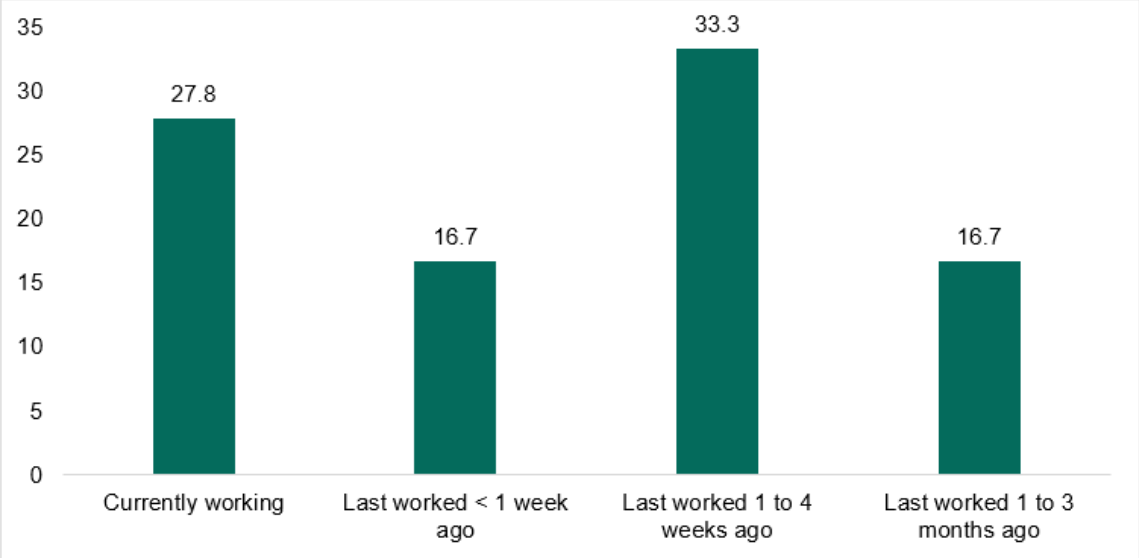
Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental; and Other. These groupings build on previous studies of return to work among injured or ill workers. We include the mapping of ICD-10 codes into these categories in Appendix A, Exhibit 5.

ICD = International Classification of Diseases; RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network

We also used the enrollment data submitted by RETAINWOR*KS* to assess recent work histories for the same 18 treatment enrollees described above (Appendix A, Exhibit A.6). All RETAIN programs must enroll workers who are employed or in the labor force, and for RETAINWOR*KS*, most treatment enrollees were employed (89 percent) at the time of enrollment. Many last worked within one month of enrollment (78 percent), and most last worked within three months of enrollment (95 percent) (Exhibit III.5). On average, treatment enrollees were employed full time (41 hours per week) before the onset of their injury or illness. Many treatment enrollees worked at their current or most recent job for less than two years (61 percent), and just over a quarter held this job for more than five years (28 percent). Over the last year, many treatment enrollees earned at least $1,000 per month (78 percent). The highest proportion of treatment enrollees held a production, transportation, or material moving occupation (39 percent) (Exhibit III.6). Other treatment enrollees held occupations in service (28 percent), management, professional, or related occupations and sales and office occupations.[12]

[12] We suppressed the percentages of treatment enrollees who held management, professional, or related occupations, and sales and office occupations to avoid disclosing information about particular treatment enrollees.

Exhibit III.5. Length of time since last worked before enrollment for treatment enrollees (percentage)

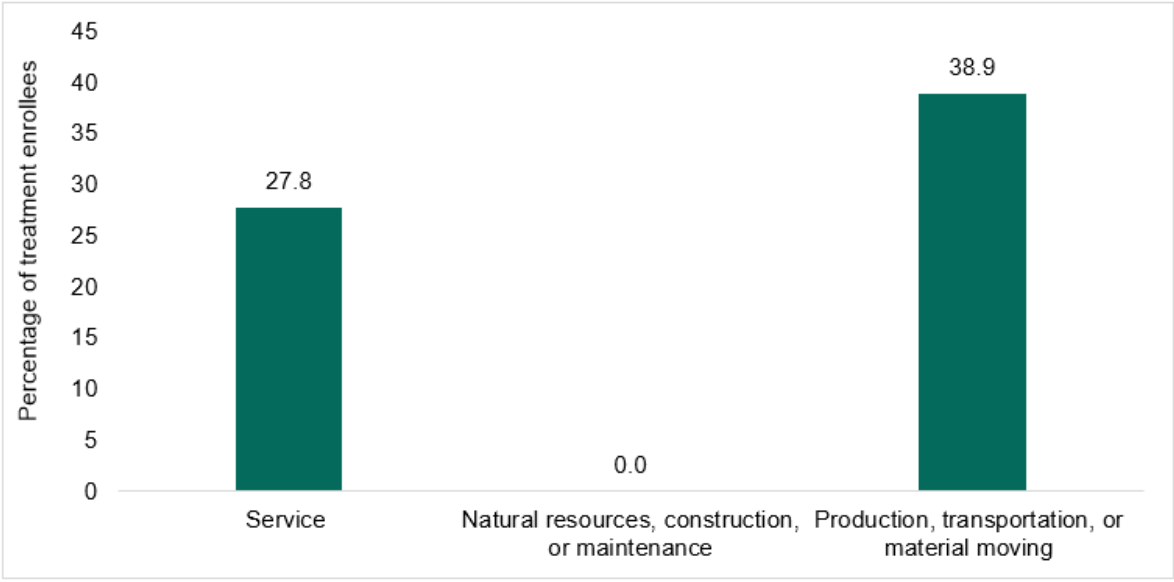


Source: RETAINWOR*KS* enrollment data through June 30, 2022.

Note: We suppressed "Last worked > 3 months ago" to avoid disclosing information about particular people, which is why the percentages do not add to 100 percent.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network

Exhibit III.6. Occupational classification of pre-injury/illness job for treatment enrollees (percentage)



Source: RETAINWOR*KS* enrollment data through June 30, 2022.

Note: We suppressed "Management, professional, or related occupations" and "Sales and office" to avoid disclosing information about particular people, which is why the percentages do not add to 100 percent.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network

We also used enrollment data to compare treatment enrollee characteristics to control enrollee characteristics. As outlined in the Evaluation Design Report, we expected treatment and control enrollees to have similar baseline characteristics because each state has a random assignment design (Berk et al. 2021). We found no significant differences between treatment and control enrollees in the characteristics examined (Appendix A, Exhibit A.4, Exhibit A.5, and Exhibit A.6).

E. RETAINWOR*KS's* early service delivery is going as planned in one of five workforce development areas but several factors might limit the program's success

At the time of the interviews in May 2022, program staff were delivering RTW services as planned in workforce development area IV. Several factors might limit the program's service delivery success. Program staff said it was unclear what percentage of medical providers had completed the training at participating practices because they share the invitation through a central point of contact. In addition, the majority of enrollees do not want the employment counselor to contact their employer, in contrast to program design. Finally, services have not yet launched in the other four workforce development areas, in part due to low enrollment and challenges hiring RTW coordinators.

1. Medical provider services

Lead health care partner staff connect practices with information on the required RETAINWOR*KS* training and manage payments to practices for the time that providers and office staff spend on RETAINWOR*KS* paperwork (Exhibit III.7). The health care partner will play this role in each of the local workforce development areas.

Exhibit III.7. RETAINWOR*KS* medical provider services

Program component	Description
Training medical providers	• Providers at participating practices must complete a 4-hour, self-paced online training on (1) RETAINWOR*KS* and its benefits, (2) the COHE model, and (3) the opioid crisis. • RETAINWOR*KS* is developing training for providers via the University of Kansas's Project ECHO. This training will offer continuing medical education credits.
Incentivizing medical providers	• Practices that have signed a letter of agreement with RETAINWOR*KS* receive the following on behalf of providers: – $100 for completion of referral form for successful referral to RETAINWOR*KS* – $50 for submitting an activity prescription for the enrollee – $25 for making or answering RETAIN-related phone calls – $100 for completing an RTW plan for the enrollee – $100 for completing a 30-day risk assessment for the enrollee

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; COHE = Center for Occupational Health and Education; ECHO = Extension for Community Healthcare Outcomes; RTW = return to work.

Program staff described challenges engaging providers in completing the medical provider training. Program staff do not communicate directly with providers about the training. Instead, they work with each participating practices' central point of contact to invite individual providers to complete the training. In addition, there is often a four-to-six-week lag between the time when providers are invited to take the training and the time when they are able to create a username and password to take the training. At the time of the interviews, program staff were uncertain about the percentage of medical providers

who had completed the training. Program staff are notified when a provider completes the training. However, they do not have easy access to a list of all the providers in each participating practice. Therefore, they must follow up with each participating practice to identify providers who have not completed the training. In addition, program staff noted that the 90-day timeframe to complete the training constitutes a significant portion of the six-month RETAINWOR*KS* service period for early enrollees and could result in a limited period to influence medical providers' care for enrollees.

Program staff are setting up optional training for participating providers on SAW/RTW principles using the Extension for Community Healthcare Outcomes model of peer mentorship. The model is a learning framework in which participants engage in a virtual community of peers where everyone teaches and learns.[13] The training will convene groups of medical providers to attend 15-minute lectures and discuss case studies. Staff anticipate this approach will be helpful to creating provider peer support in the many rural areas of the state where providers are otherwise isolated. Program staff are waiting for more providers to participate in RETAINWOR*KS* before launching the optional training.

Providers and practice staff are reportedly appreciative of payments for their time spent on RETAINWOR*KS*. Program staff said that providers are grateful that their time is valued. However, they noted that providers' motivation to spend time on RETAINWOR*KS* paperwork is driven by an interest in caring for the patient, more than an interest in the compensation for their practices.

2. RTW services

Two RTW coordinators in Area IV provide RTW coordination services to treatment enrollees (Exhibit III.8). RTW coordinators provide treatment enrollees with work activity prescriptions, based on restrictions identified by participating medical providers. Coordinators work with enrollees to develop an RTW plan identifying progressive steps to returning to work and meet weekly with the treatment enrollee. The RTW coordinators work closely with two employment counselors who provide social and employment supports to treatment enrollees. Employment counselors complete an individualized employment plan for interested enrollees to identify needed follow-up services, such as employment services or other supports.[14] If permitted, the employment counselors communicate with employers about accommodations or alternate work assignments. RETAINWOR*KS* offers incentive payments to treatment enrollees for reaching a series of milestones, including finalizing an RTW plan, meeting with the RTW coordinator and employment counselor, and returning to work. Services from RTW coordinators services and employment counselors end after six months or after the enrollee returns to work for eight weeks with no restrictions, whichever comes first.

[13] See https://hsc.unm.edu/echo/what-we-do/about-the-echo-model.html.

[14] For example, a workforce coordinator could put together a resume to connect someone with training or another job, pay for a work accommodation, and fund support services to help a treatment enrollee return to work (for example, getting their car fixed if it is their source of transportation to work).

Exhibit III.8. RETAINWOR*KS* RTW coordination services

Program component	Description
Coordinating RTW services	• RTW coordinator provides the treatment enrollee with work activity prescriptions, ongoing support, an RTW plan, and a 30-day risk assessment after returning to work.
Communicating among parties involved in RTW plan	• RTW coordinator and employment counselor work as a team to provide medical, social, and employment-related supports to the treatment enrollee. They communicate frequently and meet weekly to discuss cases and service coordination. • RTW coordinator communicates with medical provider to develop an activity prescription, which outlines work restrictions, and an RTW plan, which documents what an enrollee is able to do when they are ready to return to work without restrictions.
Monitoring treatment enrollee progress	• RTW coordinator meets with treatment enrollee weekly to assess their medical progress, identify potential accommodations, and conduct a 30-day risk assessment if the enrollee has not yet returned to work. • If a treatment enrollee returns to work, the RTW coordinator continues to check in at regular intervals (2, 4, and 8 weeks after RTW). • RTW coordinator updates the RTW plan every 30 days or as needed.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

One initial challenge to implementing RTW coordination services has been the complexity of roles and processes, some of which have changed over time. Program staff said an in-person, two-day meeting in April 2022 helped RTW coordinators and employment counselors better understand their roles in carrying out RETAINWOR*KS* services. They noted that the meeting and discussion brought clarity to existing tools, such as a workflow that documents the steps in enrollment and service delivery, and the staff who are responsible for each step. In addition, program staff said that one-on-one training and observation have helped newer staff learn the RTW coordination roles. They noted that webinars covering topics such as medical provider engagement are also helpful.

> *"Everyone across the state attended [the meeting in April 2022]. And so that was very very helpful just to have dialogue of "Well, how do you actually do this? I see the policy on paper or the instructions on paper, what does that look like?"*
>
> *-Program staff*

a. Coordinating RTW services

Program data submitted by RETAINWOR*KS* indicate that most treatment enrollees (89 percent) received RETAINWOR*KS* services, including RTW coordination services or other RTW services (Exhibit III.9). Many treatment enrollees (67 percent) had an established RTW plan. An average of about 26 days elapsed from enrollment to establishment of an RTW plan for treatment enrollees enrolled in RETAINWOR*KS*. As of the end of June, about 33 percent of treatment enrollees exited RETAINWOR*KS*. Treatment enrollees who exited received services for about 20 days.

Exhibit III.9. Treatment enrollees' receipt of RTW coordination services

Service received	Percentage of treatment enrollees
Received any services beyond enrollment[a]	88.9
Established RTW plan	66.7
Time elapsed between enrollment and established RTW plan (days)	25.7
Exited RETAINWOR*KS*	33.3
Duration of services (if exited) (days)	20.0
Referred to services beyond RETAINWOR*KS* after six months	0.0

Source: RETAINWOR*KS* service use data through June 30, 2022.

[a] Any services beyond enrollment includes establishing an RTW plan or receiving an employment service such as job search assistance, training, on-site job analysis, ergonomic assessment, or transitional work opportunities.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Program staff noted that RTW coordinators and employment counselors have characteristics and experiences that help them deliver services effectively. Several staff have continued from Phase 1, including by changing employers to stay with the program. They have developed accumulated knowledge of RETAINWOR*KS* and have demonstrated a dedication to the program. Program staff observed that being outgoing, friendly, and empathetic, with experience establishing trust with clients, has helped them develop rapport with enrollees during enrollment and service delivery. RTW coordinators have used their nursing skills and backgrounds during monitoring check-in meetings to assess enrollees' medical situations and encourage them to seek follow-up medical care when needed. For example, RTW coordinators encourage enrollees to contact their provider if they are showing signs of infection.

b. Communicating among parties involved in enrollee return to work

In Exhibit III.10, we list the possible avenues of communication among RTW coordinators and others involved in enrollees' RTW plans and the percentage of reported communications that occurred with each, as reported in the program data submitted by RETAINWOR*KS*. Based on these data, RTW coordinators communicated with a medical provider at least once for all treatment enrollees (100 percent). The data reflecting RTW coordinators' communication with an employer and with a workforce professional were not available to include in this report.

Exhibit III.10. Percentage of treatment enrollees whose RTW coordinator communicated with others involved in their return to work

Communication among parties involved in treatment enrollees' return to work	Percentage of treatment enrollees
Treatment enrollee's RTW coordinator communicated with employer at least once	N/A
Treatment enrollee's RTW coordinator communicated with medical provider at least once	100.0
Treatment enrollee's RTW coordinator communicated with workforce professional at least once	N/A

Source: RETAINWOR*KS* service use data through June 30, 2022.

Note: Several variables were missing for more than half of the treatment enrollees in the service use data submitted from RETAINWOR*KS*.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; N/A = not available.

Despite all treatment enrollees' RTW coordinators' communicating with their medical provider at least once, program staff noted delayed communication from medical providers as a challenge to delivering RTW coordination services. Medical providers are sometimes slow to complete forms related to the activity prescription and RTW plan, which can delay the completion of these steps with enrollees.

The RTW coordinators coordinate closely with their counterpart employment counselors to support treatment enrollees. RTW coordinators use a warm handoff to introduce a treatment enrollee to an employment counselor by identifying the workforce staff and the types of supports they can provide. RTW coordinators share notes from their weekly meetings with the enrollee with the employment counselors via KANSASWORKS, the workforce management information system. These shared notes, the ability to view employment counselor's notes about a treatment enrollee, and regular meetings between the RTW coordinators and employment counselors support their collaboration to support the enrollee.

c. Monitoring treatment enrollee progress

Program staff said standard assessment questions about a treatment enrollee's medical situation (for example, level of pain, provider interactions, transportation issues, medication changes, taking medications as prescribed) are helpful to monitoring the enrollee's progress. These questions often lead to a discussion of employment progress. RTW coordinators connect with employment counselors to handle enrollees' employment or social support needs.

The primary challenge to providing RTW services and monitoring progress is reaching treatment enrollees for weekly monitoring check-ins. Program staff explained that after treatment enrollees return to work, they often become busier and more difficult to reach. This poses a challenge for RTW coordinators to completing weekly monitoring check-ins with the working enrollee at two, four, and eight weeks after returning to work. Program staff noted that even before returning to work, some enrollees are difficult to reach. RTW coordinators offer to conduct some check-in meetings over email by sending the assessment questions in writing. However, the RTW coordinators make a point of meeting with enrollees for real-time monitoring check-ins at least every other week.

> *"Sometimes people will enroll and then they'll fall off and stop responding. They're like, oh I'm back at work, I don't really need you anymore. But we need those follow up calls to know if we need to do anything else before we let [them] go."*
>
> -Program Staff

3. Other RTW services

Two employment counselors provide employment services to treatment enrollees in Area IV (Exhibit III.11).

Exhibit III.11. Other RETAINWOR*KS* RTW services

Program component	Description
Supporting workplace-based interventions	• Employment counselor develops IEP with interested enrollee, which enables the counselor to assess enrollee's needs and provide follow-up services. • Employment counselor communicates with the RTW coordinator to identify interventions that are recommended by the treating provider. • When needed and permitted by the treatment enrollee, the employment counselor contacts the enrollee's employer to discuss workplace interventions, such as work schedule modifications and physical accommodations. • Employment counselor follows up with the enrollee after 2 weeks and again after 30 days to assess any changes that could affect the enrollee's ability to perform work duties and updates the IEP accordingly.
Retraining or rehabilitating enrollees	• RTW coordinator refers treatment enrollee to the employment counselor to determine needs for work accommodations, short-term or work-related training, registered apprenticeship programs, and other community services. • If a treatment enrollee must seek a new career, the employment counselor refers the enrollee to all Workforce Innovation and Opportunity Act programs for which the enrollee is eligible.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network;
IEP = individual employment plan; RTW = return to work.

a. Supporting workplace-based interventions

The primary challenge to providing workforce services is that most treatment enrollees do not want the RTW coordinator to contact their employer. Treatment enrollees who do not permit contact with their employer can still receive RTW coordination and workforce services that do not involve the employer. Program staff said treatment enrollees withhold permission for the contact because they are worried they will be fired. In one of the few cases in which the coordinators were permitted to arrange a work accommodation, the enrollee was a senior employee. Program staff indicated that when an enrollee's employer is engaged, supporting workplace-based interventions goes smoothly. RETAINWOR*KS* did not report any workplace accommodations in the service use data (Exhibit III.12). The discrepancy between the program data submitted by RETAINWOR*KS* and the information shared during the site visit interviews could be a result of the challenges RETAINWOR*KS* faces reporting program data for the evaluation, which we discuss in more detail below.

Exhibit III.12. Treatment enrollees' receipt of workplace-based interventions

RETAINWOR*KS* service use and data outcomes	Percentage
Received on-site job analysis	0.0
Received ergonomic assessment	0.0
Received workplace accommodation	0.0

Source: RETAINWOR*KS* service use data through June 30, 2022.
Note: Several variables were missing for more than half of the treatment enrollees in the service use data submitted from RETAINWOR*KS*.
RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network

b. Retraining or rehabilitating enrollees

The current program data on workforce services is limited. To avoid disclosing information about particular treatment enrollees, we suppressed the percentage of treatment enrollees who received job search services (Exhibit III.13). RETAINWOR*KS* did not report any other retraining or rehabilitation services for which programs submit data. Program staff said most treatment enrollees are seeking support services (such as support paying bills) to augment lost income while taking time off from work, and that type of service is not included in the required program data. Although they appreciate the workforce services, many treatment enrollees work physically demanding jobs and are reluctant to return to work when injured or ill.

Exhibit III.13. Treatment enrollees' receipt of retraining or rehabilitation services

RETAINWOR*KS* service use and data outcomes	Percentage
Received job search services	†
Received any training services	0.0
Participated in a transitional work opportunity[a]	n.a.
Received other employment services	0.0

Source: RETAINWOR*KS* service use data through June 30, 2022.

Note: Several variables were missing for more than half of the treatment enrollees in the service use data submitted from RETAINWOR*KS*.

† Suppressed to avoid disclosing information about particular individuals.

[a] Transitional work opportunity is a time-limited job at a new employer during an enrollee's recovery period to meet the enrollee's work restrictions until their employer is able to provide work accommodations. RETAIN*WORKS* does not provide transitional work opportunities to treatment enrollees.

n.a. = not applicable; RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

4. Service contrast

There is a clear distinction between treatment and control services. After randomization, employment counselors refer control enrollees to workforce center services available to the community. Neither the RTW coordinators nor the employment counselors have further contact with control enrollees. All enrollees (including control enrollees) are offered a Dynamic Athletic Research Institute motion scan, which provides information about their mobility and musculoskeletal risk factors. If the enrollee receives the scan, the results can serve as a baseline for medical providers to assess an enrollee's recovery. Treatment enrollees receive a follow-up scan when they return to work; control enrollees do not.

RETAINWOR*KS* offers unique RTW services relative to those available outside of the program. Workers injured on the job receive workers' compensation, which might cover physical therapy or include case management; however, services covered by workers' compensation benefits range widely by employer. Those with identified disabilities may receive services from VR. Any community member can seek employment services at a workforce center. None of these services are as individualized and frequent as what is offered in RETAINWOR*KS*, nor do they help people navigate the health system, bridge the gap between the workforce and medical systems, or offer incentives for engaging in RTW activities.

5. Collecting and reporting program data

RETAINWOR*KS* faces challenges reporting program data for the evaluation because it lacks a single management information system. Employment counselors use KANSASWOR*KS*, the management information system for the state's workforce centers. However, KANSASWOR*KS* does not align with the data elements required for the independent evaluation of RETAINWOR*KS*. As a result, employment counselors populate an Excel data collection tool using manual data entry of information they pull from structured fields and ad-hoc searches for information in case notes.

Another challenge is that KANSASWOR*KS* is not compliant with the Health Insurance Portability and Accountability Act. As a result, RTW coordinators enter non-medical information into KANSASWOR*KS* to coordinate with the employment counselors, but they enter medical data manually into the Excel tool. Program staff recently incorporated drop-down menus into the Excel tool to reduce the errors and missing information associated with free-text data entry fields. Overall, the current process is time consuming, risks errors and duplication, and requires repeated data entry of information contained in KANSASWOR*KS*. Program staff said the low number of enrollees keeps the process manageable.

Program staff are working to launch REDCap, a secure web application, to replace the manual data collection tool. However, employment counselors will still need to enter information from KANSASWOR*KS* into REDCap.

F. Areas for continued monitoring and evaluation technical assistance

Our analysis of the interview data collected in May 2022 and enrollment data collected through July 1, 2022, raised several issues that could affect the impact evaluation. The Mathematica team will continue to monitor these issues and provide evaluation technical assistance as needed.

- Early enrollment is low relative to the goal of 4,000 enrollees. As of July 1, 2022, RETAINWOR*KS* reached 1 percent of the target, while it is 28 percent through its 32-month enrollment period. If the program's enrollment continues at the current level, there is a high chance that the evaluation will fail to detect a true effect that is large enough to be important to policymakers.
- As of the virtual site visit conducted in May 2022, RETAINWOR*KS* was not yet implementing the program model in four of the five workforce development areas. This has limited enrollment. As additional local workforce development areas begin to enroll workers, it will be important to monitor whether the components are delivered as planned. Workforce development areas outside Area IV did not pilot the program in Phase 1.
- As of May 2022, it was unclear what percentage of medical providers at participating practices had completed the required training, because the invitation is shared through a central point of contact at each provider office and not directly from program staff to individual providers. If training completion is limited, then providers may not apply SAW/RTW best practices in their medical care for enrollees (and all patients) as intended in the program model. This could reduce the impact of RETAINWOR*KS*.
- RETAINWOR*KS* faces challenges reporting program data for the evaluation because it lacks a single management information system. In May 2022, program staff had incorporated structured drop-down fields into a manual data reporting tool and were planning to launch REDCap, a secure web application, to replace the manual reporting tool. However, even after launching REDCap, some workforce data reporting will still require ad-hoc searches through case notes, which could contribute to missing information.

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IV. RETAIN Kentucky

Key findings

- RETAIN KY emphasized building partnerships and identifying champions to promote and sustain systems changes that supported early SAW/RTW strategies.
- The COVID-19 pandemic reduced medical providers' and employers' capacity to prioritize RETAIN and had mixed effects on work opportunities for enrollees.
- The two lead health care partners, University of Kentucky HealthCare and the University of Louisville, were the primary source of referrals.
- During the first nine months of enrollment (October 2021 through June 2022), enrollment in RETAIN KY was lower than expected. Program staff and partners expected referrals and enrollment to increase after the health systems embedded a referral to RETAIN into the electronic medical record (EMR).
- Many treatment enrollees were employed at the time of enrollment, with the highest proportion of treatment enrollees holding a service occupation.
- Most treatment enrollees established an RTW plan. Fewer, about one-third, received employment services and 20 percent received a workplace accommodation.
- There could be a low contrast between RTW services provided to treatment enrollees and the limited services provided to control enrollees. Some treatment enrollees hesitated to sign release forms that enabled the RTW coordinator to communicate with employers, medical providers, and others. Just over 10 percent of treatment enrollees' RTW coordinators communicated with their employers at least once and 18 percent of their RTW coordinators communicated with a workforce professional as part of their RTW plan.
- The approval process required for offering continuing medical education credits for completing the training delayed the medical providers' training. Despite this delay, RTW coordinators communicated with a medical provider at least once for 67 percent of treatment enrollees.
- RETAIN KY's case management data system (CMDS) worked effectively to collect and report the data elements required for the evaluation. Program staff resolved initial challenges to providing unemployment insurance (UI) wage data to support the RETAIN evaluation in Phase 2.
- Several potential issues presented opportunities for continued monitoring and evaluation technical assistance. Enrollment was low and might have included workers unlikely to benefit from RETAIN. Some intervention components were not yet implemented as planned: medical provider training was temporarily delayed and there might have been limited contrast between the RTW services provided to the treatment and control groups.

A. Overview of Kentucky RETAIN

The Kentucky (KY) Office of Vocational Rehabilitation (OVR) is the lead agency for RETAIN Kentucky (RETAIN KY). RETAIN KY provides RTW coordination services to all treatment enrollees. For treatment enrollees with social needs that affect work, RTW coordinators provide referrals to support services. For treatment enrollees who are looking for work, RTW coordinators provide job development

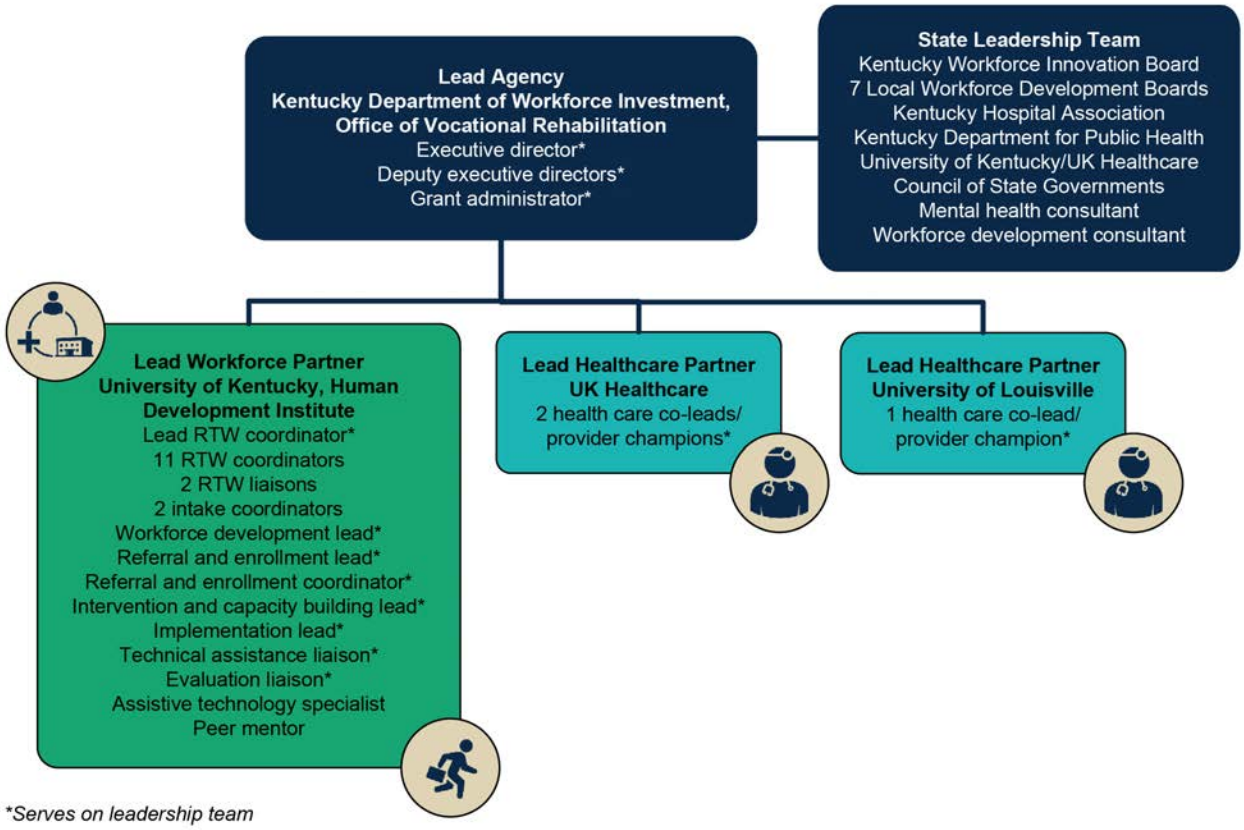
and placement assistance, workplace accommodation planning, and transferable skills analysis. The program catchment area is the entire state of Kentucky, including 120 counties.

This chapter documents recruitment, enrollment, and program operations roughly eight months after enrollment began and presents findings about the initial implementation of RETAIN KY.[15]

B. RETAIN KY established partnerships to support enrollment and service delivery

As the lead agency for RETAIN KY, OVR brings together a range of partners to support implementation (Exhibit IV.1). OVR received signed letters of commitment to support RETAIN KY from health systems, workforce agencies, and other organizations before submitting its Phase 2 application (Appendix B Exhibit B.1). In this section, we describe these partner organizations and their roles supporting RETAIN KY.

Exhibit IV.1. RETAIN Kentucky organization chart



*Serves on leadership team

RETAIN = Retaining Employment and Talent after Injury/Illness Network; RTW = return to work.

[15] RETAIN KY enrolled the first worker on October 18, 2021. We collected qualitative data about implementation experiences during semi-structured site visit interviews six months after the start of enrollment. We collected program data through nine months after the start of enrollment (through June 2022).

1. Lead health care partner

Both lead health care partners are large health systems. They support implementation by recruiting eligible patients and staff for enrollment into RETAIN KY. Three health care co-leads are embedded across the health systems and act as provider champions for recruiting medical providers to take the RETAIN KY training and refer patients.

2. Lead workforce partner

The lead workforce partner, University of Kentucky Human Development Institute, provides expertise on services for people with disabilities. It oversees implementation by (1) recruiting, engaging, and training medical providers; (2) engaging employers and workforce organizations; (3) enrolling referred workers; and (4) recruiting, training, and managing RTW coordinators who deliver SAW/RTW services.

Program staff attributed the smooth implementation of medical provider outreach to the referral and enrollment lead. Program staff described how she leverages her professional networks to forge connections and has longstanding relationships with health systems and knowledge of how they operate, which helps her to explain to health system leaders the value of RETAIN. She oversees two RTW liaisons, each of whom is dedicated to recruiting and engaging medical providers from one of the lead health care partners. The RTW liaisons also meet with clinical support staff, such as social workers and nurses, to provide ongoing education and engagement to promote patient referrals.

Program staff and partners described emphasizing the benefits of RETAIN as helpful to medical provider outreach. They noted that health system leaders appreciate that RETAIN offers medical providers and clinical support staff training about SAW/RTW best practices. This in turn increases the appeal of the health system to employers who engage them in value-based contracts (and who prefer their employees be treated using SAW/RTW best practices). Medical providers appreciate that RETAIN is a resource for supporting their patients, instead of adding to their workload. Medical providers also respond to RETAIN KY's goal of improving equity and inclusion for people with disabilities in the workforce.

> *"RETAIN really handles an area that's not in a physician's wheelhouse. They are very focused on getting the individual. They get them well physically, but when there are things that are preventing that physical recovery, whether it's mental, whether it's barriers, social barriers, whether it's something related to their job, the physician feels like that's kind of outside their wheelhouse."*
>
> Program leader

3. Other partners

The state leadership team includes partners who advise RETAIN KY on systems-level improvements that will support sustainability. These partners include statewide and local workforce agencies, the state public health agency, and consultants in workforce policy and mental health. Members of the state leadership team help identify potential solutions to program challenges and promote RETAIN within professional networks.

RETAIN KY partnered with four additional organizations to encourage referrals to RETAIN. The Chamber of Commerce helps program staff engage with employers who can refer their employees. Two additional medical providers, CHI St. Joseph Medical Group and Frazier Rehabilitation Institute, both refer potentially eligible patients and staff. Unite Us is an online platform for social support organizations. Participating organizations can use the platform to refer clients to RETAIN KY.

Program leaders are focused on promoting and sustaining systems changes that support SAW/RTW. They established the Inclusive Work Health Leadership Network, which includes medical professionals, public health leaders, and employers who collaborate to identify best practices and policy priority areas for building a workforce inclusive of workers with disabilities or at risk of developing a disability. They worked with the University of Kentucky to develop an RTW certificate to expand workforce capacity and understanding of SAW/RTW principles among students in medicine, public health, nursing, health sciences, education, business and economics, law, and pharmacy.

4. Coordination of program partners

The lead agency and lead workforce partner have a longstanding relationship and stay coordinated through regular meetings. The project leadership team, made up of staff from the lead agency and lead workforce partner, meets regularly to review the work plan from their approved Phase 2 proposal, assess progress on goals and identify risks to accomplishing them timely, and discuss operational challenges and potential solutions. During this meeting, the lead RTW coordinator shares challenges and feedback from the RTW coordinators, including how the management information system (the case management data system, CMDS) could better support service delivery.

C. Program environment surround RETAIN KY

1. Employment and policy environment

In Kentucky, about one-third of working-age people with disabilities were employed in 2021, a rate lower than the national average (Exhibit IV.2). Kentucky recently became an Employment First State, meaning that employment is the first and preferred option for people with disabilities. Program leaders view this development as providing momentum for RETAIN and supporting its long-term sustainability. Program staff and partners described a range of barriers to work for people with disabilities, including lack of transportation, employer stigma around disability, and local cultural expectations of applying for SSDI benefits instead of returning to work.

Exhibit IV.2. RETAIN program environment in Kentucky

Economic indicators	Kentucky	United States
Unemployment rate (June 2022)[a] (%)	3.7	3.6
Employment rate among working-age people without disabilities (2021)[b] (%)	74.7	75.0
Employment rate among working-age people with disabilities (2021)[b] (%)	32.3	37.0

[a] U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2022.

[b] Institute on Disability/University Center for Excellence in Disability, University of New Hampshire, Annual Disability Statistics Compendium, 2021.

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

2. COVID-19 pandemic

The COVID-19 vaccination rate in Kentucky is 58 percent, which is lower than the 67 percent vaccination rate nationwide.[16]

[16] Johns Hopkins University Coronavirus Resource Center, 2022. Available at https://coronavirus.jhu.edu/region. Accessed April 28, 2022.

Program leaders and staff described mixed effects of the COVID-19 pandemic on RETAIN KY. In Phase 1, the program shifted to virtual recruitment of referral sources and RTW service delivery. Most recruitment and service delivery remain in a virtual format in Phase 2, which poses challenges to forging connections and conducting assistive technology assessments for activities of daily living and work accommodations. However, virtual outreach and service delivery enable the program to have a statewide reach. At the same time, the pandemic has reportedly contributed to burnout among health care providers, employers, and workers, who struggle to prioritize RETAIN with other demands on their time.

Program leaders and staff said the COVID-19 pandemic also had mixed effects on work opportunities for RETAIN enrollees. It has reportedly increased remote work opportunities and employers' acceptance of remote work. This alleviates some barriers to work, such as transportation and the need for certain accommodations. However, they said it has made some enrollees experience greater stress and anxiety about work, including concerns about exposure to COVID-19 in a job setting. Program leaders and staff also described the pandemic as having adverse effects on mental health, substance use, and domestic violence in Kentucky.

D. RETAIN KY's enrollment is slow but expected to increase after partner health systems embed referrals into the electronic medical record

The primary sources of referrals are from clinical support staff at the two lead health care partners, University of Kentucky HealthCare and University of Louisville. RETAIN KY seeks to enroll any worker with illness or injury who comes into contact with various referral sources or program outreach materials. This focus has not changed since the start of Phase 2 enrollment. A summary of the recruitment and enrollment process is included in Appendix B (Exhibit B.2).

1. Early enrollment outcomes

During the first nine months of enrollment (October 18, 2021, through June 30, 2022), RETAIN KY enrolled 200 workers, or 6 percent of its goal of enrolling 3,200 workers. The first nine months of enrollment represent about one-third (28 percent) of the total 32-month enrollment period. Approximately 51 percent of all enrollees were treatment enrollees and 49 percent were control enrollees (Appendix B Exhibit B.3).

2. Outreach strategies

RETAIN KY uses a combination of outreach materials and events to engage potential enrollees and referral sources, including medical providers, employers, community organizations, and workers. Program staff described the materials as using non-stigmatizing language, being available in multiple languages, and including a quick response (QR) bar code that links potential enrollees to screening questions and an opportunity to request outreach. The lead workforce partner regularly engages with employers to encourage them to refer workers to RETAIN. Program staff host a virtual monthly employment seminar series to build awareness of RETAIN among employers and reinforce SAW/RTW best practices. Staff also meet with employers and workforce groups to educate them about RETAIN and encourage them to refer workers. For example, program staff said the Kentucky Chamber of Commerce created an opportunity for them to present to more than 260 employers.

Program staff reported that employers viewed RETAIN as beneficial. Program leaders said direct supervisors of enrollees appreciate that RETAIN facilitates their conversations with human resources staff

about an enrollee's job functions and SAW/RTW best practices. Employers are interested in learning about how to support workers with long COVID symptoms and see RETAIN as an opportunity to do so.

3. Strategies for recruiting underserved populations

Program staff conduct outreach to organizations that serve underserved populations. They have provided outreach materials to Family Resource Centers, which are located in public schools throughout the state and provide support to students and families in need. Program staff have also outreached to the Kentucky Rural Health Association, which focuses on equitable access to health care for people who live in rural underserved areas. In addition, program staff have worked with other entities—including University of Kentucky extension offices, libraries, and police departments—to disseminate the outreach materials to local communities and vulnerable populations. To date, these efforts have generated a limited number of referrals.

4. Referral sources

Clinical support staff (for example, nurses and case managers) at the two lead health care partners are the primary sources of referrals. Providers also refer patients. Program staff and partners said providers and clinical support staff offer patients program materials that include a QR code to self-refer to the program. Program staff and partners expect referrals to increase after the health systems embed a referral to RETAIN into the EMR, allowing providers and staff to refer patients to RETAIN during medical appointments.[17]

5. Screening for eligibility

The RETAIN KY program enrolls workers with an injury or illness unrelated to work. Intake coordinators review referral information to screen for eligibility. Eligible workers must be employed within the last 12 months with earnings of $1,000 or more in at least one month and live in Kentucky. This focus complements Kentucky's workers' compensation system, which supports SAW/RTW for workers with work-related injuries or illnesses.

In early 2022, DOL allowed the state to enroll workers who applied for or were already receiving SSDI benefits.[18] One program partner explained that the time between an individual's application for SSDI benefits and SSA's decision (the claim adjudication period) is lengthy, and it is possible to help someone stay at work or return to work during that period. However, one program staff person noted that RETAIN is designed to help workers early in the onset of disability to potentially prevent applications for SSDI or receipt of SSDI. Enrolling workers who already applied for or are receiving SSDI could affect the program's impact on future applications for SSDI and receipt of SSDI.

The primary challenge with confirming eligibility is that it can be difficult for intake coordinators to reach potential enrollees. For example, some potential enrollees are still in the hospital and have limited follows up with the referral source for other contact information. Program staff said it is helpful that intake coordinators are persistent in trying to reach potential enrollees in multiple ways through multiple contact

[17] University of Louisville Health added this feature into its EMR in March 2022, allowing providers to refer patients to RETAIN during medical appointments. University of Kentucky HealthCare will also embed a referral into its EMR this summer after delaying the change due to shifting priorities, including COVID-19 response.
[18] DOL updated the guidance to states in May 2022 to exclude workers who applied for or were already receiving SSDI benefits. As of June 2022, 7.9 percent of treatment enrollees were receiving SSDI or SSI and 21.8 percent had applied for or received SSDI or SSI in the past three years.

attempts, and they ask potential enrollees for their availability to speak with them about RETAIN. Intake coordinators use a script to help them explain RETAIN and its benefits to potential enrollees.

> *"[Some] individuals who have been referred to us are still in the hospital and receiving therapy. . . Sometimes the challenge is reaching those people, and catching them at a time that works for them to spend a few minutes. . . explain[ing] the program. . . I think [the challenge is] catching people at the time when we can most benefit them and telling them how we can help them."*
>
> Program Leader

Another challenge to screening potential enrollees is determining whether it is too early in their recovery to benefit from RETAIN. The eligibility criteria do not address medical readiness for work. Program staff described enrollees who had been referred too early in their recovery to benefit from RTW services (for example, those who experienced traumatic brain injury, stroke, or amputation).[19] Program staff and partners said it is helpful to have the potential enrollee and their referring provider determine if it is a good time receive RETAIN services.

6. Recruitment

Some workers are reluctant to agree to be referred to or enroll in RETAIN KY. Program staff and partners said that some potential enrollees did not want to be part of a research study. Others were uncomfortable about the possibility they could be assigned to the control group because RETAIN is a research study and not a program. To address these concerns, program staff have adapted the messaging to encourage reluctant workers and avoid the term "control group" and instead describe expedited services.

Other workers simply were not interested in RETAIN services. Program staff reported that some potential enrollees thought they had the resources they needed to stay at work/return to work or preferred to avoid viewing their illness or injury as a disability due to perceived stigma. Other potential enrollees were not interested in returning to work. They said some workers preferred to avoid returning to work because of the stress and anxiety they experienced working during the pandemic. Some workers reportedly followed peers or family members who applied for and received disability benefits, instead of returning to work.

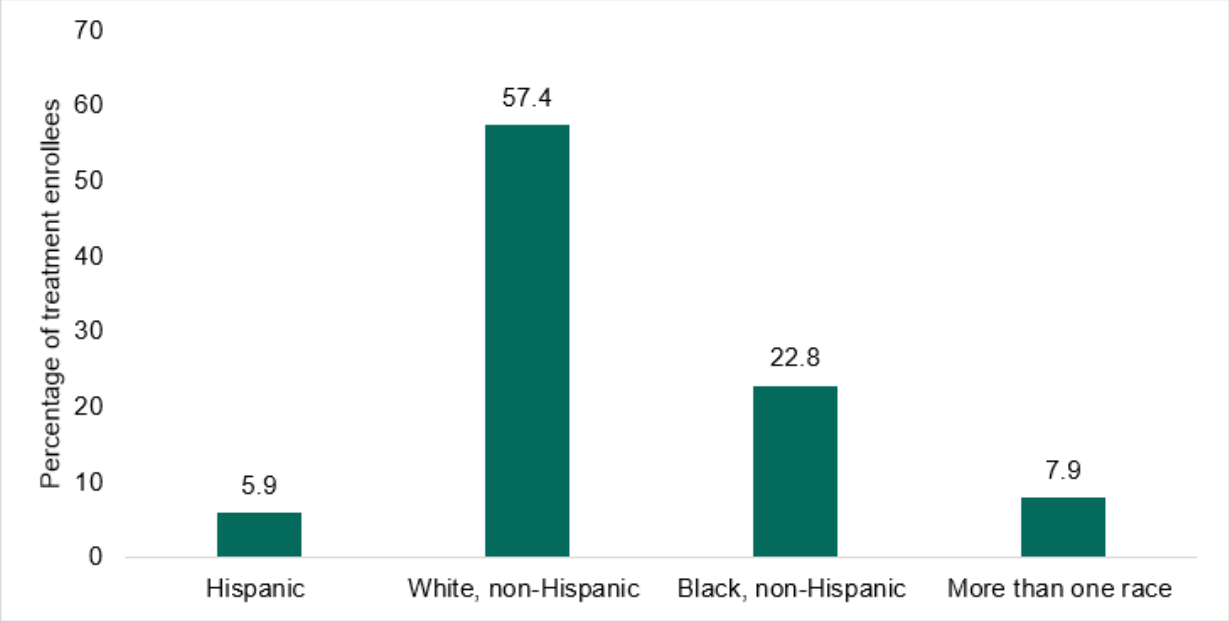
Referrals from trusted sources are helpful for enrollment. Program staff and partners said that patients tend to follow up on a referral to RETAIN when it comes from a trusted provider. In addition, workers who hear about RETAIN from a family member or someone else who has benefited from RETAIN are likely to enroll.

7. Treatment enrollee characteristics

We used enrollment data submitted by RETAIN KY to assess demographic characteristics for the 101 people who enrolled during the first nine months of the enrollment period (October 2021 to June 2022) and were assigned to the treatment group (Appendix B, Exhibit B.4). A little more than half of the treatment enrollees were male (51 percent). The average age of the treatment enrollees was 45, and 41 percent were age 50 or older. Most were either White, non-Hispanic (57 percent) or Black, non-Hispanic (23 percent) (Exhibit IV.3). Most of the treatment enrollees had at least a high school diploma, GED, or certificate of completion (92 percent), and almost all preferred English (97 percent).

[19] Intake coordinators invite people not ready for RTW to call back in the future.

Exhibit IV.3. Racial and ethnic characteristics of treatment enrollees (percentage)



Source: RETAIN KY enrollment data through June 30, 2022.

Note: We suppressed the categories Asian, non-Hispanic and Other, non-Hispanic to avoid disclosing information about particular people, which is why the percentages do not add to 100.

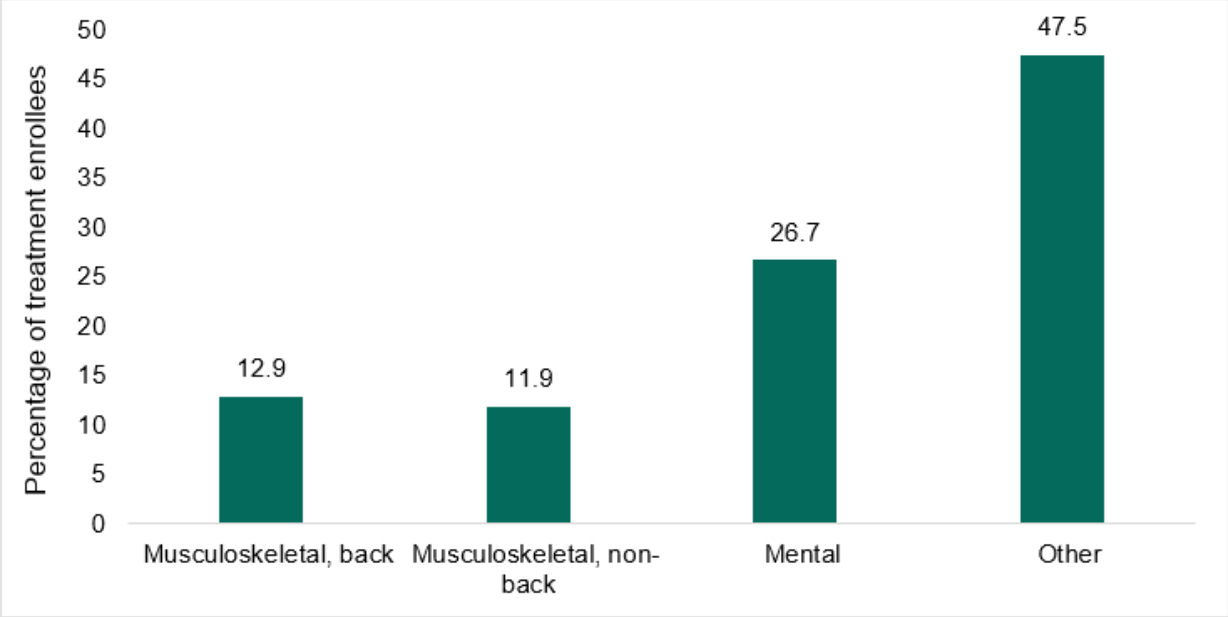
RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

We also used the enrollment data submitted by RETAIN KY to assess illness and injury characteristics for the same 101 treatment enrollees (Appendix B, Exhibit B.5). The RETAIN KY program enrolls workers with an injury or illness unrelated to work, but 4 percent of enrollees reported their injury or illness was work related. Nearly half of treatment enrollees reported a primary diagnosis of a condition that did not fall under RETAIN's four identified primary diagnosis categories (Exhibit IV.4). About one-quarter of enrollees reported that their primary diagnosis was a mental condition (27 percent). People with a new or pre-existing condition are eligible for enrollment. For RETAIN KY, half of enrollees reported their illness or injury was a new condition at the time of enrollment (50 percent). Many of the RETAIN KY enrollees reported primary conditions that are not a recent diagnosis. Treatment enrollees reported an average of about five years (1,868 days) between the onset of their primary diagnosis and enrollment in RETAIN KY.[20] Even among enrollees with a new condition, the average time between diagnosis and enrollment exceeds a year. [21]

[20] In all, 38 of the 101 treatment enrollees (38 percent) in RETAIN KY reported that the onset of their primary diagnosis occurred before 2020. RETAIN KY confirmed that this finding is a result of a data entry error that was corrected in July 2022. The enrollment data submitted by RETAIN KY before June 2022, which is included in this report, was not retroactively corrected.

[21] New conditions in the RETAIN KY enrollment data include onset of primary diagnosis dates from 2002 to 2022.

Exhibit IV.4. Primary diagnosis characteristics of treatment enrollees (percentage)



Source: RETAIN KY enrollment data through June 30, 2022.

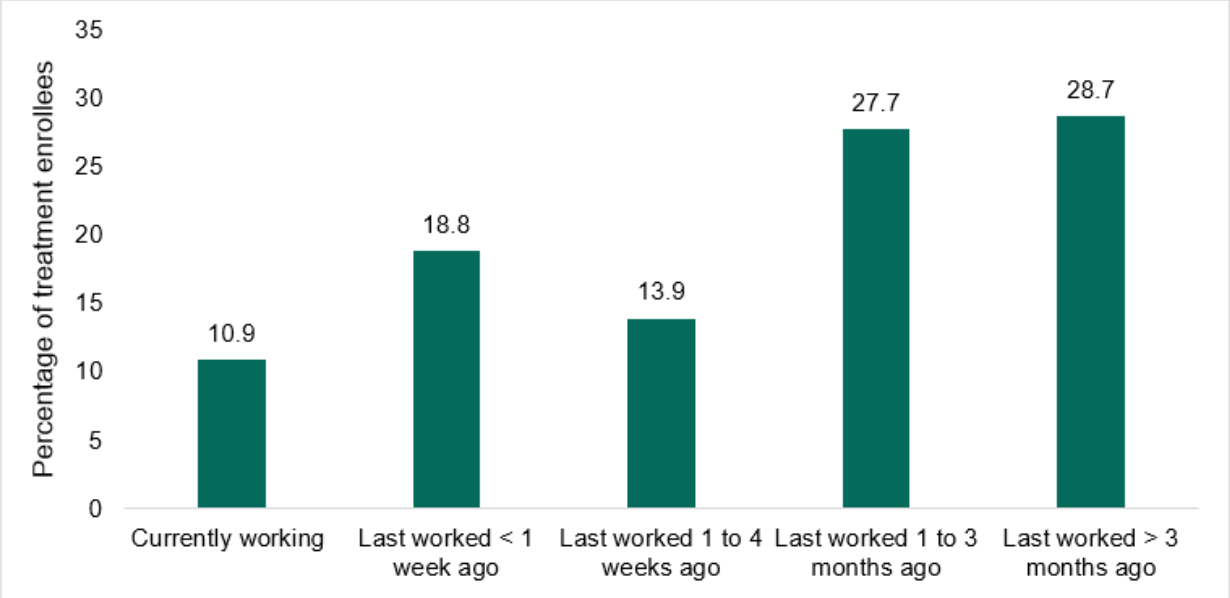
Note: We suppressed the Long COVID category to avoid disclosing information about particular people, which is why percentages do not add to 100.

Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental; and Other. These groupings build on previous studies of return to work among injured or ill workers. We include the mapping of ICD-10 codes into these categories in Appendix B, Exhibit 5.

ICD = International Classification of Diseases; RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data submitted by RETAIN KY to assess recent work histories for the same 101 treatment enrollees described above (Appendix B, Exhibit B.6). All RETAIN programs must enroll workers who are employed or in the labor force, and, for RETAIN KY, many treatment enrollees were employed at the time of enrollment (69 percent). A little less than half of treatment enrollees worked within one month of enrollment (44 percent), and many last worked within three months of enrollment (71 percent) (Exhibit IV.5). On average, treatment enrollees were employed close to full-time (37 hours per week) before onset of injury or illness. A little more than half of enrollees worked at their current job or most recent job for two years or less (52 percent), and 29 percent worked at their current job for more than five years. In the year before enrollment, many treatment enrollees (74 percent) worked at a job that paid at least $1,000 per month. The highest proportion of treatment enrollees held a service occupation (35 percent) (Exhibit IV.6.). Other treatment enrollees held occupations in management, professional, or related (26 percent); production, transportation, or material moving (26 percent); natural resources, construction, or maintenance (5 percent); or sales and office (9 percent).

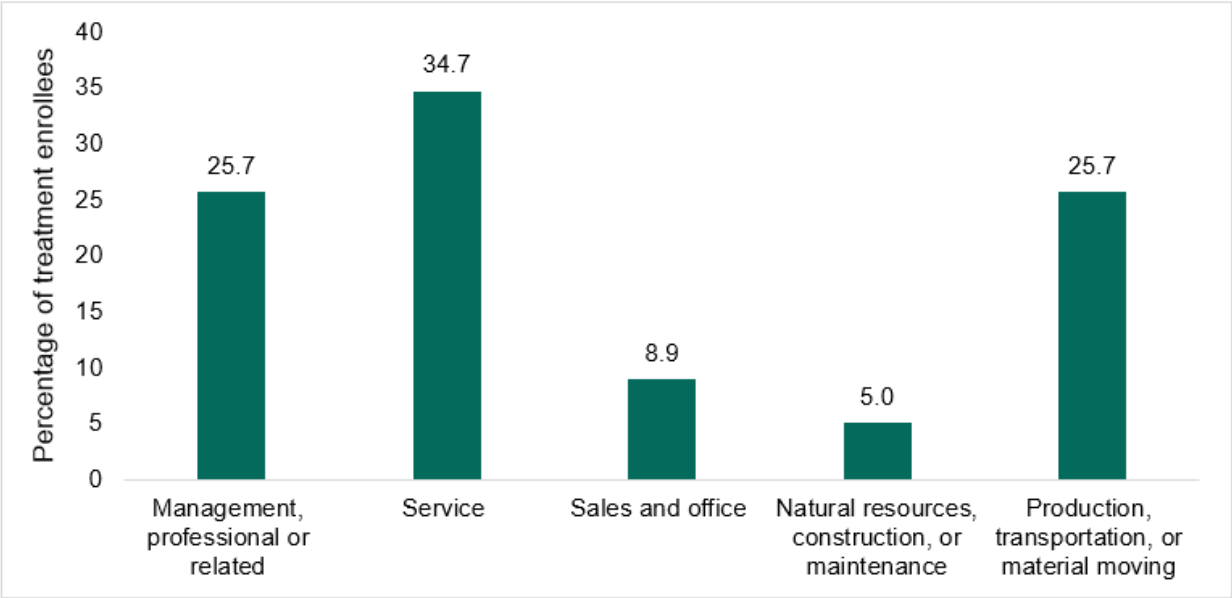
Exhibit IV.5. Length of time since last worked before enrollment for treatment enrollees (percentage)



Source: RETAIN KY enrollment data through June 30, 2022.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Exhibit IV.6. Occupational classification of pre-injury/illness job for treatment enrollees (percentage)



Source: RETAIN KY enrollment data through June 30, 2022.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to compare treatment enrollees' characteristics with control enrollees' characteristics. As outlined in the Evaluation Design Report, we expected treatment and control enrollees to have similar baseline characteristics because each state has a random assignment design (Berk et al. 2021). We found no significant differences between treatment and control enrollees (Appendix B, Exhibit B.4, Exhibit B.5, and Exhibit B.6).

E. RETAIN KY's early service delivery is going as planned with the exception of a delay in the availability of medical provider training

At the time of the interviews in April 2022, program staff were implementing RTW coordination services as planned in the RETAIN KY program model. Enrollee reluctance to sign release of information forms might be limiting the contrast between services to the treatment and control groups, but the extent of this issue is not yet clear. Program staff were providing outreach about RETAIN to medical providers, but training emphasizing SAW/RTW practices was delayed in review to be approved for continuing medical education credits.

1. Medical provider services

Lead workforce partner staff provide outreach to medical providers about RETAIN (Exhibit IV.7). They share the benefits of providing SAW/RTW coordination services to workers who are injured or ill and information about how they can refer patients to the program.

Exhibit IV.7. RETAIN KY medical provider services

Program component	Description
Training medical providers	• Practitioner will be able access in-person and/or online training covering SAW/RTW best practices and the RETAIN program (such as referral processes). • The University of Louisville Physical Medicine and Rehabilitation physicians' group will train residents to offer alternative treatments to opioids to all patients, including RETAIN treatment and control enrollees.
Incentivizing medical providers	• The lead workforce partner will offer compensation to practitioners who complete post-training surveys on knowledge of occupational health best practices and satisfaction with training: $100 for post-survey 1 and $50 for post-survey 2 (60 days later).

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; SAW = stay at work.

The planned medical provider training on SAW/RTW best practices is in review to be approved for continuing medical education credits.[22] Lead workforce partner staff revised the training used in Phase 1 and sought approval to offer continuing medical education credits as an incentive to complete the training. The program will offer incentive payments to medical providers who also complete two surveys after completing the SAW/RTW best practices training. The surveys will gather feedback on the training and assess how medical providers use the information in their practice. To date, RETAIN KY has not provided any incentive payments but expects to do so when the training is approved for continuing medical education credit.

[22] Program staff introduce RETAIN KY to medical providers as part of other forums, such as grand rounds and larger training events.

2. RTW coordination services

Nine RTW coordinators provide enhanced services to treatment enrollees (Exhibit IV.8). Enhanced services include developing an RTW plan and communicating with the enrollee's employer, medical provider, and others to coordinate their SAW/RTW services as needed. Enhanced RTW services end after six months or when the treatment enrollee returns to work with a completed RTW plan, whichever comes first.

Exhibit IV.8. RETAIN KY RTW coordination services

Program component	Description
Coordinating RTW services	• RTW coordinator engages with the treatment enrollee and reviews their medical information and work restrictions to develop an individualized RTW plan. The plan outlines the steps for the treatment enrollee to maintain employment, including an RTW date and services needed. • RTW coordinator communicates with treatment group member weekly using individual's preferred contact method. • RTW coordinator assists the treatment enrollee with addressing social needs that may pose barriers to their participation in RETAIN or RTW (such as housing, rent, food, transportation, child care, clothing, and mental health services).
Communicating among parties involved in RTW plan	• RTW coordinator contacts the treatment enrollee's employer, medical provider, and others involved in their RTW plan. RTW coordinator communicates with short- and long-term disability insurance carriers on behalf of the treatment enrollee. • RTW coordinator trains the treatment enrollee on self-advocacy skills and encourages them to communicate with others involved in their RTW plan. • The RETAIN database includes flags to alert RTW coordinators of any communication or information-sharing issues among others involved in a treatment enrollee's RTW plan.
Monitoring treatment enrollee progress	• RTW coordinators monitor treatment enrollees' progress through weekly communications. The coordinator asks the enrollee a list of questions about recent medical appointments and the status of steps the enrollee has been working on. • RTW coordinator records every interaction with treatment enrollee, their employer and medical provider (such as requests for job descriptions, the enrollee's paid time-off or leave status, work restrictions, workplace accommodation needs, and the enrollee's eligibility for returning to work or rehire) into the CMDS. • RTW coordinator uses the CMDS to track modifications to RTW plans, accommodations, and concerns about the enrollee's safety.

CMDS = case management data system; RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Program staff said that the opportunity for RTW coordinators to take ongoing trainings helps foster a growth-oriented environment. RTW coordinators receive intensive training on an evidence-based vocational case management approach called the Crux model.[23] Ongoing trainings cover a range of topics including the CMDS, inclusive communication, universal design, interacting with the criminal justice system, long COVID, and managing mental health and substance use challenges in the workplace. Trainings have given RTW coordinators and other program staff an opportunity to connect. At the same time, the virtual training format sometimes makes it more difficult for staff to engage in the content.

[23] The Crux model is centered on the worker's needs and interests and has been used for about 30 years since being developed by staff at the lead workforce partner.

a. Coordinating RTW services

Program data submitted by RETAIN KY indicate that most treatment enrollees (90 percent) received RETAIN KY services, including RTW coordination services or other RTW services (Exhibit IV.9). Most treatment enrollees (89 percent) had an established RTW plan. An average of 3.9 days elapsed between enrollment to establishment of an RTW plan for treatment enrollees in RETAIN KY. As of the end of June 2022, about 43 percent of treatment enrollees had exited RETAIN KY. Treatment enrollees who exited the program received services for about 64 days (about two months).

Exhibit IV.9. Treatment enrollees' receipt of RTW coordination services

Service received	Percentage of treatment enrollees
Received any services beyond enrollment[a]	90.1
Established RTW plan	89.1
Time elapsed between enrollment and established RTW plan (days)	3.9
Exited RETAIN KY	42.6
Duration of services (if exited) (days)	64.0
Referred to services beyond RETAIN KY after six months	†

Source: RETAIN KY service use data through June 30, 2022.

† Suppressed to avoid disclosing information about particular people.

[a] Any services beyond enrollment includes establishing an RTW plan or receiving an employment service such as job search assistance, training, on-site job analysis, ergonomic assessment, or transitional work opportunities

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

The RTW coordinators' diverse personal and professional backgrounds reportedly help them understand enrollees' unique situations and the barriers they face in returning to work. The coordinators come from multiple races, ethnicities, and language backgrounds and have past roles in social work, VR, and occupational therapy. Program leaders said that these backgrounds help RTW coordinators provide services that appeal to a diverse set of enrollees.

"Teaming up with [enrollees], and helping them … helps to build that rapport, and ... once they are able to feel at least comfortable in talking with us, and that trying to get some of these programs in place to assist them with their rent or the utility bills, then we can move forward with the other issues which is how are things going with the job, what do you need to be able to do to get back to work, communicating, getting information about their position, about their work."

Program Staff

RTW coordinators work to establish trust with enrollees. Program staff said they build trust by expressing a sincere desire to help, offering support without judgment, and explaining their goal is to empower the enrollee to be successful after their involvement with RETAIN KY services ends. Program leaders and staff observed that trust builds as enrollees see the RTW coordinator listening to them and prioritizing their needs. Establishing trust with enrollees reportedly helps RTW coordinators to achieve a deeper understanding of the enrollee's situation, needed services, and progress.

RTW coordinators connect enrollees with resources to address social needs as a necessary complement to supporting their work-related needs. According to program staff, many treatment enrollees experience unmet social needs that prevent them from staying at work or returning to work, such as mental health

conditions, substance use disorders, food insecurity, and homelessness. Program staff said the Unite Us platform helps RTW coordinators make these referrals.[24]

Program staff reported that RTW coordinators were well-supported in delivering services. Program staff said RTW coordinators regularly consult with each other and other experts, such as an assistive technology specialist, a peer mentor, and a mental health consultant who is an expert on mental health and substance use disorders. They hold weekly case reviews with provider champions from the partner health systems to present challenging cases. Provider champions reportedly share their insights with RTW coordinators on what they might be missing about the case or could be doing better. Program leaders and staff said both RTW coordinators and provider champions benefit from this dialogue, which deepens their mutual understanding of the many issues involved in staying at work or returning to work.

> *"These coordinators…talk about their cases, and they brainstorm, and they reach out to each other, and so …there's always going to be somebody who can chime in and be helpful."*
>
> Program Leader

b. Communication among parties involved in enrollee return to work

In Exhibit IV.10, we list the possible avenues of communication among RTW coordinators and others involved in enrollees' RTW plans, namely the employer and medical provider. We also list the percentage of reported communications that occurred in each as reported in the program data submitted by RETAIN KY. Based on service use data from RETAIN KY, RTW coordinators communicated with a medical provider at least once for 67 percent of treatment enrollees, with a workforce professional at least once for 18 percent of enrollees, and with an employer at least once for 12 percent of enrollees.

Exhibit IV.10. Percentage of treatment enrollees whose RTW coordinator communicated with others involved in their return to work

Communication among parties involved in treatment enrollees return to work	Percentage of treatment enrollees
Treatment enrollee's RTW coordinator communicated with employer at least once	11.9
Treatment enrollee's RTW coordinator communicated with medical provider at least once	67.3
Treatment enrollee's RTW coordinator communicated with workforce professional at least once	17.8

Source: RETAIN KY service use data through June 30, 2022.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Before RTW coordinators can communicate with employers and medical providers, treatment enrollees must sign release of information forms, but some treatment enrollees were hesitant to sign these releases.[25] For example, some enrollees were uncomfortable providing access to their medical records and others were concerned about identity theft. The enrollee can electronically sign different releases and update their releases at any time; releases for mental health care require a wet signature. Several program staff said that some initially hesitant treatment enrollees provided permission after establishing trust with the RTW coordinator over the first few meetings. However, another staff person estimated that more than

[24] Unite Us is an online platform for referrals from community agencies to RETAIN and from RTW coordinators to community agencies.

[25] Enrollees receive an email with a link to a release of information form stored securely in the CMDS. The form contains separate releases for each person the RTW coordinator may want to contact.

half of treatment enrollees did not sign the release at any point. In these cases, program staff said RTW coordinators work with enrollees to advocate for themselves.

Once enrollees sign release of information forms, RTW coordinators have reportedly encountered only minor challenges in communicating with others involved in enrollees' RTW plans. Program staff said once RTW coordinators receive a completed release form from the enrollee, they contact the employee's employer, medical provider, or workforce professional and introduce themselves. For example, the RTW coordinator might contact the medical provider for information on the enrollee's health situation that informs expectations for the enrollee's RTW. Some RTW coordinators found employers to be hesitant about the costs, effort, or legal implications involved in SAW/RTW for their enrollees. These RTW coordinators reportedly avoid using legal terms and instead emphasize how they can partner with employers and show how RETAIN benefits them. The RTW coordinators also seek permission to contact decision makers within the employer organization, such as the human resources department, and not just an enrollee's direct supervisor.

RTW coordinators value a written resource on job accommodations to support communications with employers. Staff at the lead workforce partner developed a resource, called the "Win-Win Approach to Reasonable Accommodations," before RETAIN.[26] Program staff said the resource is helpful to framing conversations when they communicate directly with an employer on behalf of an enrollee, join the enrollee and the employer on a conference call, or coach enrollees to speak with their employer.

c. Monitoring treatment enrollee progress

Program staff said features in the CMDS are helpful for tracking and assessing enrollee progress. CMDS includes checklists and helps RTW coordinators organize notes and document their contacts with enrollees. It also provides a one-page snapshot of recent, relevant information about each enrollee and sends RTW coordinators notifications to remind them of follow-up steps related to the enrollee's RTW plan.

3. Other RTW services

Designated RTW coordinators provide employment services to treatment enrollees (Exhibit IV.11). Three of the nine RTW coordinators (called senior RTW coordinators) are assigned to treatment enrollees who are unemployed or seeking a job transition.

RTW coordinators infrequently refer enrollees to OVR for services during the six-month enrollment period. They make these referrals when an enrollee needs services that cannot be paid for by RETAIN, such as a driving evaluation or power wheelchair. RTW coordinators refer enrollees to OVR at the end of the six-month intervention period if they need longer-term services.

[26] https://www.nationalmssociety.org/NationalMSSociety/media/MSNationalFiles/Brochures/Brochure-Win-Win-Approach-to-Reasonable-Accomodations-Enhancing-Productivity-on-Your-Job.pdf

Exhibit IV.11. RETAIN KY other RTW services

Program component	Description
Supporting workplace-based interventions	• RTW coordinator can refer to a part-time assistive technology specialist at the lead workforce partner who supports enrollees who experienced a loss of functioning (for example, loss of vision or use of hands). • RTW coordinator and assistive technology specialist engages with treatment enrollee's employer, consults on physical requirements of their job, reviews workplace accommodations and assistive technology, and assists with reassignment to other positions or temporarily modified duties and how to comply with the Americans with Disabilities Act.
Retraining or rehabilitating enrollees	• Senior RTW coordinators provide treatment enrollees looking for work with job development and placement assistance, workplace accommodation planning, and transferable skills analysis.
State-specific services: peer mentor support	• RTW coordinators refer all interested treatment enrollees to a peer mentor employed at the lead workforce partner. The peer mentor draws on lived experience with a disability to support treatment enrollees with the psychosocial aspects of experiencing a disability.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

a. Supporting workplace-based interventions

RTW coordinators help treatment enrollees request job accommodations using the Job Accommodation Network. Program staff said RTW coordinators offer a Job Accommodation Network referral to treatment enrollees who identify work activities that would be difficult to perform with their health conditions but have not developed a solution with their employer. Depending on the enrollee's preference, the coordinator contacts the employer, joins a conference call between the enrollee and the employer, or advises the enrollee on how to self-advocate with the employer. Program staff noted several challenges to providing this service, such as when employers believe they are already providing adequate support without RETAIN (for example, through human resources or employee assistance programs). They also noted that some enrollees prefer to advocate for themselves with their employer because they are concerned that the RTW coordinator's involvement will create unintended challenges with their employer. Service use data from RETAIN KY indicated that 21 percent of treatment enrollees received a workplace accommodation.

Exhibit IV.12. Treatment enrollees' receipt of workplace-based interventions

RETAIN KY service use and data outcomes	Percentage
Received on-site job analysis	5.0
Received ergonomic assessment	8.9
Received workplace accommodation	20.8

Source: RETAIN KY service use data through June 30, 2022.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

b. Retraining or rehabilitating enrollees

Three of the RTW coordinators served treatment enrollees facing unemployment. The coordinators provided services such as resume building and help finding a job. Service use data from RETAIN KY indicated that about 20 percent of enrollees received job search services. Enrollees also received training services (16 percent), and some participated in a transitional work opportunity (7 percent) (Exhibit IV. 13).

Exhibit IV.13. Treatment enrollees' receipt of retraining or rehabilitation services

RETAIN KY service use and data outcomes	Percentage
Received job search services	18.8
Received training services	15.8
Participated in a transitional work opportunity[a]	6.9
Received other employment services	22.8

Source: RETAIN KY service use data through June 30, 2022.

Note: Among the 101 treatment enrollees, 19 of them (18.8 percent) received more than one of the four services listed and 11 of them (10.9 percent) received only one of the four services.

[a] A transitional work opportunity is a time-limited job at a new employer during an enrollee's recovery period to meet the enrollee's work restrictions until their employer is able to provide work accommodations.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

4. Service contrast

Two RTW coordinators dedicated to serving only control enrollees provide an expedited version of RTW coordination services to control enrollees for a two-week period.[27] Expedited services consist of two meetings that include a work experience survey, development of an RTW plan, guidance on self-advocating with their employer, and referrals to other services. Treatment enrollees receive the same set of services over a longer period (six months), and the RTW coordinator communicates on the enrollee's behalf with the medical provider, employer, and others (if permitted).

The challenges of treatment enrollees not signing information release forms described above could lead to a low contrast between enhanced RTW services for treatment enrollees and expedited services for control enrollees. Specifically, RTW coordinators cannot communicate with medical providers or employers about treatment enrollees who decline to sign information release forms; instead, they provide guidance to the enrollee on advocating for themselves. In these situations, the main difference between expedited and enhanced services is the duration. However, the extent to which this issue diminishes the treatment contrast is unclear.

Beyond expedited services, control enrollees have access to other work-related services available in Kentucky to people with disabilities. Program staff described several entities that provide work-related services to people with disabilities in the state. The Kentucky Career Center provides employment services that are reportedly less individualized and less comprehensive than RETAIN. Like RETAIN KY, OVR provides individualized services to workers with injuries or illnesses unrelated to work. However, program staff said it can take months to receive services from OVR, in contrast to the early intervention

[27] Program leaders said the presence of the expedited services for control enrollees helps promote referrals to the program; it provided reassurance that any referral who enrolled could receive at least some services.

offered by RETAIN. RETAIN services include more coordination and are more comprehensive, and RTW coordinators carry smaller caseloads than OVR counselors, according to program staff. RTW coordinators provide referrals to OVR for long-term services after an enrollee's six months with RETAIN ends.

5. Collecting and reporting program data

The CMDS is working effectively to collect and report the data elements required for the evaluation. The lead workforce partner developed the CMDS for Phase 2. Program staff continue to refine the CMDS based on user feedback. The intake coordinators must enter a limited amount of duplicate information into CMDS and Confirmit (for random assignment into RETAIN); however, they have not found this overly burdensome. Program staff uniformly describe the system as user-friendly for delivering RTW services and recording information.

RETAIN KY initially was unable to provide complete unemployment insurance (UI) wage data on schedule to support the RETAIN evaluation in Phase 2. These data come from the Kentucky Education and Workforce Development Cabinet. Program staff said that due to staff turnover in the Cabinet and among RETAIN KY staff, they devoted time and effort to educating the new state Cabinet staff on the process and the need for the data. The Cabinet and RETAIN KY staff have successfully submitted one-quarter of the data and are working on a second.

F. Areas for continued monitoring and evaluation technical assistance

Our analysis of the interview data collected in April 2022 and enrollment data collected through June 2022 raised several issues that could affect the impact evaluation. The Mathematica team will continue to monitor these issues and provide evaluation technical assistance as needed.

- Early enrollment is low relative to the goal of 3,200 enrollees. As of June 30, 2022, RETAIN KY reached 6.3 percent of the target, while it reached 28 percent of the target through its 32-month enrollment period. If the program's enrollment continues at the current level, there is a high chance that the evaluation will fail to detect a true effect that is large enough to be important to policymakers.
- RETAIN KY might have enrolled some workers unlikely to benefit from RETAIN because they have already applied for or currently receive SSDI benefits. The program is designed to prevent applications for and receipt of SSDI benefits. The extent to which the program enrolls workers who have applied for or are already receiving SSDI benefits will reduce its impact on this outcome. In May 2022, DOL provided guidance that the program should no longer enroll workers who have applied for or currently receive SSDI benefits. The evaluation team will continue to monitor enrollments for this situation moving forward.
- RETAIN KY is not yet implementing provider training or RTW service coordination as planned. As of April 2022, provider training associated with continuing medical education credits was delayed but expected to be available soon. RTW service coordination was underway, but a substantial portion of treatment enrollees had not provided a release of information allowing RTW coordinators to communicate with medical providers and employers. This was preventing RTW coordinators from providing all planned coordination services to treatment enrollees and could limit the contrast between the RTW services provided to the treatment and control groups. These changes to the program model could reduce the impact of RETAIN KY.

- RETAIN KY may be enrolling more people with a longstanding primary diagnosis than expected for an early intervention program. As of June 30, 2022, treatment enrollees had an average of about five years (1,868 days) between the onset of their primary diagnosis and enrollment. We could not deduce the reason treatment enrollees had an unexpectedly high number of days between the onset of their primary diagnosis and enrollment using the data we collected so far. The evaluation team will continue to monitor enrollments for this situation moving forward.[28]

[28] In addition, RETAIN KY provided training to staff to improve the accuracy of information about the onset of enrollees' primary diagnosis.

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V. Minnesota RETAIN

Key findings

- Program partners shared a commitment to MN RETAIN that helped them overcome coordination challenges early in Phase 2. Program leaders and staff said a dedicated grant coordinator and a meeting structure that supported program-wide communication and subcommittees facilitated coordination.
- Recruitment staff at the lead health care partner, the Mayo Clinic, used a patient registry to identify potentially eligible patients; this was the primary source of referrals. They faced challenges engaging Mayo Clinic and external medical providers to make referrals.
- During the first seven months of enrollment (December 2021 through June 2022), MN RETAIN enrolled 283 workers, 9 percent of its enrollment goal, which was lower than expected. A key enrollment challenge was that eligible workers frequently did not attend their first scheduled appointment with the RTW coordinator to complete enrollment. MN RETAIN's continuous quality improvement committee focused on overcoming this challenge.
- Program leaders and staff expected program referrals and enrollment to increase as a result of their ongoing efforts to engage medical providers, employers, and diverse communities throughout the state.
- Most treatment enrollees reported a primary diagnosis of a musculoskeletal condition. Treatment enrollees had an average of 32 days between the onset of their primary diagnosis and enrollment. Many treatment enrollees were employed at the time of enrollment, with the highest proportion of treatment enrollees holding a management, professional, or related occupation.
- All treatment enrollees received MN RETAIN services beyond enrollment, and almost all received employment services. However, MN RETAIN did not report any workplace accommodations.
- RTW coordinators and the employment counselor received positive feedback from treatment enrollees about their experiences in MN RETAIN. At the time of the interviews, 23 of about 90 treatment enrollees had returned to work.
- Lack of medical provider participation in MN RETAIN training and communication with treatment enrollees' RTW coordinators might have resulted in low use of occupational medicine best practices early in a medical provider's treatment of enrollees. This could have reduced the impact of MN RETAIN.

A. Overview of Minnesota RETAIN

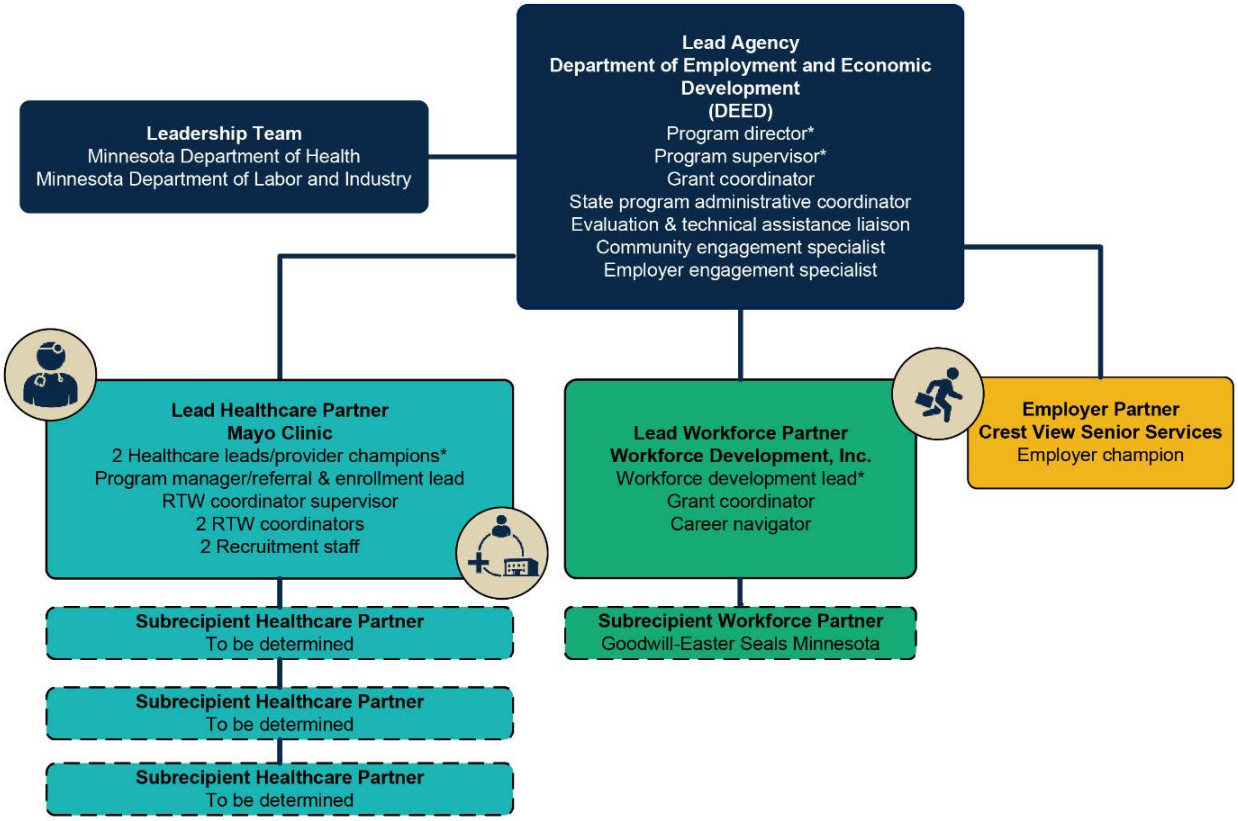
The Minnesota Department of Employment and Economic Development is the lead agency for Minnesota RETAIN (MN RETAIN). The intended population comprises employed adults ages 18 and older who have a diagnosis of an injury or illness (work- or non-work-related) that affects their employment. MN RETAIN provides RTW coordination services to all treatment enrollees and job transition services and financial support to treatment enrollees as needed through referrals from the RTW coordinators. The program catchment area is the entire state of Minnesota, including 87 counties.

This chapter presents findings about the initial implementation of MN RETAIN. It documents recruitment, enrollment, and program operations roughly seven months after enrollment began.[29]

B. MN RETAIN established partnerships to support enrollment and service delivery

As the lead agency for MN RETAIN, the Minnesota Department of Employment and Economic Development obtained signed memoranda of understanding and letters of commitment from several organizations to support MN RETAIN implementation prior to submitting its Phase 2 application (Exhibit V.1). In this section, we describe these partner organizations and their roles on MN RETAIN.

Exhibit V.1. MN RETAIN organization chart



** Serves on leadership team*

MN RETAIN = Minnesota Retaining Employment and Talent after Injury/Illness Network; RTW = return to work.

1. Lead health care partner

The lead health care partner, Mayo Clinic, is a large health system. It supports implementation by providing expertise in occupational medicine and oversight of (1) recruiting, engaging, and training medical providers; (2) recruiting, training, and managing RTW coordinators; and (3) screening,

[29] MN RETAIN enrolled the first participant on December 23, 2021. We collected qualitative data about the program implementation experiences of leaders, staff, and partners in April 2022 and quantitative data about enrollment through June 2022.

recruiting, and enrolling eligible workers. Two provider champions promote MN RETAIN across the state's medical providers by attending various meetings to share information about MN RETAIN.

Through the subrecipient contracts with medical providers, MN RETAIN aims to expand RTW coordination service delivery across the state. MN RETAIN designated funding within the overall budget to ensure it could provide subrecipients with sufficient staffing to support the program, including, recruitment staff to recruit and enroll patients and RTW coordinators to deliver RTW coordination services. Program leaders proposed two possible staffing models for subrecipients. Subrecipients will either staff these roles or contract with staff employed and trained by the lead health care partner, Mayo Clinic. If the subrecipient contracts with staff employed by the lead health care partner, the subrecipients would ideally give those staff access to their EMRs to facilitate patient recruitment and communication between RTW coordinators and enrolled patients' medical providers. Program leaders planned to work with individual subrecipients to determine the appropriate staffing model.

To recruit subrecipients, the lead health care partner sent postcards to 4,000 individual providers and 400 provider organizations throughout the state soliciting them to become a subrecipient on MN RETAIN. At the time of the interviews, MN RETAIN received applications from three medical providers to become subrecipients. These three providers include a small medical practice in the state's southeast region, a large health care provider in the central region, and a chiropractic network with about 100 practices throughout the state.

The provider champions held outreach meetings with tribal leaders and medical providers who serve Native American communities in an effort to recruit them as subrecipients. The tribal leaders and medical providers were receptive to the goals of MN RETAIN. However, due to a lack of employment opportunities in Native American communities, they perceived the program would not benefit members of those communities.

"…that's part of our strategy and the way we've looked at [promoting RETAIN] both with patients and with providers is that it's ongoing marketing or education, depending on how you look at it, a challenge you can never really let up. So you can't just, "Oh well, we'll do a webinar and that's it." It's all of the above, you know, it's a webinar, it's phone calls, it's at a conference, it's at a community event […] we have to keep getting the word out."

-Program Leader

Program leaders acknowledged that provider engagement in MN RETAIN will involve a commitment to ongoing marketing and education. Provider champions know that they are competing with other improvement initiatives seeking providers' attention. They described plans to continue to present via webinars, conferences, and community events to promote MN RETAIN among medical providers. They also are asking medical providers who had positive experiences with having patients enrolled in MN RETAIN to share their experiences with their peers; one program leader believed that this was the most effective provider recruitment method.

2. Lead workforce partner

The lead workforce partner, Workforce Development, Inc., provides job transition services and financial support to treatment enrollees through referrals from the RTW coordinators. The lead workforce partner is establishing a subrecipient partner contract with Goodwill-Easter Seals Minnesota to expand workforce development service capacity and the availability of in-person workforce development services to treatment enrollees throughout the state.

3. Employer partners

Program leaders and staff hope to grow the presence of MN RETAIN among employers across the state by recruiting a coalition of employer champions. The employer champion's role involves supporting work accommodations for injured or ill employees, making the program a visible resource for employees, providing transitional work opportunities to treatment enrollees, and promoting MN RETAIN among other employers. MN RETAIN has one employer champion who is the chief executive officer for a network of senior living communities, Crest View Senior Care. Program leaders and staff said MN RETAIN has two additional employers interested in acting as employer champions, and at the time of the interviews, they had a meeting scheduled with another large employer interested in this role.

To engage employers in MN RETAIN, the lead agency, the Minnesota Department of Employment and Economic Development, conducted a needs assessment of employers, hired an employer engagement specialist, and started tracking the industries that employ enrollees. The employer engagement specialist is drawing on his experience and contacts from his previous employer engagement role, and findings from the needs assessment to connect with employers across the state. He is also working with Minnesota's regional employer engagement specialists who have a framework for connecting with different employers throughout the state and ensuring that the state's workforce development network knows that MN RETAIN is available. Program staff noted that the employer engagement specialist brings knowledge of work accommodations, has been proactive, and has made a lot of employer contacts in the short amount of time he has worked on MN RETAIN.

Despite the comprehensive strategy, program leaders and staff described employer engagement in MN RETAIN as slow. They reported that because of the state's tight labor market, employers are prioritizing filling permanent full-time positions over accommodating treatment enrollee's work restrictions or providing transitional work opportunities to enrollees. Program leaders see this as an opportunity to promote MN RETAIN as a program that can improve employee retention. Program staff hope that in the long-term they can engage employers who have experienced the benefit of having an employee who has been helped by MN RETAIN and, through this experience, has a better understanding of work accommodations.

4. Other partners

The MN RETAIN advisory board includes two state agencies. The Minnesota Department of Health provides statewide occupational health data to support implementation, including a list of medical providers in Minnesota that program staff used for provider recruitment. The Minnesota Department of Labor and Industry provides guidance to ensure that MN RETAIN does not impede workers' compensation law.

5. Coordination of program partners

Program leaders, staff, and partners described a shared commitment to MN RETAIN that helped them overcome coordination challenges early in Phase 2. These challenges resulted from partners' different organizational missions and cultures and not having established relationships before working together to implement MN RETAIN. Program leaders and staff noted that this, along with lengthy hiring efforts for the lead agency, initially slowed implementation efforts. However, program leaders, staff, and partners expressed appreciation for the time it took to achieve a shared vision around MN RETAIN and worked to overcome coordination challenges.

Program leaders and staff described communication as being facilitated by a dedicated grant coordinator and a meeting structure that supports program-wide communication as well as focused subcommittees. These meetings include a biweekly leadership meeting with program leaders from the lead agency and the lead health care partner, a monthly meeting with all partners and staff focused on program deliverables, a monthly continuous quality improvement committee meeting, a biweekly communications committee meeting to coordinate community outreach, weekly RTW coordination meetings to discuss individual treatment enrollees' needs, and weekly data management meetings to review data-related issues.

C. The program environment surrounding MN RETAIN supports a healthy workforce

1. Employment and policy environment

In Minnesota, almost half of working-age people with disabilities were employed in 2021, higher than the national average (Exhibit V.2). According to program leaders, compared to other states, Minnesota has a relatively large amount of funding appropriated for employment and training programs seeking to engage different communities across the state. Program leaders described state leaders as being committed to supporting a healthy workforce that contributes to the state's economy, including ensuring that workers have access to training and employment services. Program staff described social needs, such as a lack of child care, transportation, and housing, as being the most common barrier to people returning to work.

Exhibit V.2. RETAIN program environment in Minnesota

Employment indicator (%)	Minnesota	United States
Unemployment rate (June 2022)[a]	1.8	3.6
Employment rate among working-age people without disabilities (2021)[b]	81.8	75.0
Employment rate among working-age people with disabilities (2021)[b]	43.0	37.0

[a] U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2022.

[b] Institute on Disability/UCED, University of New Hampshire, Annual Disability Statistics Compendium, 2021.
RETAIN = Retaining Employment and Talent After Injury/Illness Network.

2. COVID-19 pandemic

The COVID-19 vaccination rate in Minnesota is 70 percent, which is higher than the 67 percent vaccination rate nationwide.[30]

The biggest challenge MN RETAIN faced related to the COVID-19 pandemic was engaging medical providers, employers, and members of Black, Indigenous, and people of color (BIPOC) communities. Program leaders and staff noted that, in general, MN RETAIN is well-received by medical providers; however, surges in COVID variants created a strain on providers while they were already experiencing staff burnout and turnover. Therefore, medical providers believe they lack the capacity to manage work restrictions. Program leaders and staff said that employers are also dealing with turnover and are therefore prioritizing filling full-time positions rather than accommodating treatment enrollee's work restrictions or providing transitional work opportunities to enrollees. Program leaders and staff described BIPOC communities as being overwhelmed with the amount of outreach related to public programs that emerged during the pandemic. On the other hand, program staff reported that the pandemic has not negatively

[30] Johns Hopkins University Coronavirus Resource Center, 2022. Available at https://coronavirus.jhu.edu/region. Accessed April 28, 2022.

affected service delivery, and one program leader noted that the pandemic has increased awareness of the importance of work for health and well-being.

D. Program leaders and staff expect enrollment to increase as a result of their efforts to engage medical providers, employers, and diverse communities throughout the state

MN RETAIN seeks to enroll workers diagnosed with an injury or illness (work- or non-work-related). The primary source of referrals is generated from a review of a patient registry maintained by the lead health care partner, Mayo Clinic. Both the lead agency, the Minnesota Department of Employment and Economic Development, and lead health care partner are working to expand referral sources. A summary of the recruitment and enrollment process is in Appendix C (Exhibit C.2).

1. Early enrollment outcomes

During the first seven months of enrollment (December 2021 through June 2022), MN RETAIN enrolled 283 workers, 9 percent of its goal of enrolling 3,200 workers. The first seven months of enrollment represent about 24 percent of the total enrollment period. Approximately 50 percent of all enrollees were treatment enrollees, and 50 percent were control enrollees (Appendix C, Exhibit C.3).

2. Referral sources

The primary source of referrals is a report that program staff generate from a registry maintained within Mayo Clinic's EMR, referred to as the social determinants of health (SDOH) report. Patients of the Mayo Clinic must answer SDOH screening questions at least once a year. MN RETAIN dedicated resources to adding employment status to the SDOH screening questions and developing an automated algorithm that categorizes patients into low-, medium-, or high-risk classifications based on their responses to the employment status questions. Low risk indicates that the patient is working, medium risk indicates that the patient has not been working for a short period of time, and high risk indicates that the patient has not been working for a while. The recruitment staff generate the SDOH report daily and reach out to potentially eligible medium- and high-risk patients to confirm their eligibility and assess their interest in enrolling in MN RETAIN. Program leaders and staff overwhelmingly cited the addition of employment status in the SDOH screening questions to categorize patients' risk of unemployment as a facilitator in identifying potentially eligible patients.

The secondary source of referrals is an orthopedics report, which includes Mayo Clinic patients who have an upcoming orthopedics appointment. The recruitment staff review these patients' medical records to determine if they are potentially eligible for MN RETAIN and then reach out to those patients to confirm their eligibility and assess their interest in enrolling.

Program leaders reported that, at the time of the interviews, MN RETAIN had received just one patient referral from a medical provider. As the provider champions work to engage medical providers across the state, they anticipate that medical providers will become a larger referral source.

3. Outreach strategies

MN RETAIN is doing outreach to broaden referral sources to medical providers, employers, and diverse communities across the state. As discussed above, the lead health care partner is recruiting subrecipient medical providers to expand RTW coordination service delivery across the state, which should increase

referrals of eligible patients. The employer engagement specialist is also engaging employers in offering MN RETAIN as a resource to employees, which should increase worker self-referrals. In addition to these efforts, program staff work to promote MN RETAIN at community events, such as job fairs and community resource expos. Program leaders and staff described their plans for an MN RETAIN booth at the Minnesota State Fair. The fair operates for 11 days in the late summer, and they expect 100,000 people per day to pass by the booth. Program leaders and staff described their efforts to develop strategies to quickly convey information about MN RETAIN at these events. Multiple program staff (including an RTW coordinator, the employer engagement specialist, and the community engagement specialist) attend these events, which program leaders said was an effective strategy, having multidisciplinary representation to answer attendees' questions about MN RETAIN. Program staff are developing a tool to collect names and contact information during these events so they can follow up with people afterward to provide them with more information and potentially enroll them in MN RETAIN—rather than making people stand at the booth for a while to learn about MN RETAIN and confirm their eligibility. In addition, program staff are refining MN RETAIN's social media strategy to ensure that they are regularly updating information about MN RETAIN so program partners can reshare it on their social media outlets.

4. Strategies for recruiting underserved populations

The lead agency conducted a needs assessment to inform its strategies for recruiting underserved populations and hired a community engagement specialist dedicated to recruiting underserved populations. Program leaders and staff described their approach to recruiting underserved populations as being intentional to meet the goal of enrolling at least 15 percent of all enrollees from BIPOC communities. They learned from the needs assessment that different communities obtain information in different ways, such as by attending church gatherings, listening to ethnic radio, or reading community newsletters, and they are using these outlets in some communities. Program leaders reported that the community engagement specialist is making progress in establishing relationships with leaders of faith-based, immigrant, and racial and ethnic organizations and communities to gain access to these groups. Her efforts include forming a community advisory board that comprises community leaders who advise on MN RETAIN's equity goals and statewide expansion of the program. Program leaders and staff described intentionally recruiting community advisory board members who were representative of the state's population and respected leaders in their communities.

Program staff reported that MN RETAIN may not resonate with BIPOC communities because, for many people in these communities, English is their second language. MN RETAIN does not have staff who can speak the range of languages spoken in the state who can further explain the program. MN RETAIN provides translated materials and recruitment staff, and RTW coordinators have access to a telephone interpreter line. In addition, program staff reported that many people in BIPOC communities are unfamiliar with the Mayo Clinic, which is currently the only MN RETAIN provider, and may therefore be hesitant to participate.

5. Screening for eligibility

The MN RETAIN program enrolls workers diagnosed with an injury or illness (work- or non-work-related) that affects their employment. This includes worsening of pre-existing conditions or having had an invasive procedure (including surgery) within the past 12 weeks or anticipating one within eight weeks. Individuals must be employed or in the labor force, age 18 or older, and living and working in Minnesota. Workers with legal representation or an assigned Qualified Rehabilitation Consultant due to a workers' compensation medical condition are ineligible.

The lead health care partner recently added two recruitment staff whose sole responsibility is to support worker screening and recruitment. Program leaders and staff noted that adding these recruitment staff dramatically increased enrollment, mainly because the recruitment staff could devote more staff hours to identifying and screening patients. Adding the recruitment staff also took the burden from the RTW coordinators of having to review the SDOH and orthopedics reports to identify and screen patients in addition to completing enrollment and delivering RTW coordination services. The recruitment staff are responsible for reviewing the two reports and calling patients to confirm their eligibility for RETAIN and interest in enrolling. After verifying eligibility, recruitment staff schedule the eligible worker with an RTW coordinator to complete enrollment, often within 24 hours of confirming the worker's eligibility and interest in enrolling.

6. Recruitment

Program leaders and staff described the main challenge in enrolling eligible workers into MN RETAIN as getting workers to attend the appointment, during which an RTW coordinator completes their enrollment. At the time of the interviews, 62 workers who were confirmed as eligible and interested in MN RETAIN did not attend the appointment with the RTW coordinator to complete enrollment.

The continuous quality improvement committee is focused on overcoming these enrollment challenges and considering various strategies to increase enrollment. These strategies include sending automated letters through the patient portal or mail to patients who meet the screening criteria before recruitment staff will reach out to them to confirm eligibility and assess their interest in enrolling. Program staff hope that if potentially eligible patients have received information about MN RETAIN before they receive a call from recruitment staff, they will be more likely to understand the program and complete enrollment. The letters will be translated into several languages.

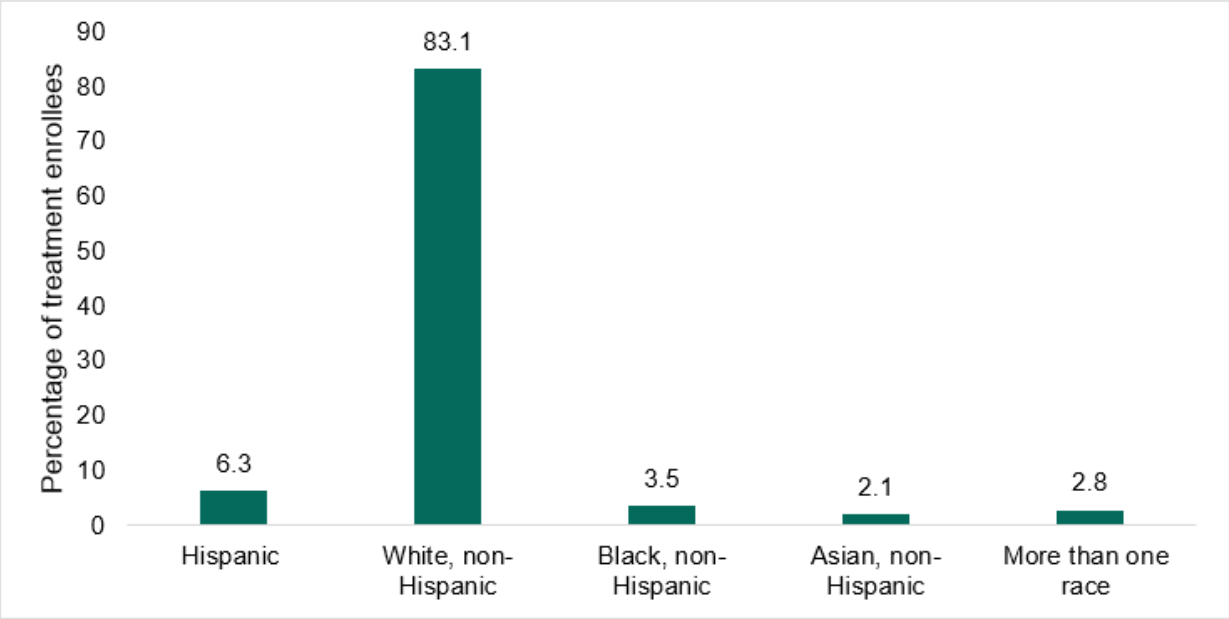
MN RETAIN started using an online form to collect information from eligible workers while completing enrollment.[31] RTW coordinators previously used a PDF file that they entered information into and then sent to the eligible worker via email for electronic signature during the enrollment call. According to program staff, this change has significantly sped up the enrollment and consent process.

7. Treatment enrollee characteristics

We used enrollment data submitted by MN RETAIN to assess demographic characteristics for the 142 individuals who enrolled during the first seven months of the enrollment period (December 2021 through June 2022) and were assigned to the treatment group (Appendix C, Exhibit C.4). Many treatment enrollees were female (57 percent). The average age of the treatment enrollees was 44, with 37 percent being age 50 or older. Most were White, non-Hispanic (83 percent), followed by Hispanic ethnicity of any race (6 percent). The remainder of enrollees were similarly distributed across the remaining race and ethnic groups (Exhibit V.3). Almost all of the treatment enrollees had at least a high school diploma, GED, or certificate of completion (97 percent) and preferred English (97 percent).

[31] The form accessible online is supported by REDCap an online platform developed specifically to support data collection for research.

Exhibit V.3. Race and ethnic characteristics of treatment enrollees (percentage)



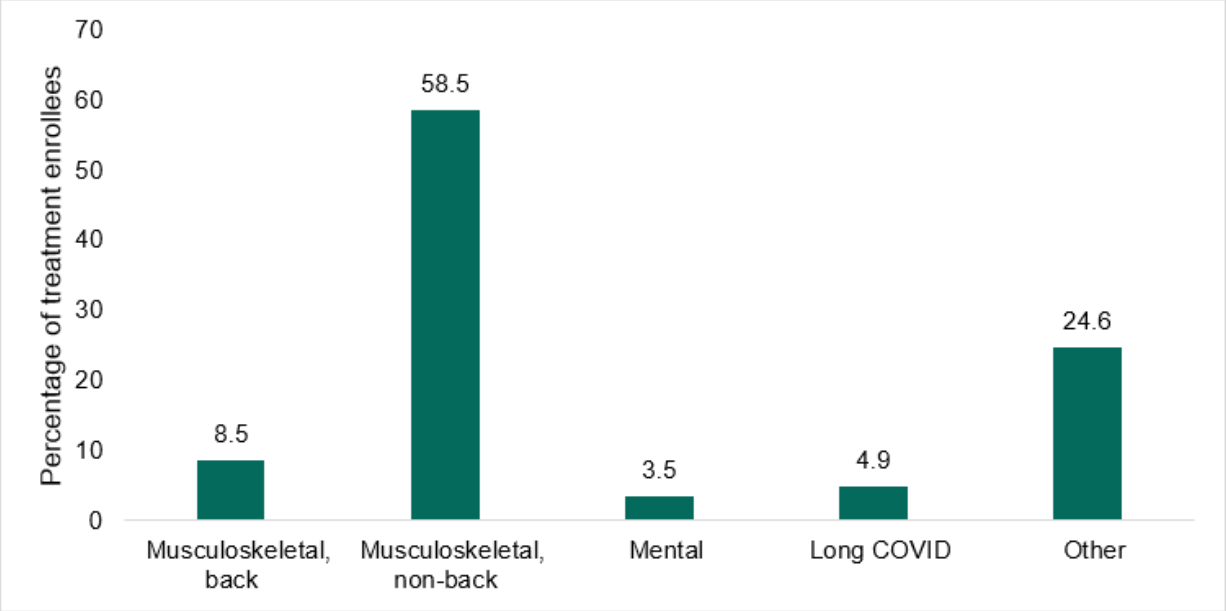
Source: MN RETAIN enrollment data through June 30, 2022.

Note: Suppressed "Other, non-Hispanic" to avoid disclosing information about particular individuals. Therefore, percentages do not add to 100 percent.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

We also used the enrollment data submitted by MN RETAIN to assess illness and injury characteristics for the same 142 treatment enrollees (Appendix C, Exhibit C.5). Most treatment enrollees reported a primary diagnosis of a musculoskeletal condition, with 59 percent reporting a non-back musculoskeletal condition and 9 percent reporting a musculoskeletal back condition (Exhibit V.4). MN RETAIN enrolls people with work- and non-work-related conditions, and 13 percent of enrollees reported their injury or illness was work-related. Although people with a worsening of an existing condition are eligible, most treatment enrollees reported their illness or injury was a new condition at the time of enrollment (61 percent). Less than half reported their condition was a result of an accident or injury (43 percent). Treatment enrollees had an average of 32 days between the onset of their primary diagnosis (either a new condition or a worsening of a chronic condition) and their enrollment in MN RETAIN.

Exhibit V.4. Primary diagnosis characteristics of treatment enrollees (percentage)



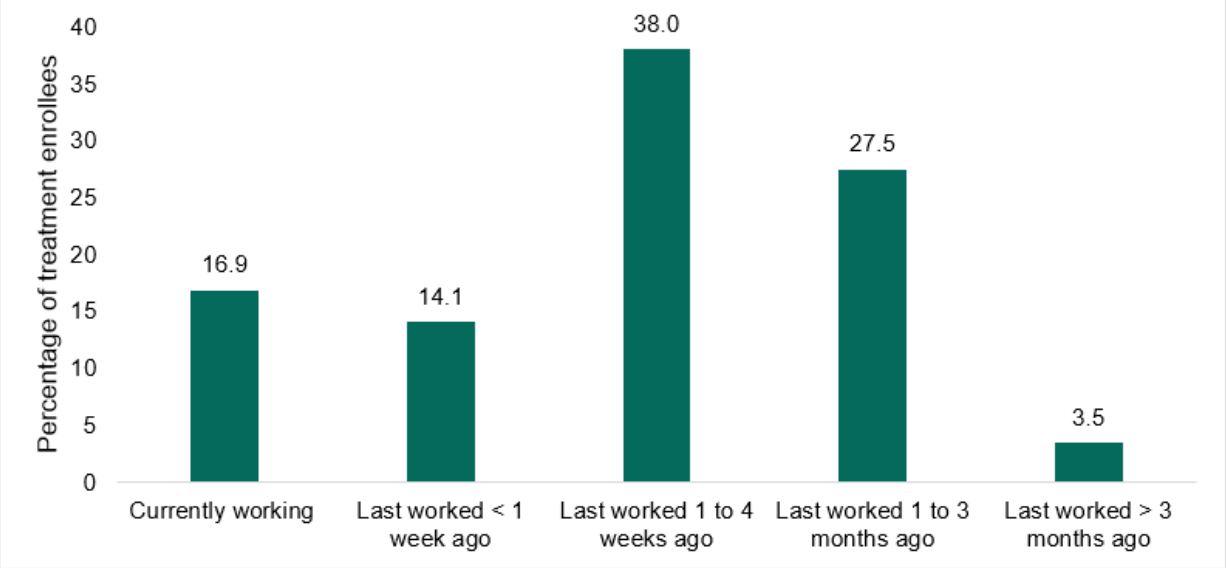
Source: MN RETAIN enrollment data through June 30, 2022.

Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental; and Other. These groupings build on previous studies of return to work among injured or ill workers. We include the mapping of ICD-10 codes into these categories in Appendix C, Exhibit 5.

ICD = International Classification of Diseases; MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data submitted by MN RETAIN to assess recent work histories for the same 142 treatment enrollees described above (Appendix C, Exhibit C.6). All RETAIN programs must enroll workers who are employed or in the labor force, and, for MN RETAIN, many treatment enrollees were employed at the time of enrollment (92 percent). Many treatment enrollees last worked within one month of enrollment (69 percent), and almost all last worked within three months of enrollment (97 percent) (Exhibit V.5). On average, treatment enrollees were employed full time (41 hours per week) before onset of injury or illness. Over a quarter of enrollees (27 percent) worked at their current or most recent job for less than a year, 30 percent worked at this job between one to five years and the remainder (43 percent) held this job for over five years. In the year prior to enrollment, most treatment enrollees (90 percent) worked at a job that paid at least $1000 per month. The highest proportion of treatment enrollees held a management, professional, or related occupation (42 percent) (Exhibit V.6). Other treatment enrollees held occupations in service (28 percent), production, transportation, or material moving (15 percent), natural resources, construction, or maintenance (11 percent), or sales and office (5 percent).

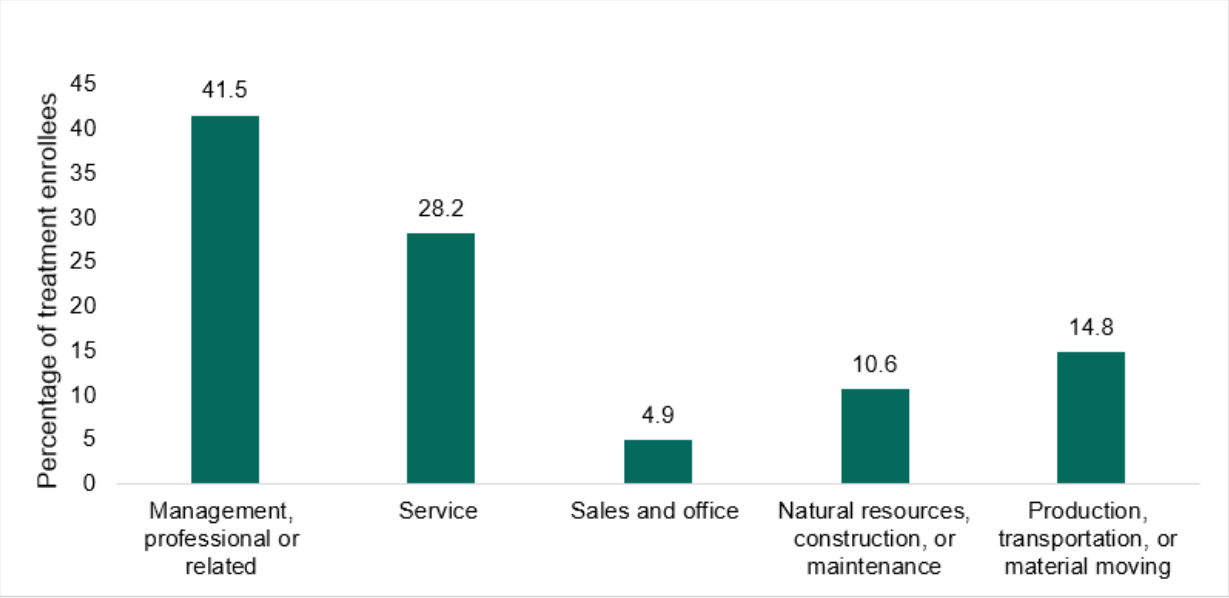
Exhibit V.5. Length of time since last worked before enrollment for treatment enrollees (percentage)



Source: MN RETAIN enrollment data through June 30, 2022.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

Exhibit V.6. Occupational classification of pre-injury/illness job for treatment enrollees (percentage)



Source: MN RETAIN enrollment data through June 30, 2022.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to compare treatment enrollee characteristics to control enrollee characteristics. As outlined in the Evaluation Design Report, we expected treatment and control enrollees to have similar baseline characteristics, because each state has a random assignment design (Berk et al. 2021). We found no significant differences between treatment and control enrollees in the characteristics examined (Appendix C, Exhibit C.4, Exhibit C.5, and Exhibit C.6).

E. MN RETAIN's early service delivery is going as planned except that no medical providers have taken the training

At the time of the interviews in May 2022, program staff were delivering RTW coordination services and other RTW services as planned in the MN RETAIN program model. But no medical providers had completed the medical provider training. There was a contrast between treatment and control services.

1. Medical provider services

MN RETAIN is advertising the medical provider training to providers affiliated with the lead health care partner, Mayo Clinic, and external medical providers (Exhibit V.7). Program staff sent two rounds of emails to Mayo Clinic providers and postcards to external medical providers advertising MN RETAIN and the opportunity to obtain CME credits by attending a webinar about occupational medicine best practices. Program staff also alert Mayo Clinic medical providers about the training if one of their patients enrolls in the treatment group.

The lead health care partner created the MN RETAIN training modules. The modules focus on establishing a vision for providers to incorporate occupational medicine best practices early in their treatment of a patient who has an injury or illness that may impede the patient's ability to stay at or return to work. Examples of these best practices include understanding what patients do at work and not assuming that because patients say they cannot do their job, they cannot be accommodated.

Exhibit V.7. MN RETAIN medical provider services

Program component	Description
Training medical providers	• Program staff alert providers to take the MN RETAIN training when one of their patients enrolls in the treatment group. • Providers can access online, on-demand, brief, educational modules. The educational modules focus on (1) including work as part of a patient's physical and mental health; (2) using evidence-based work restrictions; (3) communicating among employers, patients, and health care providers; and (4) avoiding unnecessary or prolonged use of opioids in pain management. • RTW coordinators offer providers just-in-time education on evidence-based work restrictions. • Providers can access consultations from RTW coordinators and occupational medicine providers for writing effective work restrictions.
Incentivizing medical providers	• Program staff offer providers a $100 gift card for completing the education modules within 30 days of one of their patients enrolling and being assigned to the treatment group. This incentive is offered to a provider for every patient enrolled and assigned to the treatment group. • Providers can receive continuing medical education credits for completing the education modules.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Program leaders reported that engaging medical providers in the training was going slower than planned. At the time of the interviews, no medical providers had completed the training. Program leaders noted that in addition to challenges related to the pandemic, providers receive many emails asking them to participate in surveys and many junk emails. They continue to identify strategies to draw providers' attention to the training, including recruiting additional provider champions to use peer pressure to engage their colleagues. In the meantime, program staff described how the RTW coordinators can deliver the RTW coordination services to treatment enrollees to support their return to work without the providers' involvement.

2. RTW coordination services

Two RTW coordinators and one RTW coordinator lead provide RTW coordination services to treatment enrollees (Exhibit V.8). The RTW coordinator lead is temporarily providing services due to one RTW coordinator's departure. The RTW coordination services include developing an employment plan and an RTW plan; meeting regularly with the treatment enrollee; and communicating with the enrollee's medical provider, employer, and others as needed to coordinate the employee's SAW/RTW. RTW coordinators work with each treatment enrollee until they return to work without restrictions, return to work with permanent restrictions, or participate in the program for six months. RTW coordinators do not work with a treatment enrollee for more than six months.

Exhibit V.8. MN RETAIN RTW coordination services

Program component	Description
Coordinating RTW services	• RTW coordinators engage with treatment enrollees to develop an individualized employment plan and an individualized RTW or SAW plan. • RTW coordinators and treatment enrollees must communicate at least twice a month. • RTW coordinators provide guidance to treatment enrollees regarding appropriate medical care and work restrictions. • RTW coordinators provide support to medical providers on recommendations for appropriate treatment and work restrictions. • RTW coordinators document work restrictions in the Occupational Case Management software platform.
Communicating among parties involved in RTW plan	• RTW coordinators use standardized procedures to communicate with treatment enrollees, their medical provider, and their employer to optimize the provision of work accommodations. • RTW coordinators document employment-specific interactions in the Occupational Case Management software platform.
Monitoring treatment enrollee progress	• RTW coordinators monitor treatment enrollees' progress through weekly or biweekly contacts and for one month after enrollees return to work.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; SAW = stay at work.

a. Coordinating RTW services

RTW coordinators first interact with a treatment enrollee when they are completing their enrollment into MN RETAIN, after which they interact weekly or biweekly until the enrollee completes the program. During the first interaction, the RTW coordinator and enrollee work together to develop an employment

plan to document the enrollee's background, their goals for employment, and if they need workforce development services. Then they work together to develop an RTW plan to document the enrollee's employer information and work restrictions and accommodations.

Program data submitted by MN RETAIN indicate that all treatment enrollees received MN RETAIN services, including RTW coordination services or other RTW services (Exhibit V.9). Almost all treatment enrollees (99 percent) had an established RTW plan. MN RETAIN expects RTW coordinators to engage with treatment enrollees to develop a RTW plan during the initial enrollment call. This engagement is observed from the average number of days (0.2) that elapsed from enrollment to establishment of an RTW plan for treatment enrollees. As of end of June, about 36 percent of treatment enrollees exited MN RETAIN. Treatment enrollees who have exited received services for about 121 days (about four months).

Exhibit V.9. Treatment enrollees' receipt of RTW coordination services

Service received	Percentage of treatment enrollees
Received any services beyond enrollment[a]	100.0
Established RTW plan	98.6
Time elapsed between enrollment and established RTW plan (days)	0.2
Exited MN RETAIN	35.9
Duration of services (if exited) (days)	120.9
Referred to services beyond MN RETAIN after six months	0.0

Source: MN RETAIN service use data through June 30, 2022.

[a] Any services beyond enrollment includes establishing an RTW plan or receiving an employment service such as job search assistance, training, on-site job analysis, ergonomic assessment, or transitional work opportunities.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Program staff noted that RTW coordinators face challenges keeping in touch with some treatment enrollees while they are enrolled in the program. RTW coordinators encourage enrollees to keep in touch, confirm the next appointment whenever they interact with an enrollee, and accommodate the enrollee's preferred mode of communication. At the time of the interviews, they did not have many enrollees who were lost to follow-up.

Program leaders and staff described the RTW coordinators as having diverse backgrounds and working closely with each other to facilitate service delivery. One RTW coordinator is a registered nurse, one has a background as an employment counselor in workforce development, and one recently hired RTW coordinator is a social worker. Program leaders said they are intentional about hiring staff with diverse professional backgrounds to offer more services to treatment enrollees. The RTW coordinators meet daily to discuss cases and brainstorm solutions to challenges, and they communicate throughout the day using instant messaging to provide one another with support as needed.

Program leaders and staff described the positive feedback RTW coordinators received from treatment enrollees about their experiences in MN RETAIN. Enrollees expressed appreciation for the RTW coordinators helping them navigate their medical care, preparing them to have conversations with their employer about their needs and plans for returning to work, and being supportive so the enrollee can concentrate on their health. At the time of the interviews, 23 of about 90 treatment enrollees had returned to work.

b. Communicating among parties involved in enrollee return to work

Exhibit V.10 lists the possible avenues of communication among RTW coordinators and others involved in enrollees' RTW plans (namely, the employer and medical provider) and the percentage of reported communications that occurred with each as reported in the program data submitted by MN RETAIN.

Exhibit V.10. Percentage of treatment enrollees whose RTW coordinator communicated with others involved in their RTW

Communication among parties involved in treatment enrollees' return to work	Percentage of treatment enrollees
Treatment enrollee's RTW coordinator communicated with employer at least once	62.0
Treatment enrollee's RTW coordinator communicated with medical provider at least once	9.9
Treatment enrollee's RTW coordinator communicated with workforce professional at least once	57.0

Source: MN RETAIN service use data through June 30, 2022.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Despite the high percentage of treatment enrollees whose RTW coordinator communicated with their employer at least once (62 percent) (Exhibit V.10), program staff noted that they face challenges engaging treatment enrollees' employers. Most enrollees give RTW coordinators permission to communicate with their employers.[32] Yet program staff noted that when an RTW coordinator calls employers to let them know their employee is enrolled in MN RETAIN, most employers express a preference for communicating directly with their employee rather than through the RTW coordinator. Nonetheless, a few employers engaged with the RTW coordinator to support their employee's return to work.

Program staff reported that RTW coordinators were not communicating with medical providers. This can be observed in MN RETAIN's service use data: only 10 percent of treatment enrollees' RTW coordinators communicated with a medical provider (Exhibit V.10). When a Mayo Clinic provider has a patient enrolled in the treatment group, they receive an automated email explaining MN RETAIN. Program staff described this as the primary communication with medical providers about MN RETAIN. Some providers complained about the emails because they amounted to additional paperwork, so program staff are trying to identify a more efficient way to contact the provider about their patient being enrolled in MN RETAIN. RTW coordinators have full access to treatment enrollees' medical records if the enrollee is a patient at Mayo Clinic, so they can review their clinical notes and communications between the provider and the patient. The RTW coordinators do not, however, document case notes in the EMR, which is accessible by the providers, because of the Cures Act effective in July 2022. The Cures Act will require any information documented in the EMR to be made available to the patient. Program staff noted that not all the information documented in case notes should be available to the patient, so the RTW coordinators are not documenting as much in the EMR as they planned.

[32] Program staff noted that the treatment enrollees who do not give permission to the RTW coordinator to contact their employer had employment situations where such contact might create confusion for the employer (for example, the enrollee did not have an established relationship with their employer).

c. Monitoring treatment enrollee progress

RTW coordinators monitor treatment enrollees' progress by maintaining close contact with most treatment enrollees during the weekly or biweekly contacts. Program staff noted that the close contact enables RTW coordinators to track enrollees' work restrictions, communications with their medical providers, and other needs to support their RTW plans.

RTW coordinators determine when a treatment enrollee can return to work on a case-by-case basis. After the enrollee's medical provider has cleared them to go back to work, the RTW coordinator will discuss with the enrollee if they feel safe returning to work. If the medical provider documented work restrictions, the RTW coordinator ensures that the employer can make the appropriate work accommodations. Once the enrollee has returned to work without restrictions, the RTW coordinator will continue the weekly or biweekly contact with the enrollee for one month to ensure they have a successful return to work and do not need additional work restrictions.

> *"[Returning to work] varies on each individual person, dependent on what's going on. For some that are dealing with mental health, it's a little bit different, from those that have had to have the surgery. Usually, those are a little more black and white…"*
>
> -Program Staff

1. Other RTW services

RTW coordinators reach out to employers to support workplace-based interventions, and the lead workforce partner provides workforce development services or financial support to treatment enrollees (Exhibit V.11).

Exhibit V.11. MN RETAIN other RTW services

Program component	Description
Supporting workplace-based interventions	• RTW coordinators assist employers with developing work accommodations when treatment enrollees have restrictions.
Retraining or rehabilitating enrollees	• RTW coordinators refer treatment enrollees to the lead workforce partner, Workforce Development, Inc., to be connected to alternative employment, transitional work opportunities, training services, and financial support if their employer is not able to provide work accommodations. • Treatment enrollees may work in transitional work opportunities that meet their work restrictions until their employer is able to provide work accommodations. • An employment counselor works with treatment enrollees to identify their goals and barriers to achieving those goals and develop an individual service strategy. • The employment counselor must communicate with treatment enrollees at least once a month (and more frequently as needed). • RTW coordinators regularly engage with the employment counselor assigned to a treatment enrollee to connect the enrollee with retraining or identify transitional work opportunities. • RTW coordinators do not make referrals to rehabilitation services.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

a. Supporting workplace-based interventions

RTW coordinators can support workplace-based interventions through their involvement in developing workplace accommodations. Program leaders and staff are considering how to give feedback to medical providers to improve their documentation of work restrictions. Program leaders noted that medical providers are usually prompted to document work restrictions based on a patient's request. They also noted that too frequently the work restrictions state that a patient is unable to work until they are completely recovered. RTW coordinators can offer medical providers suggestions for translating activities of daily living into work restrictions. For example, the RTW coordinator can learn from treatment enrollees whether they can go to the grocery store and lift a gallon of milk, which is 10 pounds. With such information, the RTW coordinator can suggest that the medical provider revise the work restrictions to allow an enrollee to return to work and not lift more than 10 pounds.

MN RETAIN did not report any workplace accommodations (Exhibit V.12), but program leaders and staff noted that RTW coordinators may be well positioned to support employers with work accommodations. When employers do not support work accommodations, the RTW coordinators can try to discuss potential work accommodations with them, such as flexible shifts or equipment that supports the employee in completing work tasks.

Exhibit V.12. Treatment enrollees' receipt of workplace-based interventions

MN RETAIN service use and data outcomes	Percentage of treatment enrollees
Received on-site job analysis	0.0
Received ergonomic assessment	0.0
Received workplace accommodation	0.0

Source: MN RETAIN service use data through June 30, 2022.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

c. Retraining or rehabilitating enrollees

Almost all treatment enrollees received employment services (Exhibit V.13). Based on the observation that almost all treatment enrollees received employment services, RTW coordinators are likely providing career counseling in addition to referring treatment enrollees to the lead workforce partner, Workforce Development, Inc. The RTW coordinators make such a referral if they identify that the enrollee has a need for workforce development services or financial support. The employment counselor, employed by the lead workforce partner, helps treatment enrollees with a range of employment services, including resume review and training if the enrollee is looking to transition to a different job, financial support (such as help paying for rent or utilities) if the enrollee is unemployed during recovery, and access to paid transitional work opportunities that align with the enrollee's work accommodations.

Exhibit V.13. Treatment enrollees' receipt of retraining or rehabilitation services

MN RETAIN service use and data outcomes	Percentage of treatment enrollees
Received job search services	2.8
Received training services	0.0
Participated in a transitional work opportunity[a]	0.0
Received other employment services	99.3

Source: MN RETAIN service use data, through June 30, 2022.

[a] Transitional work opportunity is a time-limited job at a new employer during an enrollee's recovery period to meet the enrollee's work restrictions until their employer is able to provide work accommodations.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

The employment counselor and RTW coordinators focus on individual treatment enrollee's needs and work closely to coordinate service delivery to meet those needs. They meet weekly to coordinate services for individual enrollees and share information they obtain from enrollees to ensure they have a comprehensive understanding of their cases. They maintain a spreadsheet to track the progress of treatment enrollees referred for workforce development services. One of the RTW coordinators was previously an employment counselor, and the program staff noted that it was helpful to have the counselor's firsthand experience with workforce development services on the RTW coordinator team.

Program staff indicated that treatment enrollees are typically unaware that the services provided by the lead workforce partner are available. When they receive the services, they often express appreciation for the help in finding other job options when they cannot return to their previous job. Treatment enrollees also are grateful for the financial support when they have lost their income and cannot pay for necessities (such as rent or utilities), because this reduces the stress of having to go back to work before they feel fully healed.

> *"[Treatment enrollees] are just in awe. I think sometimes people don't believe that we have all these additional resources and so they're always super appreciative of all the support. …they're worried "I have this injury, I have something going on with me and I know I'm not going to be able to go back to work," and we have that additional support, we can find them something different. We can help pay for … their schooling … and the financial support has been huge for people that don't have a lot of income and they can't pay for food or need some help with some payments and stuff just to know that that's there to help support them has really been just so appreciated."*
>
> -Program Staff

Program staff noted challenges in finding paid transitional work opportunities for treatment enrollees. They said that it is difficult for the workforce development partner to find an employer willing to employ a treatment enrollee in an accommodated role (for example, sitting down for most of a shift). Even with many companies facing staffing shortages in the state's tight labor market, they do not engage in supporting treatment enrollees' work accommodations and would prefer to fill permanent positions.

2. Service contrast

Control enrollees receive standard care, which might include services available through their employer or workforce development agencies. After completing enrollment, RTW coordinators explain to control enrollees that they will not have further contact with MN RETAIN. RTW coordinators provide the control enrollees with a list of resources, including the Dislocated Worker Program, American Job Centers, CareerOne, and other resources that are available to the general public through workforce development

agencies and employers. The RTW coordinator tells control enrollees that they can access these resources independently.

In Minnesota, coordination between medical providers, employers, and workforce development services to support staying at or returning to work is not routinely provided to individuals with an injury or illness unrelated to their employment. Further, medical providers in Minnesota do not have a defined process for monitoring patients' RTW progress.

3. Collecting and reporting enrollment data

MN RETAIN uses a management information system, Workforce One (WF1), maintained by the lead agency, which uses it for other state programs. The lead agency built an MN RETAIN module within the WF1 system.

One challenge program staff noted about using WF1 is that it was developed to support state programs and cannot be used to record Protected Health Information, so they must enter data and track information in multiple locations. Program staff described how RTW coordinators need first to enter enrollment data into the REDCap online platform when completing the enrollment application. Then, they enter the enrollment data into Confirmit to randomize the enrollee into the treatment or control group. Once the enrollee is confirmed to be in the treatment group, the RTW coordinator enters the enrollee's data into WF1. Program staff had mixed perceptions on whether having to enter enrollment data in multiple places was a challenge. All agreed that the change from using PDFs to using REDCap significantly reduced the time it takes RTW coordinators to collect enrollment data.

Program leaders noted that evaluation data submission is going smoothly. By creating the MN RETAIN module in WF1 in Phase 2, program staff are able to write a script to automatically pull together data for reports rather than manually collating the data as they did in Phase 1. The RTW coordinators, workforce staff, and data analysts meet weekly to review data errors requiring correction in WF1. Program staff noted that the technical assistance provided by Mathematica and the Office of Disability Employment Policy has been particularly helpful in resolving data reporting issues. Program staff found workarounds to access data needed for the reports, such as the UI wage data, which is currently under legislative lockdown.

F. Areas for continued monitoring and evaluation technical assistance

Our analysis of the interview data collected in May 2022 and enrollment data collected through June 2022 raised issues that could affect the impact evaluation. The Mathematica team will continue to monitor these issues and provide evaluation technical assistance as needed.

- Early enrollment is low relative to the goal of 3,200 enrollees. As of June 30, 2022, which is 24 percent through its enrollment period, MN RETAIN reached 9 percent of the target enrollment. In the early months of Phase 2, MN RETAIN invested time and resources in recruiting additional medical providers to recruit patients and community outreach to recruit workers across the state. MN RETAIN also devoted two additional recruitment staff to identifying and recruiting enrollees. Program leaders and staff expect these efforts to increase enrollment. However, if enrollment continues at the current pace, it is likely that the evaluation will fail to detect a true effect that is large enough to be important to policymakers.

- As of the virtual site visit, conducted in May 2022, no medical providers had taken the MN RETAIN medical provider training. In addition, program leaders and staff noted that medical provider engagement in documenting practical work restrictions for treatment enrollees and MN RETAIN in general was low. The lack of medical provider engagement in MN RETAIN training may result in low use of occupational medicine best practices early in a medical provider's treatment of a patient who has an injury or illness that may be a barrier to their staying at work or returning to work. The lack of provider engagement in documenting practical work restrictions could delay enrollees' returning to work for longer than necessary if the RTW coordinator does not intervene and suggest to the provider how the work restrictions could be revised for an enrollee's earlier return to work. Both the medical providers' lack of engagement in medical provider training and documenting practical work restrictions could reduce the impact of MN RETAIN.

VI. Ohio RETAIN

Key findings

- Program leaders and staff described a focus on continuous quality improvement. They monitored worker, provider, and employer recruitment data and collaborated to identify areas for improvement, implement changes, and reassess goals.
- OH RETAIN focused on implementing the program within Mercy Health, its only health care partner at the time. The Mercy Health EMR facilitated many aspects of implementation, including identifying, screening, and recruiting Mercy Health patients; streamlining data management; and supporting care team communication.
- During the first six months of enrollment (January through June 2022), OH RETAIN enrolled 613 workers, 18 percent of its enrollment goal. OH RETAIN was on track to meet its enrollment goal of 3,500 enrollees.
- Most treatment enrollees reported a primary diagnosis of a musculoskeletal condition. Treatment enrollees had an average of 30 days between the onset of their primary diagnosis and enrollment. Many treatment enrollees were employed at the time of enrollment, with the highest proportion of treatment enrollees holding a service occupation.
- Many treatment enrollees received OH RETAIN services beyond enrollment; however, OH RETAIN did not report employment services for any treatment enrollees. Many treatment enrollees established an RTW plan, and about 15 percent received a workplace accommodation.
- For workers to be eligible for OH RETAIN enrollment, their medical providers must have enrolled in OH RETAIN, meaning these providers agreed to participate in the program and received OH RETAIN training.
- Workers had to allow RTW coordinators to communicate with their medical providers and employers to enroll in OH RETAIN. All treatment enrollees' RTW coordinators communicated with their medical providers at least once, and about two-thirds of treatment enrollees' RTW coordinators communicated with their employers at least once.
- OH RETAIN experienced low treatment enrollee engagement with workforce services, such as retraining and rehabilitation. Although treatment enrollees were willing to receive referrals to these services, when workforce partners contacted them, they often indicated they were not ready to participate in these services. Program partners suggested enrollees' readiness for workforce services might take more time than the OH RETAIN service delivery period allowed.

A. Overview of Ohio RETAIN

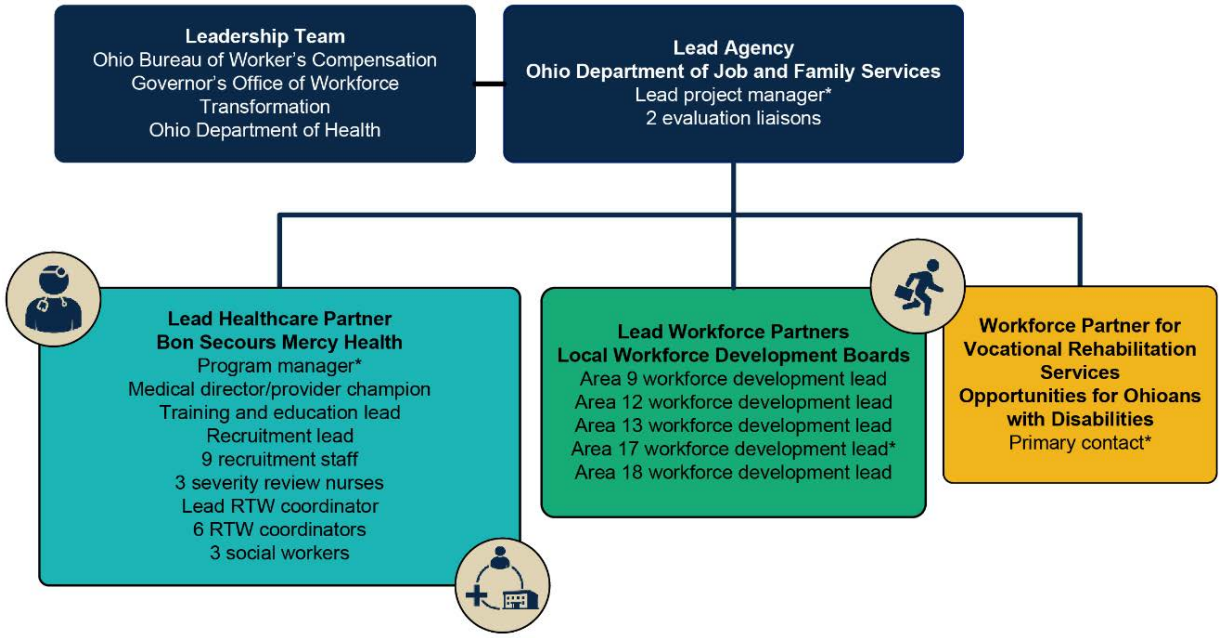
The Ohio Department of Job and Family Services (ODJFS) is the lead agency for Ohio (OH) RETAIN. The intended population comprises employed adults ages 18 to 65 who have experienced the onset or worsening of a non-work-related musculoskeletal or cardiovascular injury or illness in the past three months. OH RETAIN provides RTW coordination services to all treatment enrollees and social work and career services as needed through referrals from RTW coordinators. The program catchment area is three regions in OH: Youngstown, Toledo, and Cincinnati.

This chapter documents recruitment, enrollment, and program operations roughly six months after enrollment began and presents findings about the initial implementation of OH RETAIN.[33]

B. OH RETAIN established partnerships to support enrollment and service delivery

The lead agency, ODJFS, brings together a range of partners to support implementation (Exhibit VI.1). The lead agency established a memorandum of understanding with all program partners before submitting its Phase 2 application (Appendix D, Exhibit D.1). In this section, we describe these partner organizations and their roles supporting OH RETAIN.

Exhibit VI.1. OH RETAIN organization chart



** Serves on leadership team*

OH = Ohio; RETAIN = Retaining Employment and Talent after Injury/Illness Network; RTW = return to work.

1. Lead health care partner

The lead health care partner, Mercy Health, is the sole health system implementing OH RETAIN. The lead health care partner supports implementation by identifying and recruiting eligible patients, recruiting and training medical providers, and delivering RTW coordination services. The lead health care partner also conducts employer outreach in coordination with the lead workforce partners. The lead health care partner draws on its EMR to facilitate identifying, screening, and recruiting patients; streamlining data management; and supporting care team communication. To enhance internal program processes, lead health care partner staff direct continuous quality improvement efforts.

[33] OH RETAIN enrolled the first worker on January 19, 2022. We collected qualitative data about implementation experiences during semi-structured site visit interviews four months after the start of enrollment. We collected program data through six months after the start of enrollment (June 2022).

Recruitment staff conduct outreach to medical providers employed by the lead health care partner to recruit them to participate in OH RETAIN. Outreach efforts focus on providers with the most potentially eligible patients identified in EMR reports; program staff noted that these providers tend to be specialists rather than primary care providers. Recruitment staff educate providers about the benefits of OH RETAIN in practice-wide lunch-and-learn meetings or individual meetings. Several provider champions participate with program leaders and staff on an OH RETAIN advisory board that meets quarterly. The role of the provider champions is to advise program staff on provider outreach strategies (for instance, helping identify providers to engage for recruitment), to encourage their peers to participate in OH RETAIN, and to provide feedback on how using SAW/RTW best practices with patients and documenting in the EMR are going for OH RETAIN providers. Providers must complete online trainings to participate in OH RETAIN. Once providers complete these trainings, staff enroll these providers in the program, and they can refer their patients to OH RETAIN.

Program staff described how medical providers' limited time poses challenges to engaging them in OH RETAIN. They noted that it can be challenging to find time to meet with medical providers, but it helps to coordinate with office managers to present at existing practice-wide meetings and have providers sign up to enroll in OH RETAIN during these meetings rather than asking them to sign up afterward. Program staff noted that some providers express initial concerns that OH RETAIN participation will require additional time and changes to their workflows. To assuage these concerns, program staff emphasize that medical provider participation requires minimal time and fits with existing clinical and EMR documentation workflows. Staff also find that providers are sometimes more receptive when staff have already identified their patients who are eligible. Program leaders noted that peer outreach by provider champions has been effective; they plan to identify additional champions and expand upon this provider peer–outreach approach going forward.

To make employers aware of OH RETAIN services and engage them in the program, the lead health care partner's recruitment staff work with the lead workforce partners to conduct employer outreach through individual employer meetings and networking events, focusing on employers located in low-income opportunity zones. Staff invite employers to sign an Inclusive Employer pledge as part of enrollment in OH RETAIN. Program leaders have started meeting with state legislators and the lead health care partner's government relations team to engage employers in their networks. Recruitment staff also reach out to employers whose employees have been assigned to the treatment group to encourage them to enroll as OH RETAIN employers and sign the pledge. Staff noted that it can help with worker recruitment when a worker's employer has already enrolled in OH RETAIN and signed the pledge indicating their support. One employer outreach challenge is that employers have limited capacity to meet with program staff, especially in the current employment environment where many employers are understaffed.

2. Lead workforce partners

The lead workforce partners, the Local Workforce Development Boards, conduct employer outreach in coordination with the lead health care partner in Ohio's Local Workforce Areas 9, 12, 13, 17, and 18.[34] The lead workforce partners use their employer engagement experience and market OH RETAIN as one retention strategy in a menu of services for employers. The lead workforce partners also provide career and retraining services to treatment enrollees through their OhioMeansJobs centers.

[34] OH's Local Workforce Area 9 encompasses the Toledo region, Areas 12 and 13 encompass the Cincinnati region, and Areas 17 and 18 encompass the Youngstown region.

The workforce partner for VR services, Opportunities for Ohioans with Disabilities, works closely with the OhioMeansJobs centers and provides VR services to referred treatment enrollees. The workforce partner for VR services also consults with employers on work accommodations for treatment enrollees as needed.

3. Other partners

The state leadership team includes partners who consult with OH RETAIN on program implementation. The Ohio Bureau of Worker's Compensation serves in an advisory role.[35] The Governor's Office of Workforce Transformation oversees the state agency partners involved in OH RETAIN. The Ohio Department of Health provides Institutional Review Board oversight.

4. Coordination of program partners

Program leaders and staff were overwhelmingly positive about partner coordination. OH RETAIN benefits from the lead agency and workforce partners having longstanding relationships. Program partners expressed that establishing a memorandum of understanding between partners, having open lines of communication, establishing clear workflows (such as intra-agency referral processes), and drawing on partners' areas of expertise have facilitated coordination efforts. The leadership team meets quarterly to discuss implementation progress and areas of focus for the next quarter.

C. Program environment surrounding OH RETAIN

1. Employment and policy environment

In Ohio, about 37 percent of working-age people with disabilities were employed in 2020, a rate slightly lower than the national average (Exhibit VI.2). Program leaders and partners noted that Ohio has a diverse economy and that manufacturing, health care, education, and retail are among the main industries that employ OH RETAIN enrollees. Although there are numerous job openings in Ohio currently, many jobs are physically demanding, and employers often do not have less physically demanding jobs available for workers needing accommodations. Program staff and partners described barriers to work for people with disabilities, including lack of transportation in rural areas and basic social needs (such as food and financial insecurity) that must be addressed before being able to focus on returning to work.

Exhibit VI.2. RETAIN program environment in Ohio

Economic indicators	Ohio	United States
Unemployment rate (June 2022)[a] (%)	3.9	3.6
Employment rate among working-age people without disabilities (2020)[b] (%)	76.5	75.0
Employment rate among working-age people with disabilities (2020)[b] (%)	36.8	37.0

[a] U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2022.

[b] Institute on Disability/University Center for Excellence in Disability, University of New Hampshire, Annual Disability Statistics Compendium, 2021.

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

[35] The Ohio Bureau of Worker's Compensation played a larger role in Phase 1 by advising on OH RETAIN implementation strategies based on best practices they had identified in the occupational injury context.

2. COVID-19 pandemic

The COVID-19 vaccination rate in Ohio is 59 percent, which is lower than the 67 percent vaccination rate nationwide.[36]

Program leaders and partners described mixed effects of the pandemic on OH RETAIN. The pandemic has minimally affected program delivery because OH RETAIN had already shifted its processes (for example, worker recruitment and enrollment, RTW coordination service delivery) to occur virtually. Although some medical provider and employer outreach occurs in-person, program staff did not share any pandemic-related barriers to these interactions. Program leaders and partners have observed some patients being reluctant to attend medical office visits due to fear of COVID-19, or not following through on actions like physical therapy visits due to mask requirements. These challenges might extend to the experiences of some OH RETAIN enrollees.

Program leaders and partners noted mixed effects of the pandemic on work opportunities for OH RETAIN enrollees. There are more job openings than pre-pandemic. Remote jobs are more plentiful, which benefits enrollees qualified for these positions, but many of the job openings (such as those in the service and health care industries) involve physical demands that may not be suitable for enrollees. Partners noted that workers needing accommodations who have primarily worked in physically demanding jobs may have more opportunities available if they are willing to undergo career retraining. Program staff shared that in Phase 2, enrollees have been less reluctant to agree to the RTW coordinator contacting their employers than in Phase 1, which staff attribute in part to enrollees perceiving they have greater job security in the current employment environment. Program leaders and partners said that because employers are short-staffed, they are seeing the need to focus on retaining employees; however, many employers are currently too overwhelmed to engage in efforts like OH RETAIN.

D. OH RETAIN's enrollment is on-track to meet enrollment targets

OH RETAIN only enrolls patients receiving medical care from the lead health care partner, Mercy Health. Worker recruitment and enrollment processes are standardized across the three OH RETAIN regions. Severity review nurses identify most potential enrollees through EMR reports and receive referrals from medical providers. A summary of the recruitment and enrollment process is included in Appendix D (Exhibit D.2).

1. Early enrollment outcomes

During the first six months of enrollment (January 19, 2022, through June 30, 2022), OH RETAIN enrolled 612 workers, or 18 percent of its goal of enrolling 3,500 workers. The first six months of enrollment represent about 21 percent of the enrollment period. Among enrollees, 50 percent are treatment enrollees and 50 percent are control enrollees (Appendix D, Exhibit D.3).

[36] Johns Hopkins University Coronavirus Resource Center, 2022. Available at https://coronavirus.jhu.edu/region. Accessed May 3, 2022.

2. Referral sources

The primary source of referrals is a set of EMR reports that list patients with specified musculoskeletal or cardiovascular conditions who had an office visit the previous day. Severity review nurses run these reports daily and review listed patients' medical records to assess eligibility. Participating medical providers also refer patients. There have been very few self-referrals.

3. Outreach strategies

OH RETAIN does not focus outreach efforts on the general worker population, because workers must have a provider employed by the lead health care partner to be eligible for the program; however, workers who learn about OH RETAIN through sources such as employer outreach events, the program's website, social media sites, or word-of-mouth can self-refer. Program staff can connect self-referred workers with providers employed by the lead health care partner if the workers are not already receiving health care through the lead health care partner and are interested in enrolling in OH RETAIN.

4. Strategies for recruiting underserved populations

Many of the lead health care partner's hospitals and ambulatory care clinics are strategically located in historically underserved, low-income communities. Therefore, much of the patient population from which recruitment staff identify eligible workers live or work in these communities. Recruitment staff focus outreach efforts on medical providers practicing in opportunity zones, which are low-income, underserved areas staff identified using Social Vulnerability Index data.[37] One challenge program staff noted is that some medical providers practicing at residency clinics that have large low-income, underserved patient populations cannot receive compensation for OH RETAIN participation due to the residency clinics' billing policies. Therefore, some of these providers are unwilling to participate. Program staff continue to explore how to encourage providers at these clinics to participate in OH RETAIN so their patients can enroll in the program.

5. Screening for eligibility

OH RETAIN enrolls workers who have experienced the onset or worsening of a non-work-related musculoskeletal or cardiovascular injury or illness in the past three months. They must be employed or in the labor force, ages 18 to 65, and living in Ohio. In addition, they must have a medical provider employed by the lead health care partner who has completed OH RETAIN training.

Program leaders and staff cited clear division of responsibilities among staff involved in the screening and recruitment process that work well in contributing to increasing the enrollment rate. Three experienced severity review nurses generate the EMR reports and retrieve medical provider referrals from the EMR daily. The severity review nurses review patients' medical records to screen for eligibility and to determine whether the patient's condition is severe enough to impact their ability to work.[38] Program leaders and staff emphasized the value of having a dedicated severity review process. They said that by dividing responsibilities between the nurses who have the clinical expertise to conduct severity reviews

[37] The Social Vulnerability Index uses U.S. census variables to rank communities on social factors (such as poverty or lack of vehicle access) and identify communities that are especially at risk during public health emergencies. The Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry's Social Vulnerability Index is available at https://www.atsdr.cdc.gov/placeandhealth/svi/index.html.

[38] For the severity review, nurses look at a patient's medical record to confirm that the patient's age, condition, and timing of condition onset or worsening meet the eligibility criteria and that the condition is not work-related.

and the staff making recruitment calls to patients, recruitment efforts are more efficient and focused on the patients who are most likely to be good candidates for the program—thereby increasing the enrollment rate. Program staff also noted that the OH RETAIN eligibility criteria work well to identify workers for the program.

Severity review nurses share a list of patients for recruitment with the nine-person recruitment staff team. Upon receiving this list, a recruitment staff member calls the patients whose providers are enrolled in OH RETAIN to ask additional screening questions (including their place of employment) to confirm eligibility, inform them about OH RETAIN, and ask if they would like to participate in the program.[39]

The primary challenge with confirming eligibility is reaching potential enrollees; many do not answer their phones. OH RETAIN uses a caller ID that shows calls to potential enrollees as coming from "OH RETAIN," and staff highlight the enrollment incentive (a $100 Target gift card) in voicemails to increase the likelihood that potential enrollees will answer. Program staff also send letters to potential enrollees who have not responded after two call attempts, and they have seen some potential enrollees call back after receiving the letter.

6. Recruitment

Recruitment staff find it helpful to reference specific information from the medical record (for example, the patient's condition and the name of their medical provider) to establish credibility when they reach out to potential enrollees. Because recruitment staff only contact potential enrollees whose providers are enrolled in OH RETAIN, they can frame the program as an opportunity the provider supports. Program staff highlight the gift card incentive and share that potential enrollees generally react positively to this incentive.

RTW coordinators call interested potential enrollees to complete enrollment. To complete enrollment, RTW coordinators review the informed consent—which enrollees sign via DocuSign software—and complete randomization.[40,41] RTW coordinators ask treatment enrollees questions to assess their need for social work services.

Enrollment challenges include potential enrollees not answering their phones and not being comfortable with study requirements (for example, sharing their Social Security number). To overcome these challenges, RTW coordinators have begun emailing potential enrollees before calling to introduce themselves and remind the enrollee of their call time, which has helped with connecting over the phone. RTW coordinators find that clearly explaining how data will be shared helps overcome enrollees' concerns. RTW coordinators continually share with one another verbiage and practices they have found helpful for enrollment.

Program leaders and staff described how the characteristics and backgrounds of recruitment staff, training, and regular communication among the recruitment team facilitate recruitment efforts. Recruitment staff huddle daily and meet weekly to review progress and set concrete recruitment goals for the next week, which program staff cited as a helpful and motivating practice. Program leaders described

[39] If there are patients in the list whose providers are not yet enrolled in OH RETAIN, staff will try to recruit these providers. If a provider enrolls in OH RETAIN, a coordinator will then reach out to their potentially eligible patients.
[40] Enrollees sign a release to communicate with their medical provider and employer as part of informed consent.
[41] RTW coordinators mail consent documents for signature if the enrollee prefers; however, they note that this delays the enrollment process significantly.

"We trained the [recruitment staff] on tone of voice and…what to say when they leave a message. I think that's definitely been helpful. Almost like… customer service, just the way that you're talking to someone, are you just trying to get through the phone script or are you actually listening to them and offering some sympathy? We did some in-depth training on that, and I think that was helpful for sure."

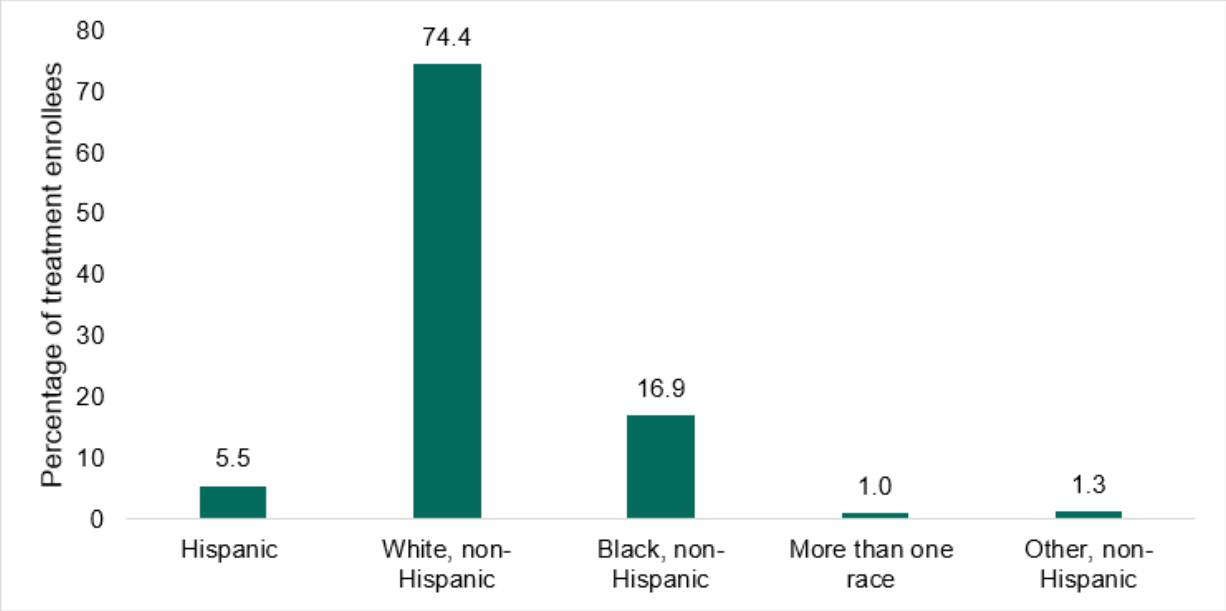
-Program Staff

the recruitment staff team as diverse in terms of job backgrounds, race and ethnicity, and lived experience and said these characteristics enable the coordinators to relate well to workers over the phone. Staff also cited ongoing training efforts, such as training on customer service principles, as valuable for recruitment. Program leaders noted that due to the budget available for staff, most recruitment staff are recent college graduates, who may lack work experience. This has necessitated spending additional time on general professional skills mentorship.

7. Treatment enrollee characteristics

We used enrollment data submitted by OH RETAIN to assess demographic characteristics for the 308 individuals who enrolled during the first six months of the enrollment period (January 2022 through June 2022) and were assigned to the treatment group (Appendix D, Exhibit D.4). Most treatment enrollees were female (62 percent). The average age of the treatment enrollees was 45 years, and 42 percent were ages 50 or older. Most were White, non-Hispanic (74 percent), followed by Black, non-Hispanic (17 percent); others were similarly distributed across the remaining race and ethnicity groups (Exhibit VI.3). Most of the treatment enrollees had at least a high school diploma, GED, or certificate of completion (93 percent), and most preferred English as their spoken language (99 percent).

Exhibit VI.3. Race and ethnicity characteristics of treatment enrollees (percentage)



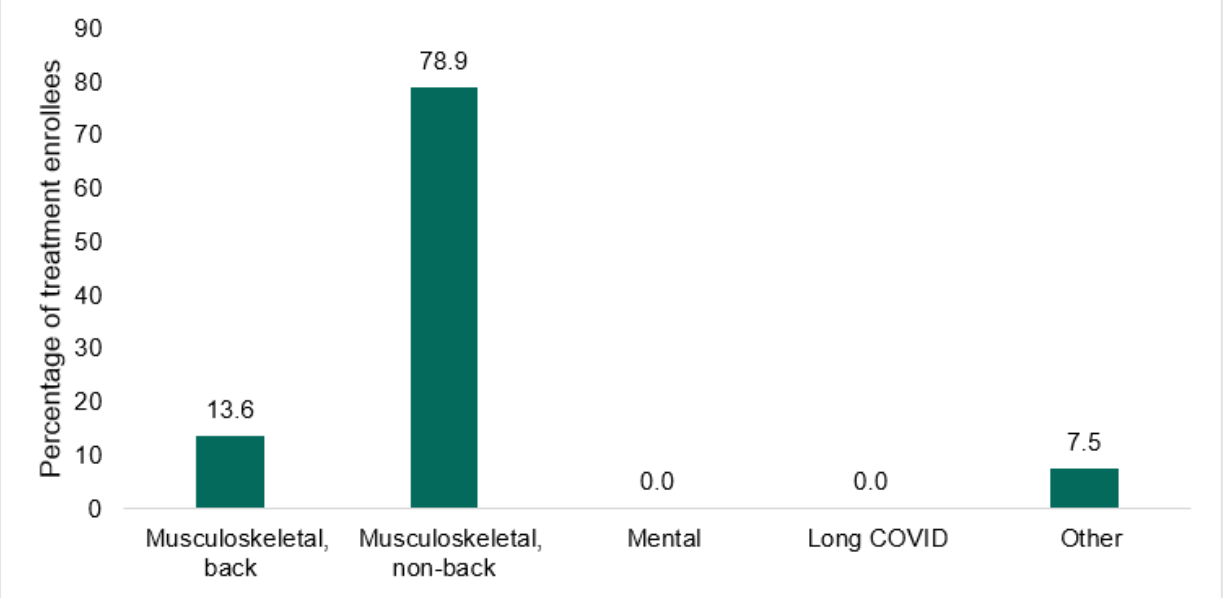
Source: OH RETAIN enrollment data through June 30, 2022.

Note: Suppressed "Asian, non-Hispanic" to avoid disclosing information about particular individuals. Therefore, percentages do not add to 100 percent.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

We also used the enrollment data submitted by OH RETAIN to assess illness and injury characteristics for the same 308 treatment enrollees (Appendix D, Exhibit D.5). Most treatment enrollees reported a primary diagnosis of a musculoskeletal condition, with 79 percent reporting a non-back musculoskeletal condition, and 14 percent reporting a musculoskeletal back condition (Exhibit VI.4). OH RETAIN enrolls people with work- and non-work-related conditions, and 2 percent of enrollees reported their injury or illness was related to work. People with a pre-existing or new condition are eligible, and, for OH RETAIN, about half of treatment enrollees reported their illness or injury was a new condition at the time of enrollment (51 percent). Many reported their condition was a result of an accident or injury (61 percent). Treatment enrollees had an average of 29 days between their onset of primary diagnosis (either a new condition or worsening of a chronic condition) and enrollment in OH RETAIN.

Exhibit VI.4. Primary diagnosis characteristics of treatment enrollees (percentage)



Source: OH RETAIN enrollment data through June 30, 2022.

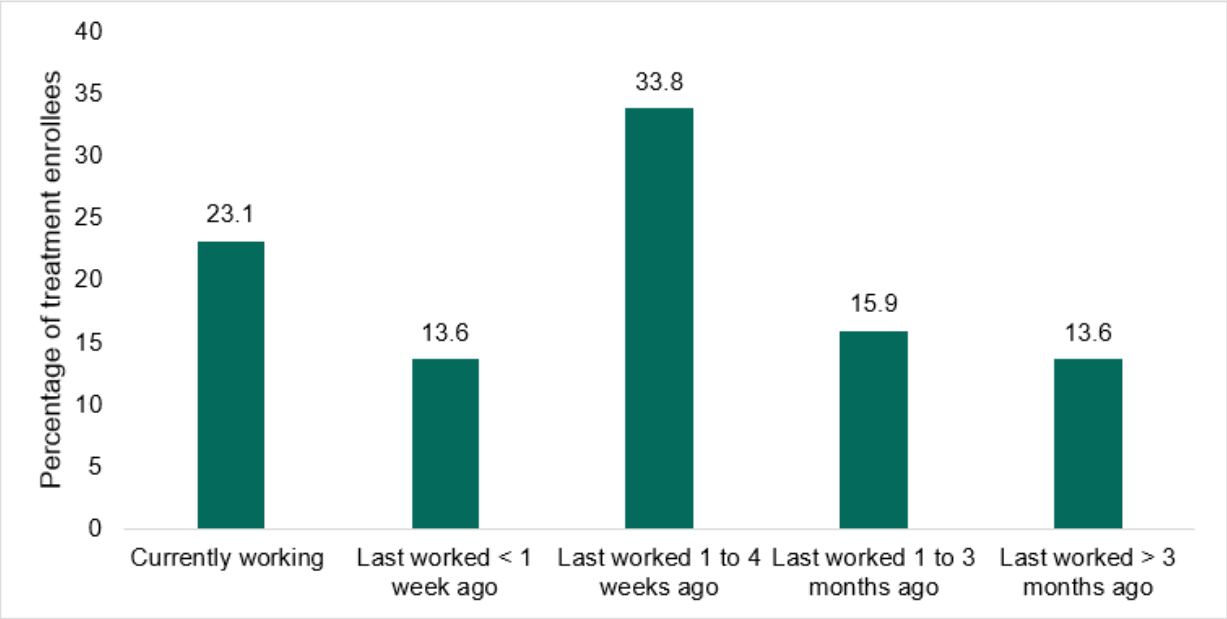
Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental; and Other. These groupings build on previous studies of return to work among injured or ill workers. We include the mapping of ICD-10 codes into these categories in Appendix D, Exhibit 5.

ICD = International Classification of Diseases; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data submitted by OH RETAIN to assess employment and benefit characteristics for the same 308 treatment enrollees described above (Appendix D, Exhibit D.6). All RETAIN programs must enroll workers who are employed or in the labor force, and, for OH RETAIN, most treatment enrollees were employed (81 percent). Many treatment enrollees last worked within one month of enrollment (71 percent), and most last worked within three months of enrollment (86 percent) (Exhibit VI.5). On average, treatment enrollees were employed full time (40 hours per week) before onset of injury or illness. A little more than half of treatment enrollees worked at their current job for two or more years (57 percent). Over the last year, many treatment enrollees earned at least $1,000 per month (78 percent). The highest proportion of treatment enrollees were classified as holding a service occupation (43 percent) (Exhibit VI.6). Other treatment enrollees held occupations in production, transportation, or

material moving (23 percent); management, professional or related (21 percent); natural resources, construction, or maintenance (7 percent); or sales and office (6 percent).

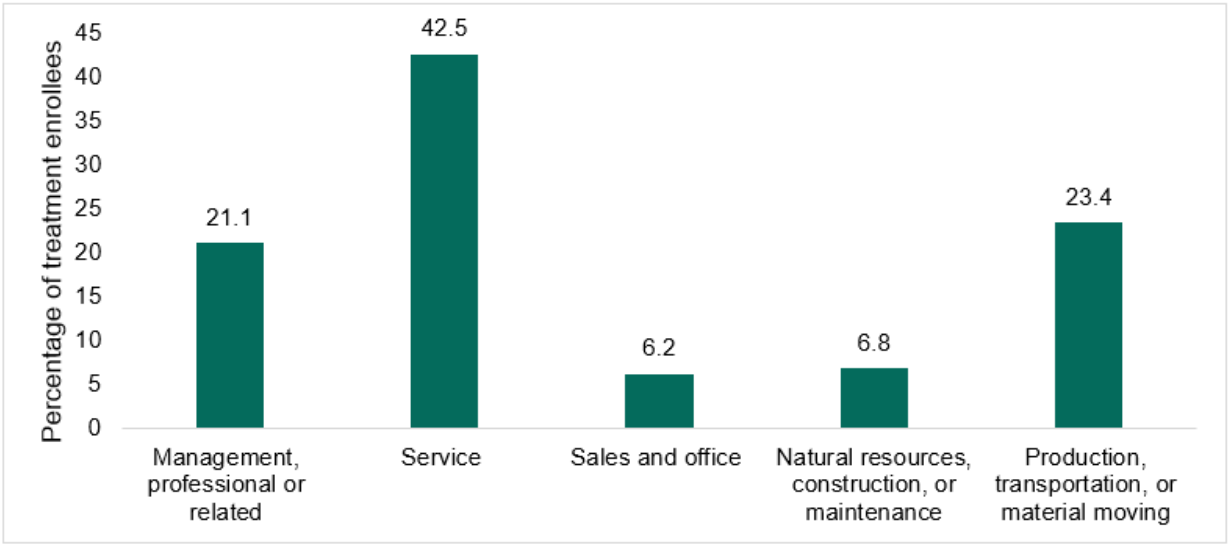
Exhibit VI.5. Length of time since last worked before enrollment for treatment enrollees (percentage)



Source: OH RETAIN enrollment data through June 30, 2022.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

Exhibit VI.6. Occupational classification of pre-injury/illness job for treatment enrollees (percentage)



Source: OH RETAIN enrollment data through June 30, 2022.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to compare treatment enrollee characteristics to control enrollee characteristics. As outlined in the Evaluation Design Report, we expected treatment and control enrollees to have similar baseline characteristics, because each state has a random assignment design (Berk et al. 2021). We found no significant differences between treatment and control enrollees in the characteristics examined (Appendix D, Exhibit D.4, Exhibit D.5, and Exhibit D.6).

E. OH RETAIN's early service delivery is going as planned

At the time of the interviews in June 2022, program staff were implementing RTW coordination services as planned in the OH RETAIN program model. There was a contrast between treatment and control services.

1. Medical provider services

Medical providers must complete online trainings to enroll in OH RETAIN (Exhibit VI.7). The trainings focus on OH RETAIN program offerings and SAW/RTW best practices. The trainings also address the benefits of providers using a biopsychosocial model; for instance, using a health behavior assessment to proactively identify any behavioral barriers (for example, fear of re-injury, fear of movement) that might impede a patient's recovery. To address feedback received from medical providers in Phase 1, the OH RETAIN team developed a refresher training which providers complete one year after enrolling in OH RETAIN. Providers enrolling in OH RETAIN also receive one-on-one training from program staff on how to document in the EMR when they use SAW/RTW best practices with OH RETAIN treatment enrollees. By documenting procedure codes for these best practices, providers receive additional compensation.

Exhibit VI.7. OH RETAIN medical provider services

Program component	Description
Training medical providers	• Provider can access a provider toolkit and five training modules in the lead health care partner's online learning system. These materials provide information on occupational health best practices. • Provider receives one-on-one training on how to document when they have used occupational health best practices in the EMR. • Provider completes a refresher training on occupational health best practices one year after their initial training.
Incentivizing medical providers	• Providers who complete the five training modules receive a $500 incentive payment and 3.75 CME credits. Providers receive a $100 incentive payment for completing the refresher training. • Providers are compensated for performing occupational health best practices. Compensation is based on the average time necessary to complete each best practice, multiplied by the provider's billing rate.

CME = continuing medical education; EMR = electronic medical record; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

According to program leaders and staff, medical provider training has gone as planned. At the time of the site visit, more than 90 percent of providers who indicated they wanted to enroll in OH RETAIN had completed the online trainings. Recruitment staff continually set goals for and monitor provider training completion rates and follow up with providers who have not yet completed training. Staff shared that at times, they find it helpful to have the provider champions nudge their peers to complete the trainings.

Providers have responded positively to the incentives for completing trainings but have had mixed responses to the incentives for documenting the use of occupational health best practices with patients. While some providers have been incentivized by the opportunity to receive additional compensation for using and documenting best practices, others do not believe the additional compensation is worth the inconvenience of having to document the best practices.

2. RTW coordination services

Six RTW coordinators provide SAW/RTW coordination services to treatment enrollees (Exhibit VI.8). Services include developing a care plan and establishing treatment goals, assessing functional recovery, making appropriate referrals, and communicating with the enrollee's medical provider and employer. SAW/RTW coordination services end after six months or when the treatment enrollee returns to work with a completed RTW plan, whichever comes first.

Exhibit VI.8. OH RETAIN RTW coordination services

Program component	Description
Coordinating RTW services	• RTW coordinators create an individualized RTW plan for treatment enrollees. • RTW coordinators make a series of contacts with treatment enrollees and their employer to assess their ability to work and to explore needs for work accommodations. • RTW coordinators continue to contact treatment enrollees at least every 30 days to assess progress and offer moral support. • If treatment enrollees need additional social supports[a], RTW coordinators refer them to the social worker team for additional social needs assessment and resources. Social workers conduct behavioral health screening and refer enrollees to behavioral health treatment as necessary. • If treatment enrollees' providers release the enrollee to return to work without restrictions, RTW coordinators notify the employer of the RTW date. • If treatment enrollees are unable to return to their previous job or need additional services, RTW coordinators refer them (with the enrollee's permission) to the local lead workforce partner's job center.
Communicating among parties involved in RTW plan	• RTW coordinators are responsible for timely communications with treatment enrollees, their employer, and their medical provider. • RTW coordinators communicate with social workers about treatment enrollees through the EMR or in biweekly interdisciplinary team meetings. • RTW coordinators have designated contacts at the lead workforce partners' local job centers and at the workforce partner for VR services. RTW coordinators send referrals to these contacts or consult with them on which services might benefit treatment enrollees.
Monitoring treatment enrollee progress	• RTW coordinators track treatment enrollees' progress in the EMR. RTW coordinators capture data on enrollees' employment and health status through conversations with enrollees, their employer, and their medical provider, and by reviewing case notes in enrollees' medical record. • Social workers track case management progress in the EMR. • The lead workforce partners' job centers track services provided to enrollees in the statewide workforce case management system[b]

EMR = electronic medical record; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; VR = vocational rehabilitation.

[a] The most common social needs of treatment enrollees are financial insecurity, food insecurity, and mental health.

[b] Advancement through Resources, Information, and Employment Services (ARIES) is Ohio's case management system. ARIES replaces the Ohio Workforce Case Management System.

a. Coordinating RTW services

Program data submitted by OH RETAIN indicate that most treatment enrollees received OH RETAIN services (79 percent), including RTW coordination services or other RTW services (Exhibit VI.9). Most treatment enrollees (78 percent) had an established RTW plan. An average of about 16.8 days elapsed from enrollment to establishment of an RTW plan for treatment enrollees enrolled in OH RETAIN. As of end of June, no treatment enrollees exited the OH RETAIN program.

Exhibit VI.9. Treatment enrollees' receipt of RTW coordination services

Service received	Percentage of treatment enrollees
Received any services beyond enrollment[a]	78.9
Established an RTW plan	77.9
Time elapsed between enrollment and established RTW plan (days)	16.8
Exited OH RETAIN	0.0
Duration of services (if exited) (days)	n.a.
Referred to services beyond OH RETAIN after six months	n.a.

Source: OH RETAIN service use data through June 30, 2022.

[a] Any services beyond enrollment includes establishing an RTW plan or receiving an employment service such as job search assistance, training, on-site job analysis, ergonomic assessment, or transitional work opportunities.

n.a. = not applicable; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Program leaders and staff noted that RTW coordinators' experience, training, and communication channels facilitate RTW coordination service delivery. All RTW coordinators are experienced case managers who have previously worked in fields ranging from behavioral health to hospice to extended care facilities. The RTW coordinator team benefits from this diversity of case management experience as they draw on their different strengths and areas of expertise. In addition, a coordinator involved in Phase 1 conducts RTW coordinator training and serves as a mentor to newer coordinators. Staff said that RTW coordinators have a virtual chatroom, which enables them to maintain open lines of communication and discuss questions about enrollee cases on a daily basis.

Program staff shared that having a dedicated social work team has been invaluable for addressing treatment enrollees' social needs. Rather than RTW coordinators attempting to deliver RTW coordination services while also identifying and navigating referrals to address enrollees' social needs, social workers with expertise in assessing social needs and connecting patients to resources lead this effort. Staff said that the RTW coordinator and social work teams communicate frequently and have biweekly interdisciplinary team meetings, which have been helpful opportunities to discuss complex cases.

Although there are some treatment enrollees who do not actively participate or respond to RTW coordinators' calls after enrolling, treatment enrollees who actively participate in OH RETAIN have provided positive feedback to program staff. Treatment enrollees have expressed appreciation that someone cares and is calling to check in on them, shared that it has been valuable to them to have their feelings validated by their RTW coordinator, and said that they do not know what they would do without their RTW coordinator. Similarly, treatment enrollees receiving social work services through OH RETAIN have shared that it means a lot to them to be able to talk with someone who cares about their situation.

b. Communicating among parties involved in enrollee return to work

In Exhibit VI.10, we list the possible avenues of communication among RTW coordinators and others involved in enrollees' RTW plans, namely the employer and medical provider, and the percentage of reported communications that occurred with each, as reported in the program data OH RETAIN submitted.

Exhibit VI.10. Percentage of treatment enrollees whose RTW coordinator communicated with others involved in their return to work

Communication among parties involved in treatment enrollees return to work	Percentage of treatment enrollees
Treatment enrollee's RTW coordinator communicated with employer at least once	68.2
Treatment enrollee's RTW coordinator communicated with medical provider at least once	100.0
Treatment enrollee's RTW coordinator communicated with workforce professional at least once	4.9

Source: OH RETAIN service use data through June 30, 2022.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

When they consent to participate in OH RETAIN, all enrollees must sign releases allowing RTW coordinators to contact their medical provider and employer. When enrollees are assigned to the treatment group, RTW coordinators contact enrollees' medical providers to update them on enrollees' treatment goals. OH RETAIN requires medical providers also enroll and participate in the program so patients can be eligible for enrollment. This is visible in OH RETAIN's service use data because all treatment enrollees' RTW coordinators communicated with a medical provider at least once (100 percent) (Exhibit VI.10). RTW coordinators contact treatment enrollees' employers within three days of completing enrollment to explore opportunities for enrollees' return to work. RTW coordinators track interactions with medical providers and employers in the EMR. If RTW coordinators identify enrollees that have unmet social needs, they refer enrollees to the OH RETAIN social work team to further assess these needs and connect them to resources.

Program staff shared that communication between RTW coordinators and medical providers has generally gone well. Most employers have also been receptive to discussing SAW/RTW plan options with RTW coordinators, and about 68 percent of treatment enrollees' RTW coordinator communicated with an employer at least once (Exhibit VI.10). The RTW coordinator team established guidance around which enrollee-specific information should and should not be shared with employers, which has eased RTW coordinators' initial concerns about having these conversations.

"We're just getting the specialists on board with what it is [RTW coordinators] can do for their patients. And you're finding that they're [saying], 'Oh, well if you can help with that, can you help so and so do this?' or 'Thank you'. Being the advocate, being that phone call in between office visits, we're saving the provider the phone calls they'd be getting at the office."

-Program Leader

c. Monitoring treatment enrollee progress

RTW coordinators monitor treatment enrollees' progress through telephone calls every 30 days or after enrollees have a visit with their medical provider. During these calls, the coordinator conducts an initial social needs assessment; asks about the enrollee's employment status, barriers, goals, and communication

with the employer; and identifies any needs for referrals. The RTW coordinator follows up on progress with treatment plans the medical provider has established with the enrollee (for example, physical therapy, occupational therapy, and pain medication) and on any referrals the provider has made for the enrollee (for example, to specialists or pain management). Finally, the RTW coordinator works with the enrollee to determine a plan for the enrollee's next medical visit. RTW coordinators use a flow sheet template in the EMR to guide these conversations and to document information. Staff expressed that using the EMR flow sheets has been helpful in structuring conversations with treatment enrollees and documenting comprehensive information.

3. Other RTW services

RTW coordinators refer enrollees to the lead workforce partners—the Local Workforce Development Boards' OhioMeansJobs centers—for career services or retraining, or to the workforce partner for VR services, Opportunities for Ohioans with Disabilities (Exhibit VI.11).

Exhibit VI.11. OH RETAIN other RTW services

Program component	Description
Supporting workplace-based interventions	• The workforce partner for VR services can consult with employers needing support with individual worker accommodations.
Retraining or rehabilitating enrollees	• If treatment enrollees are no longer able to perform their prior job, RTW coordinators refer them to the local lead workforce partner's job center for workforce services. Case managers from the job center contact enrollees, assesses enrollees' needs, and offer an orientation on available services. • Job center case managers may offer treatment enrollees job search assistance or enrollment in partner programs for more intensive services, such as VR, training, supportive services, and job search assistance. • RTW coordinators can refer enrollees with physical or mental disabilities severe enough to meet VR eligibility criteria directly to the workforce partner for VR services.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; VR = vocational rehabilitation

a. Supporting workplace-based interventions

The workforce partner for VR services can consult with employers wanting support with individual worker accommodations as needed. There are also OH RETAIN grant funds available to employers for equipment to enable accommodations. As of end of June, approximately 15 percent of treatment enrollees received a workplace accommodation (Exhibit VI.12).

Exhibit VI.12. Treatment enrollees' receipt of workplace-based interventions

OH RETAIN service use and data outcomes	Percentage of treatment enrollees
Received on-site job analysis	0.0
Received ergonomic assessment	0.0
Received workplace accommodation	15.3

Source: OH RETAIN service use data through June 30, 2022.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

b. Retraining or rehabilitating enrollees

RTW coordinators refer treatment enrollees to the lead workforce partners' job center services when enrollees are out of work and seeking employment or when their employers are unable to accommodate their work restrictions, and the enrollees are open to connecting with career services. If enrollees have physical or mental disabilities severe enough to meet VR eligibility criteria, RTW coordinators may refer them directly to the workforce partner for VR services. Alternatively, if RTW coordinators refer enrollees to a job center and the job center staff determines that the enrollees are eligible for VR, it will make that referral to the workforce partner for VR services.

Program staff and partners noted that coordination between the lead health care partner and the workforce partners is strong. They recently established referral protocols under which there are designated workforce partner contacts for RTW coordinators in each region. RTW coordinators can call these contacts to discuss whether their services would be appropriate for individual enrollees. The workforce partners with whom we spoke in the Youngstown region believed these referral protocols have been helpful.

Program partners shared that, although there have been referrals to job centers, enrollees often do not answer their phones when job center staff call, and those who do answer are receptive to hearing about services but not ready to act. Partners said this reaction was not surprising because often it can be difficult for people who are out of a job—and have a recent injury or illness—to process job-related identity shifts. This is consistent with OH RETAIN's program data: no treatment enrollees received retraining or rehabilitating services (Exhibit VI.13). Program partners speculated that enrollee readiness for job center services may take more time than the six-month OH RETAIN service delivery period allows. Partners shared a similar challenge with referrals to the workforce partner for VR services: most referred OH RETAIN enrollees discontinued VR services while they focused on adjusting to the impact of their new disability on their life.[42]

> *"I spoke with the person who makes those calls [about retraining] to the participants once the referrals are made. And not surprisingly, she said…they are receptive to the information and not ready to act… that's not unusual for people when they lose their jobs for any reason. There's a recovery period where you really are trying to identify who you are and what your goals are--separating your identity from your old employer. And in this situation, you are going to need to separate your identity from your occupation as well as your employer. So I think particularly for people who have been in a position for several years, the length of time will probably be longer before they're ready to make a commitment to what their new life is."*
>
> -Program Partner

Exhibit VI.13. Treatment enrollees' receipt of retraining or rehabilitating services

OH RETAIN service use and data outcomes	Percentage of treatment enrollees
Received job search services	0.0
Received training services	0.0
Participated in a transitional work opportunity[a]	0.0
Received workforce development services	0.0

Source: OH RETAIN service use data through June 30, 2022.

[a] Transitional work opportunity is a time-limited job at a new employer during an enrollee's recovery period to meet the enrollee's work restrictions until their employer is able to provide work accommodations.

[42] In Phase 2, there have not yet been referrals to the workforce partner for VR services in the Youngstown region; this reflects Phase 1 experiences.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

4. Service contrast

There is a clear distinction between treatment and control services. After randomization, RTW coordinators provide control enrollees with a packet of resources that control enrollees can access on their own. RTW coordinators have no further interaction with control enrollees. RTW coordinators notify medical providers when their patients are assigned to the control condition and then have no further contact with providers about control enrollees; nevertheless, there is a possibility of contamination if a provider implements SAW/RTW best practices with control enrollees. This could occur if the provider is in the habit of using these best practices with all patients experiencing conditions that affect their ability to work.[43]

OH RETAIN offers unique RTW services relative to those available outside of OH RETAIN. Workers with work-related injuries or illnesses can receive services through the Ohio Bureau of Worker's Compensation. Workers can directly access employment support or retraining services through the lead workforce partners' job centers, and workers with physical or mental disabilities can access VR services through the workforce partner for VR. Nonetheless, program partners believe that many workers are not aware of these services. The coordination with medical providers, employers, and other services provided by RTW coordinators is unique to OH RETAIN and fills a gap in the state.

5. Collecting and reporting program data

OH RETAIN staff use the lead health care partner's EMR to document enrollment data, case information, and enrollee progress. Program staff were overwhelmingly positive about the EMR and said that the flow sheets the OH RETAIN team built to outline data elements to collect during enrollee interactions promote efficient and complete data collection. Many staff were already familiar with the EMR system prior to working on OH RETAIN through other job experiences. Staff also use customer relationship management software to track medical provider, employer, and worker recruitment and enrollment.[44] Although some staff members experienced a learning curve with the customer relationship management software, they generally highlighted the value of the software's reporting functions. Ohio recently launched a new statewide workforce case management system, Advancement through Resources, Information, and Employment Services (ARIES). Program partners noted that this system is still being adopted. The lead workforce partners' job centers will track information for referred enrollees who register for career services in this system.

At the time of the site visit, OH RETAIN was experiencing challenges with aggregating enrollment and service use data for reporting to SSA. The lead health care partner sends data extracts to the lead agency weekly. Program staff identified instances where the data extracts did not import properly into the centralized data repository (where the lead agency merges data for reporting). The OH RETAIN team identified the cause of this issue and submitted quarterly data for the evaluation in early July 2022. In addition, there were challenges with integrating the new workforce case management system with the

[43] To guard against contamination, OH RETAIN implemented automated EMR notifications to remind providers to use RETAIN best practices with treatment enrollees. These reminders are not triggered for control enrollees. In addition, OH RETAIN's online and in-person medical provider trainings emphasize the importance of avoiding contamination and because the lead healthcare partner participates in other research studies, medical providers tend to be familiar with this research practice.

[44] OH RETAIN recruitment staff use the Salesforce customer relationship management software.

centralized data repository. However, since the site visit, OH RETAIN was able to report on the workforce service data needed for the evaluation.

Program leaders said that some data elements have not been well-defined by federal partners and requiring certain fields to be filled has created more work to prepare data submissions. However, technical assistance from DOL and Mathematica has helped in determining how to handle these elements.[45]

F. Areas for continued monitoring and evaluation technical assistance

Our analysis of the interview data collected in June 2022 raised an issue that could affect the impact evaluation. The Mathematica team will continue to monitor this issue and provide evaluation technical assistance as needed.

- Because medical providers must complete OH RETAIN training and agree to participate in the program for their patients to be eligible to enroll, individual providers could potentially have patients enrolled in the treatment group and patients enrolled in the control group. Although RTW coordinators notify providers when a patient is randomized to the treatment or control group and OH RETAIN has implemented safeguards against contamination through EMR notifications and provider trainings, there is a risk that providers who completed the OH RETAIN training on occupational health best practices may use these best practices with control enrollees. Although control enrollees do not receive any services from RTW coordinators, this could potentially weaken the treatment–control group contrast. The evaluation team plans to assess whether this is occurring through the enrollee survey and upcoming medical provider survey.

[45] For example, DOL requested no blank values for the "employer level of engagement" element. Program staff were accustomed to leaving this field blank until they were able to connect with an enrollee's employer, which meant that at the time of submission, the field was blank for some enrollees. Staff now need to go back and add a value into this field so the data submission will be accepted.

VII. Vermont RETAIN

Key findings

- VT RETAIN benefitted from the diverse expertise of staff across its partners and four centers (operational, clinical coordinating, development, and data coordinating). Organizing staff into several work groups with designated milestones helped VT RETAIN address the complexity of coordinating communication and activities across partners.
- Primary care practices were VT RETAIN's only referral source as part of its clustered random assignment design. VT RETAIN relied on a partnership with Vermont's accountable care organization, OneCare Vermont, to recruit primary care practices to implement pre-screening to identify patients who might be eligible for the study. By June 2022, VT RETAIN enrolled 57 primary care practices with the goal of enrolling 68 practices.
- During the first four months of enrollment (March through June 2022), VT RETAIN enrolled 36 workers, 1.8 percent of its enrollment goal, which was lower than expected. The burden of the COVID-19 pandemic on participating practices led it to delay implementing pre-screening of potential enrollees.
- Almost half of the treatment enrollees reported a primary diagnosis of a musculoskeletal condition. Treatment enrollees had an average of 80 days between the onset of their primary diagnosis and enrollment. Many treatment enrollees were employed at the time of enrollment, with the highest proportion of treatment enrollees holding a service occupation.
- About 60 percent of treatment enrollees received VT RETAIN services beyond enrollment. VT RETAIN reported 50 percent of treatment enrollees received workplace accommodations and 17 percent received employment services.
- VT RETAIN focused on sustainability planning, including using its training and development program to train employers, medical providers, and workers in SAW/RTW best practices and create educational resources that would last beyond the grant.
- VT RETAIN made a concerted effort to center equity in its work by enrolling practices that served historically underrepresented patients, translating program materials into different languages, providing interpreter services, and using the results of a needs assessment to guide program implementation.
- The most significant contrast between services provided to treatment and control enrollees was access to RTW coordination services. Though VT RETAIN did not provide specific workforce development services under the program model, RTW coordinators could help connect treatment enrollees to existing VT workforce development resources.

A. Overview of Vermont RETAIN

The Vermont Department of Labor (VDOL) is the lead agency for Vermont RETAIN (VT RETAIN). Staff from VDOL's Workers' Compensation and Safety Division oversee the grant and are responsible for the program's administration, budget, and compliance. VT RETAIN aims to support adults who are employed or actively looking for a job and have an injury or illness that is limiting or could limit their ability to stay at work or return to work. Distinct from other RETAIN states, VT RETAIN uses a cluster

random assignment model. In this model, Mathematica assigns participating primary care practices to either the treatment or control group. VT RETAIN provides RTW coordination services to all enrollees recruited at treatment practices; SAW/RTW education for providers, workers, and employers; and referrals to various other services as needed. The program catchment area is the entire state of Vermont, including 14 counties.

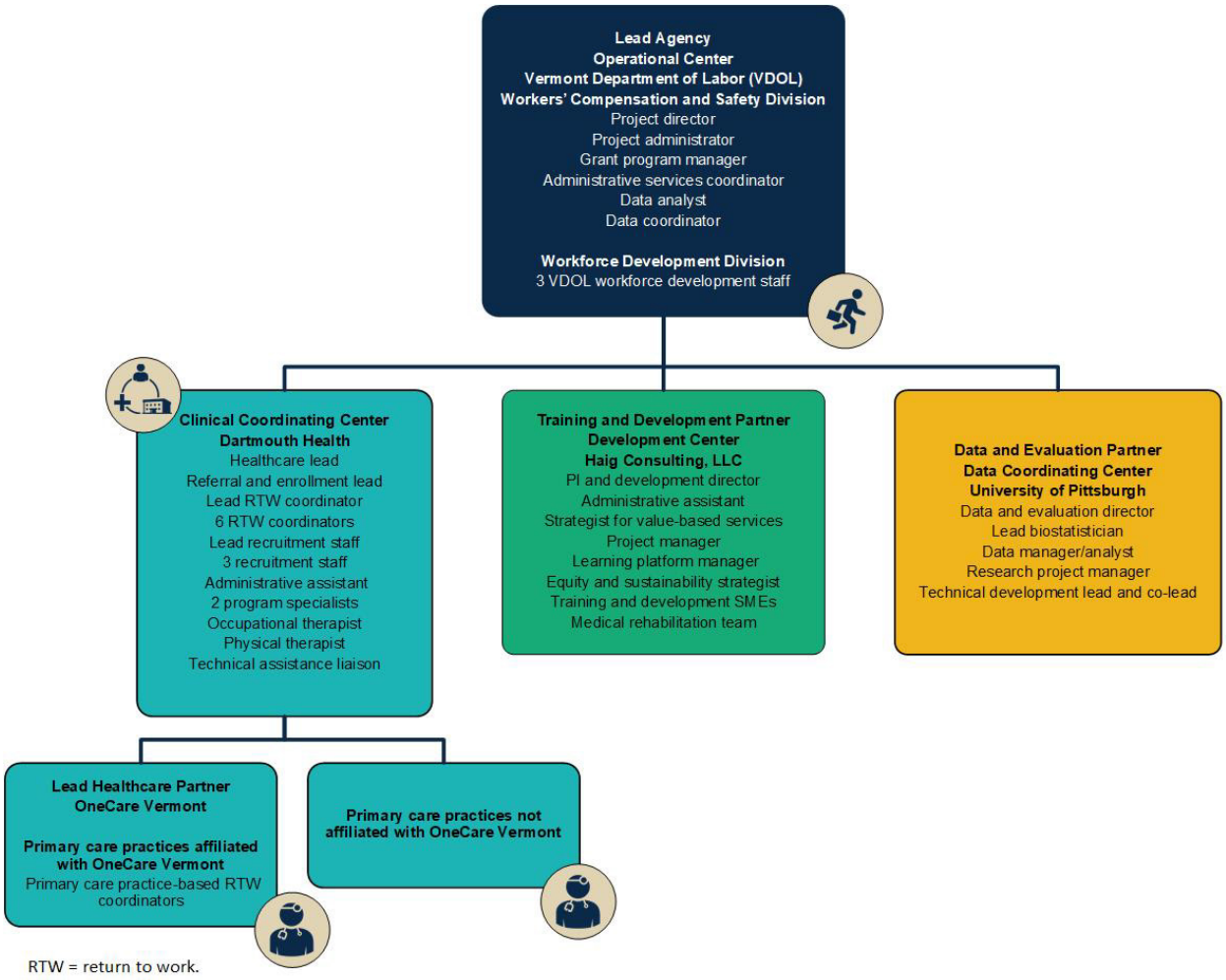
This chapter documents recruitment, enrollment, and program operations four months after enrollment began and presents findings about the initial implementation of VT RETAIN.[46]

B. VT RETAIN established partnerships and subcontracts to support enrollment, service delivery, and evaluation

The lead agency for VT RETAIN, VDOL, organized implementation and evaluation efforts into four centers, including (1) the operational center led by the lead agency, VDOL; (2) the clinical coordinating center led by, Dartmouth-Health; (3) the development center led by Haig Consulting, LLC; and (4) the data coordinating center led by the University of Pittsburgh (Exhibit VII.1). VT RETAIN also collaborates with its lead health care partner, OneCare Vermont, the state's accountable care organization founded by the University of Vermont and Dartmouth-Hitchcock, and numerous other partners to support VT RETAIN (Appendix E Exhibit E.1). In this section, we describe the main partners and their roles in supporting VT RETAIN.

[46] VT RETAIN enrolled the first worker on March 8, 2021. We collected qualitative data about implementation experiences during semi-structured site visit interviews three months after the start of enrollment. We collected program data through four months after the start of enrollment (June 2022).

Exhibit VII.1. VT RETAIN organization chart



1. Lead health care partner

VT RETAIN developed a partnership with the state's only accountable care organization, OneCare Vermont, to recruit primary care practices to participate in the clustered random assignment evaluation and pre-screen patients for enrollment in VT RETAIN. Program leaders and staff noted that OneCare Vermont's statewide influence and extensive network of medical providers facilitated the recruitment of primary care practices affiliated with OneCare Vermont across the state. Program staff also recruited practices not affiliated with OneCare Vermont to participate in VT RETAIN. In June 2022, VT RETAIN enrolled 57 primary care practices (27 treatment and 30 control) with the goal of enrolling 68 practices. Almost half of participating practices are Federally Qualified Health Centers (FQHCs) and free clinics.

The health care lead is actively involved in recruiting primary care practices. VT RETAIN assigns workers into the treatment or control group according to which practice helped recruit them. The health care lead helps develop and deliver trainings to medical providers and primary care practice staff.

Dartmouth Health is a large medical center that oversees VT RETAIN's clinical coordinating center. The clinical coordinating center supports (1) recruiting and enrolling eligible workers and (2) recruiting, training, and supporting RTW coordinators who deliver VT RETAIN services.

2. Lead workforce partner

VDOL does not have a separate lead workforce partner. Instead, VT RETAIN planned to hire a workforce development lead for VDOL's Workforce Development Division. Program staff determined the role is too large for one person, and now plan to hire three staff to work on employer relations and the integration of employment services into VT RETAIN. Program staff are creating a process for RTW coordinators to refer treatment enrollees needing career resources to employment counselors within VDOL's American Job Centers.[47] However, program staff reported they do not anticipate referring many enrollees to Workforce Development, because most treatment enrollees in Phase 1 needed SAW services rather than RTW services.

3. Other partners

VT RETAIN has established a range of partnerships to support implementation, service delivery, and sustainability efforts. In this chapter, we describe the partners that program staff discussed during the site visit as having a role in the initial implementation of VT RETAIN.

Haig Consulting, LLC, oversees the VT RETAIN development center, which coordinates a sustainability planning group and operates a training and development program for employers, medical providers, and workers. The development center creates training opportunities and educational resources based on the results of a needs assessment that VT RETAIN conducted in Phase 1. The assessment identified gaps in knowledge of SAW/RTW best practices, SAW/RTW services available in Vermont, and training needs related to helping workers who have an injury or illness stay at work or return to work. In response to these needs, program staff are developing content for an online learning platform that will be available to the public long-term. The platform will host educational resources and live and recorded trainings on various SAW/RTW topics. Program staff reported they have not been able to post the educational resources online due to a delay in executing a contract with the learning platform provider. The development center will also administer VT RETAIN grants to employers and providers to complete SAW/RTW certifications and trainings. The reported goal of the training grants is to fill gaps in existing SAW/RTW services. The learning platform resources and trainings will be available to employers, providers, and workers in Vermont regardless of their affiliation with a treatment or control group.

VT RETAIN partnered with the Vermont Chamber of Commerce and is continuing to build partnerships with organizations that can help them engage employers to market the training and development program and find job placements for treatment enrollees. The needs assessment revealed that employers lacked knowledge and resources to support the workplace needs of people with mental health and substance use challenges. To address this, VT RETAIN is working with Recovery Vermont and the VT Department of Mental Health to develop a mental health and substance use disorder recovery training and certification program for Vermont employers. VT RETAIN is also developing a partnership with Working Fields, an organization with more than 80 employer contacts that is committed to helping people in recovery from substance use disorders stay at work and return to work.

[47] DOL funds American Job Centers throughout the country to provide career services to job seekers.

Program leaders and staff reported that the training and development program is integral to VT RETAIN's sustainability efforts. The sustainability planning group, comprised of representatives of VT RETAIN partners, also identifies decision makers, funding mechanisms, and policy changes to help sustain VT RETAIN beyond the grant.

"There's really two aspects of VT RETAIN. One is definitely the clinical trial and that takes priority and we've dropped everything to really focus on that right now. But underlying it all is we want to leave Vermont in a better place than we found it in terms of training practitioners and training employers."

-Program Staff

The University of Pittsburgh oversees the VT RETAIN data coordinating center, which manages the evaluation data and reviews program data to support continuous quality improvement (CQI) efforts. The director of the data coordinating center oversees the CQI team, which also includes the director of the VT RETAIN development center, project director, health care lead, and referral and enrollment lead. The CQI team meets weekly, and at the time of the interviews, it was focused on how to improve outreach to and enrollment of workers in opportunity zones.

4. Coordination of program partners

Program staff described delays in making decisions across partners. For example, processes like requesting approval for expenses or deciding the layout of the learning platform were time-consuming. Program staff also described initial challenges with clarifying roles and reporting structures and communicating across different professional backgrounds. Program staff noted the value of having a project administrator at the lead agency and grant program manager contracted by the training and development partner with 100 percent of their time dedicated to VT RETAIN to help manage coordination across partners.

To improve coordination of activities across partners, VT RETAIN organized program staff into several workgroups with different charters such as marketing, RTW coordination, and training. Workgroups track progress on implementation milestones and report monthly to the executive committee. The executive committee meetings include the workgroup leads, the directors of all four VT RETAIN centers, the lead RTW coordinator, project administrator, and grant program manager. The executive committee meets biweekly to make programmatic decisions based on feedback from the workgroups. The directors of the four centers meet as a smaller group on the off-weeks. Program leaders and staff noted that the workgroups and monthly reporting processes helped address the complexity of coordinating activities across partners and drew on the insights of professionally diverse subject matter experts.

VT RETAIN also gathers an advisory board comprised of representatives from VT RETAIN's main partners monthly. Program leaders noted that this provides an opportunity for them to solicit expert input when making programmatic decisions.

C. The program environment surrounding VT RETAIN

1. Employment and policy environment

In Vermont, 31.2 percent of working-age people with disabilities were employed in 2020, lower than the national average of 37 percent (Exhibit VII.2). Vermont has a low unemployment rate of 2.2 percent, which program staff suggested facilitates entry into the workforce. According to program staff, VT RETAIN enrollees often have physically intensive jobs in industries like quarry mining, trucking, construction, and agriculture. Program staff described how social needs like transportation, Internet

access, housing, and cell service are common barriers to returning to work. As noted in the needs assessment, poor mental health is reportedly a significant barrier for people in Vermont who are trying to return to work. Staff described little support for mental health services and long wait lists for providers in Vermont.

Exhibit VII.2. RETAIN program environment in Vermont

Economic indicators	Vermont	United States
Unemployment rate (June 2022)[a] (%)	2.2	3.6
Employment rate among working-age people without disabilities (2020)[b] (%)	79.1	75
Employment rate among working-age people with disabilities (2020)[b] (%)	31.2	37.0

[a] U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2022.

[b] Institute on Disability/University Center for Excellence in Disability, University of New Hampshire, Annual Disability Statistics Compendium.

RETAIN = Retaining Employment and Talent After Injury/Illness Network.

2. COVID-19 pandemic

The COVID-19 vaccination rate in Vermont is 81.1 percent, which is higher than the 66.6 percent vaccination rate nationwide.[48]

Program leaders and staff noted that the COVID-19 pandemic significantly delayed participating primary care practices' efforts to implement screening, because practices experienced staffing shortages and focused on COVID-19 testing and treatment. Program staff noted that the pandemic stressed the VT RETAIN program team and partners.

"There's a lot of providers with burnout and so sometimes it's hard to be asking for just one more thing."

-Program Staff

According to program staff, the pandemic has in some ways improved work opportunities for VT RETAIN enrollees. It reduced the labor market supply and prompted employers to increase wages, focus on retention, and offer flexibility to meet workers' needs. For example, the increased prevalence and acceptance of teleworking during the pandemic provided opportunities for workers in need of remote work accommodations.

D. VT RETAIN's enrollment was delayed but is expected to increase as participating primary care practices implement screening

VT RETAIN referrals come from patient self-screening at participating primary care practices, which each practice implements differently, depending on the practice's unique workflows. A summary of the recruitment and enrollment process is included in Appendix E (Exhibit E.2).

1. Early enrollment outcomes

During the first four months of enrollment (March 2022 – June 2022), VT RETAIN enrolled 38 workers (20 control and 18 treatment enrollees), 2 percent of their goal of enrolling 2,040 workers. The first four

[48] Johns Hopkins University Coronavirus Resource Center, 2022. Available at https://coronavirus.jhu.edu/region. Accessed May 3, 2022.

months of enrollment represent about 15 percent of the total enrollment period. About 47 percent of all enrollees were treatment enrollees and 53 percent were control enrollees (Appendix E, Exhibit E.3).

2. Referral sources

The primary source of referrals is patient self-screening at participating primary care practices. The pre-screener identifies patients who may be eligible for VT RETAIN. Practices alert patients to the screening questions by placing VT RETAIN promotional materials (such as posters, postcards, and fact sheets) in waiting and exam rooms. VT RETAIN provides materials for practices to implement the pre-screening method of their choosing, including collecting paper self-screeners, prompting patients to pre-screen on tablets, or including QR codes on promotional materials to allow patients to access the pre-screener on their phones. VT RETAIN has provided some practices with tablets to facilitate self-screening and is considering providing kiosks to practices. VT RETAIN does not have EMR agreements with practices that would allow recruitment staff to use the EMR to review patient medical records for a more active screening approach.

VT RETAIN does not have EMR agreements with practices that would allow recruitment staff to use the EMR to review patient medical records for a more active screening approach.

Program staff described the administrative burden of paper pre-screening forms relative to electronic forms. When patients self-screen using paper forms, recruitment staff do not receive automatic notifications of a positive screen. Instead, a practice staff member must fax completed paper screeners to the recruitment staff who manually enter the information into their data system. Program staff described this as a cumbersome process. When patients self-screen through a tablet or QR code, VT RETAIN recruitment staff receive an automatic notification prompting them to contact the potentially eligible worker. Program staff reported that updating paper forms is more challenging than updating electronic forms. For example, program staff found that a substantial portion of pre-screened patients were retired or did not plan to work, so they added a question to the pre-screener to identify patients who are no longer in the workforce. Program staff were able to make this change quickly at practices that use electronic pre-screeners but were delayed in making the change in practices that use paper screeners.

Program leaders designed the self-screening process to limit the burden on practice staff and providers having to administer the screening to patients. Most enrollees complete the self-screener without the prompting or involvement of their provider. Program staff said that implementing new processes into primary care practices is always challenging due to limited resources and staffing, and this was made more challenging due to staff burnout and turnover during the pandemic. Some participating practices requested to delay their participation in VT RETAIN during the pandemic, though they were reportedly enthusiastic about the program. As of May 2022, nearly three-quarters of participating practices had implemented pre-screening into their workflows.

Program staff reported that screening (and later recruitment) processes are the same for the treatment and control practices. Primary care practices receive $500 for implementing the screening process and $30 per enrollee. Program staff noted that both treatment and control practices are more incentivized by access to VT RETAIN's educational and training resources and SAW/RTW rehabilitation expertise than the financial incentives. When communicating with practices, VT RETAIN program staff refer to treatment clinics as the "resources and coaching group" and control clinics as the "resource group" to emphasize the benefits of involvement in RETAIN regardless of random assignment. Program staff noted that they would like to explore whether uptake of screening differs between treatment and control clinics.

3. Outreach strategies

VT RETAIN conducts outreach to potential enrollees through participating primary care practices. Program staff (usually the health care lead) held an orientation meeting at practices to review outreach strategies and provide the practice with VT RETAIN promotional materials. Outreach strategies and promotional materials are the same for the treatment and control practices. After the orientation meeting, RTW coordinators regularly check in with participating practices to see if they need additional outreach support.

Program staff noted that developing relationships with practice staff and customizing promotional materials is helpful for engaging participating practices and is also time-intensive. VT RETAIN staff try to keep participating practices engaged by developing in-person relationships with practice staff when feasible and framing VT RETAIN as a helpful resource for medical providers. Program staff noted that RTW coordinators generally interact with practice administrators and front desk staff; they are hoping to build more relationships with the medical providers and clinical support staff who are more familiar with their patients' needs and could refer a patient to VT RETAIN. Program staff were considering developing a newsletter for practices to highlight ways other practices have implemented screening and patient outreach.

Program staff described developing a VT RETAIN webpage on the VDOL website where medical providers, employers, and workers could access VT RETAIN information, including educational materials and training opportunities. Program staff hope that the VT RETAIN webpage will provide an opportunity to address confusion about how VT RETAIN is not a worker's compensation program, though it's housed in the Workers' Compensation Division. Program staff reported delays in launching the VT RETAIN webpage and limitations in the functionality of the State's website.

4. Strategies for recruiting underserved populations

To support efforts to recruit and enroll underserved populations, VT RETAIN uses results from the needs assessment and receives guidance on diversity, equity, and inclusion from the Vermont Director of Racial Equity. VT RETAIN also recruited FQHCs, free clinics, and primary care practices in opportunity zones to reach underserved populations in both rural and urban areas. Program staff ask practices about the populations they serve so they can provide 508-compliant screeners, outreach materials, and enrollment forms in languages spoken by their patients. Recruitment staff also have access to interpreter services to make recruitment calls.

Program staff noted that equity-focused recruitment efforts are time- and resource-intensive for both program staff and under-resourced practices, which creates a tension between focusing on equity while meeting enrollment targets. In addition, program staff have found that many patients at FQHCs and free clinics are ineligible for the program because of their lack of a Social Security number due to their immigration status, chronic disabilities, and because they receive SSA benefits.

5. Screening for eligibility

The VT RETAIN program enrolls workers diagnosed with an injury or illness that is limiting or could limit their ability to stay at work or return to work. This includes work-limiting injury or illness that occurred or flared in the past six months. Individuals must be employed or actively looking for a job, age 18 or older, and living or working in Vermont, or be willing to include Vermont in a job search. The program excludes people who previously received care coordination services from VT RETAIN, have no

projected work capacity, are currently applying for or receiving SSA benefits, or have an active substance use disorder that is untreated. No more than 20 percent of enrollees can have been out of work for more than 12 weeks due to illness or injury.

Program staff reported that the exclusion criteria are difficult for recruitment staff to interpret, and the DOL and Mathematica have at times provided conflicting guidance on how to interpret them. They noted that the eligibility criteria are difficult for potential enrollees to understand, which adds time during recruitment calls.

Program staff described several challenges with the eligibility criteria that are limiting enrollment. A requirement that enrollees have a Social Security number effectively limits the enrollment of patients who immigrated to the United States without documentation. Program staff also explained that the 12-week exclusion criteria are based on the recovery trajectory for musculoskeletal injuries and do not reflect a realistic recovery window for people with other health issues, such as COVID-19 or mental illness. This excludes about 40 percent of potential enrollees pre-screened as potentially eligible. Program staff were grappling with developing a systematic process for identifying exceptions to the 12-week exclusion criteria. At this time, VT RETAIN makes exceptions on a case-by-case basis, according to their assessment of worker's potential to benefit from the program.

"It's very frustrating to market ourselves as a return-to-work project and not be able to provide services to people who are clearly in a window to return-to-work and it interferes with our credibility a little bit and then we're just not enrolling as many participants because a lot are ineligible."

Program Staff

6. Recruitment

Recruitment staff contact patients from participating practices who pre-screen as potentially eligible to confirm their eligibility for VT RETAIN and interest in enrolling. Program staff described a challenge that only about half of the potential enrollees answer recruitment calls, and most have little knowledge of VT RETAIN when they receive the recruitment call. To overcome this challenge, recruitment staff attempt to contact potential enrollees in multiple ways (phone, text, and email) so that they do not dismiss the calls as scams or telemarketing. Program staff also arranged for VT RETAIN to appear as the stated caller on caller identification. Program staff noted that they are continuously identifying additional ways to improve recruitment, including shortening the recruitment script.

Program staff reported that once recruitment staff connect with potential enrollees on the telephone, about 85 percent of eligible patients enroll. Program staff attributed this success to the recruitment staffs' interpersonal skills. The recruitment staff were racially diverse, have disabilities themselves, and all had patient care backgrounds, reportedly enabling them to effectively connect with patients.

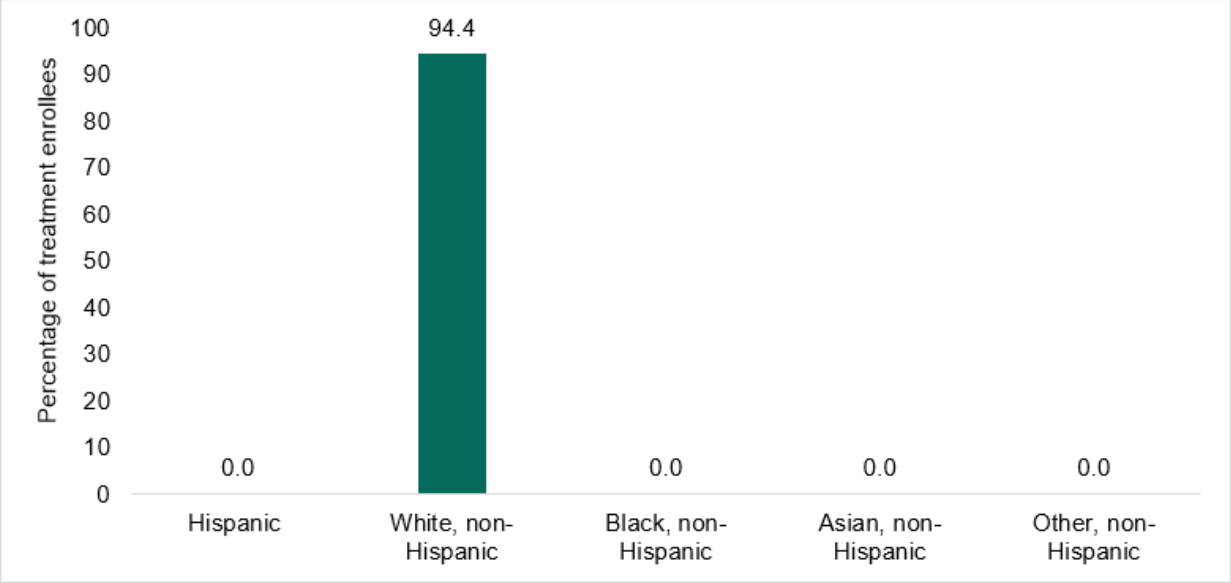
Once a patient agrees to enroll in VT RETAIN, the recruitment staff reviews the enrollment forms and informs the patient if they are assigned to the treatment or control group, which is based on study assignment of the participant's practice. Recruitment staff collect enrollees' informed consent to participate in the study, permitting the sharing of their information. Control enrollees receive a VT RETAIN resource packet developed in Phase 1, which includes 10 tips for staying at work with an injury or illness and a list of resources for services related to general employment; employment specific to physical, mental health, and substance use conditions; social needs; and self-care. Treatment enrollees receive the VT RETAIN resource packet and RTW coordination services from a designated RTW

coordinator. Recruitment staff send a letter to medical providers informing them when one of their patients is enrolled in VT RETAIN, screened at-risk for a work disability but was ineligible for RETAIN, or was not contacted.

7. Treatment enrollee characteristics

We used enrollment data submitted by VT RETAIN to assess demographic characteristics for the 18 people who enrolled in the first four months of the enrollment period (March 2022 to June 2022) and were assigned to the treatment group (Appendix E, Exhibit E.4). Most treatment enrollees were male (61 percent). The average age of the treatment enrollees was 48.[49] Most were White, non-Hispanic (94 percent) (Exhibit VII.3). Many treatment enrollees had at least a high school diploma, GED, or certificate of completion (61 percent), and most preferred to speak English (94 percent).

Exhibit VII.3. Race and ethnicity characteristics of treatment enrollees (percentage)



Source: VT RETAIN enrollment data through June 30, 2022.

Note: We suppressed the "More than one race" category to avoid disclosing information about particular people, which is why the percentages do not add to 100.

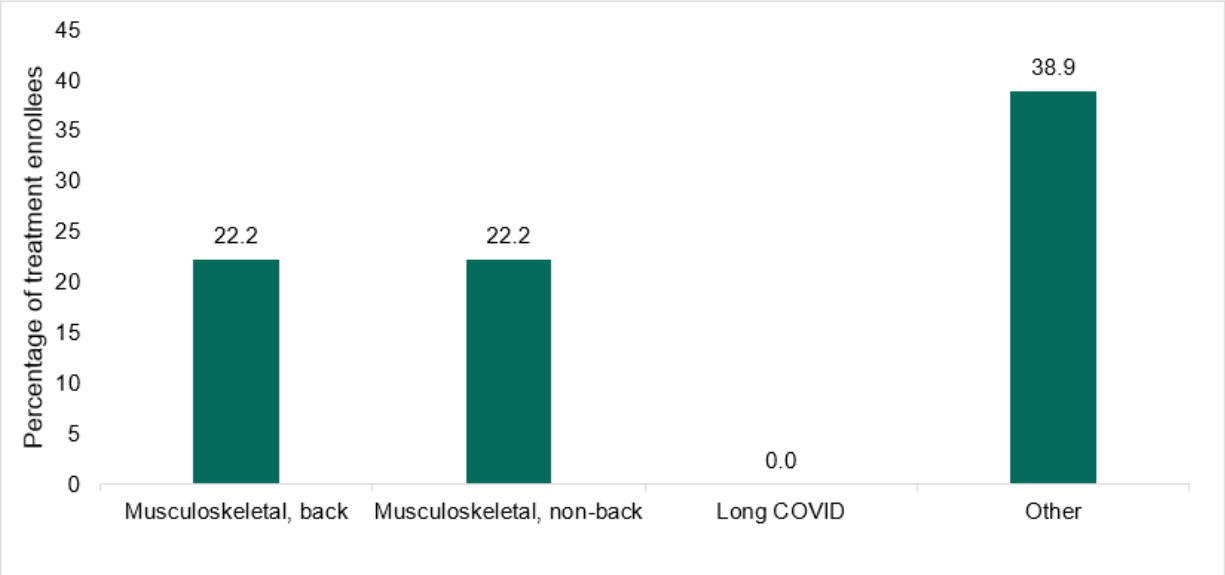
VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

We also used the enrollment data submitted by VT RETAIN to assess illness and injury characteristics for the 18 treatment enrollees described above (Appendix E, Exhibit E.5). Just under half of treatment enrollees reported a primary diagnosis of a musculoskeletal condition (44 percent), with 22 percent reporting a non-back musculoskeletal condition and 22 percent reporting a musculoskeletal back condition (Exhibit VII.4). The remainder reported a primary diagnosis of a condition that did not fall under the four RETAIN primary diagnosis categories (39 percent). VT RETAIN enrolls people with work- and non-work-related conditions, and 44 percent of enrollees reported their injury or illness was work related. People with a pre-existing or new condition are eligible, and, for VT RETAIN, half of treatment enrollees reported their illness or injury was a new condition at the time of enrollment (50

[49] We are only able to report the percentage of treatment enrollees who were ages 40 to 44 years and 50 to 54 years due to small numbers and the need to avoid disclosing information about particular people.

percent). Treatment enrollees had an average of 80 days between the onset of their primary diagnosis (either a new condition or an exacerbation of a chronic condition) and their enrollment in VT RETAIN.

Exhibit VII.4. Primary diagnosis characteristics of treatment enrollees (percentage)



Source: VT RETAIN enrollment data through June 30, 2022.

Note: We suppressed the "Mental" category to avoid disclosing information about particular people, which is why the percentages do not add to 100 percent.

Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental; and Other. These groupings build on previous studies of return to work among injured or ill workers. We include the mapping of ICD-10 codes into these categories in Appendix E, Exhibit 5.

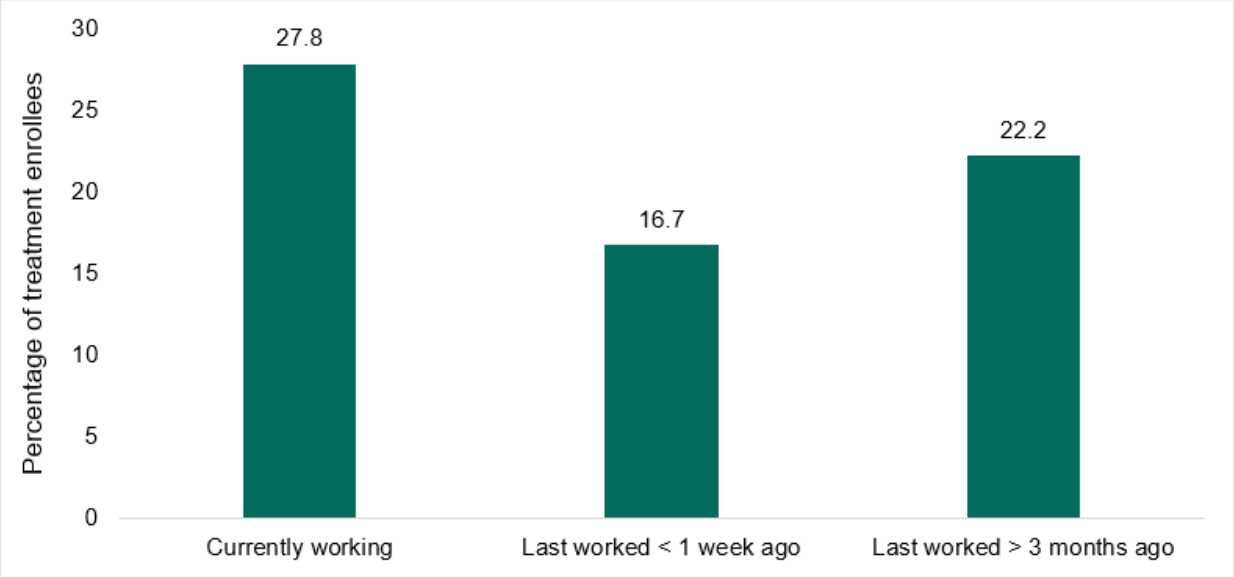
ICD = International Classification of Diseases; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data submitted by VT RETAIN to assess employment characteristics for the 18 treatment enrollees described above (Appendix E, Exhibit E.6). All RETAIN programs must enroll workers who are employed or in the labor force, and, for VT RETAIN, many treatment enrollees were employed (61 percent). A little less than half of treatment enrollees were currently working or worked within one week of enrollment (45 percent). (Exhibit VII.5). On average, treatment enrollees were employed full time (40 hours per week) before onset of injury or illness. Half of treatment enrollees worked at their current job for less than a year (50 percent) and almost 30 percent worked at their job for more than five years.[50] Over the last year, many treatment enrollees earned at least $1,000 per month (78 percent). The highest proportion of treatment enrollees were classified as holding a service occupation (28 percent) (Exhibit VII.6). Other treatment enrollees held occupations in management, professional or

[50] We suppressed the percentage of treatment enrollees who last worked at their current job from one to five years due to small numbers and the need to avoid disclosing information about particular people.

related (22 percent); production, transportation, or material moving; and natural resources, construction, or maintenance.[51]

Exhibit VII.5. Length of time since last worked before enrollment for treatment enrollees (percentage)



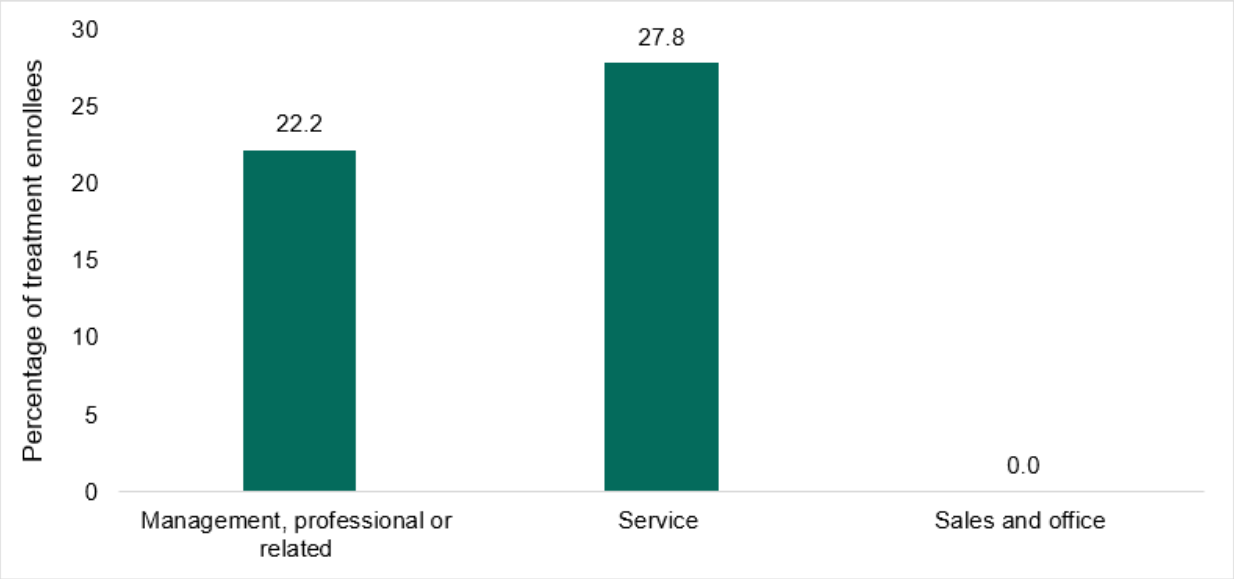
Source: VT RETAIN enrollment data through June 30, 2022.

Note: We suppressed the categories of "Last worked 1 to 4 weeks ago" and “Last worked 1 to 3 months ago” to avoid disclosing information about particular people, which is why the percentages do not add to 100 percent.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

[51] We suppressed the percentages of treatment enrollees who held occupations in production, transportation, or material moving and natural resources, construction, or maintenance due to small numbers and the need to avoid disclosing information about particular people.

Exhibit VII.6. Occupational classification of pre-injury/illness job for treatment enrollees (percentage)



Source: VT RETAIN enrollment data through June 30, 2022.

Note: Suppressed "Natural resources, construction, or maintenance " and “Production, transportation, or material moving” to avoid disclosing information about particular people. Therefore, percentages do not add to 100 percent.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

We also used enrollment data to compare treatment enrollees’ characteristics with control enrollees’ characteristics. As outlined in the Evaluation Design Report, we expected treatment and control enrollees to have similar baseline characteristics because each state has a random assignment design (Berk et al. 2021). We found no significant differences between treatment and control enrollees in the characteristics we examined (Appendix E, Exhibits E.4, E.5, and E.6).

E. VT RETAIN has limited experience providing RTW coordination services given the low number of enrollees

At the time of the interviews in May 2022, VT RETAIN had limited experience delivering the RTW coordination services and other RTW services as planned in the VT RETAIN program model. Early activities centered around developing materials, trainings, and relationships with partners. Staff described initial implementation challenges related to delivering services while developing and refining resources such as the training and development program and integrating equity and sustainability efforts into program implementation. In addition, VT RETAIN noted the time intensiveness of responding to federal reporting and evaluation requirements.

1. Medical provider services

The health care lead and program staff deliver in-person and live online trainings to participating primary care practices to increase awareness of VT RETAIN, the importance of work for health, the screening tool, and implementing screening into practice workflows. VT RETAIN is working to create on-demand versions of trainings for the learning platform so that practices can complete trainings at any time.

Through its training and development program, VT RETAIN aims to increase the number of providers trained in SAW/RTW best practices throughout Vermont. According to program staff, any Vermont provider (including treatment and control providers) will be able to access trainings and educational resources on the learning platform and VT RETAIN webpage. The development center is currently creating these materials and trainings based on feedback they received from providers in the needs assessment and conversations with practice staff. The training and development program is also awarding grants to train multidisciplinary teams in rehabilitation team assessments and award community Functional Restoration Program grants for medical providers in Vermont to receive training in functional restoration. Through these training grants, VT RETAIN aims to increase the availability of rehabilitation services. RTW coordinators will refer treatment enrollees to these providers and multidisciplinary teams.

Exhibit VII.7. VT RETAIN medical provider services

Program component	Definition
Training medical providers	• Providers in Vermont access live and on-demand online trainings and educational materials on SAW/RTW topics. • Providers in Vermont can apply for a grant to train a team of providers in multidisciplinary medical rehabilitation. • Providers in Vermont can apply for community Functional Restoration Programs grants to receive training on functional restoration.
Incentivizing medical providers	• Providers in Vermont receive continuing medical education credits for completing VT RETAIN training.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; SAW = stay at work.

Through conversations with participating practices, program staff learned that providers are eager for information about referrals, resources, and best practices to support patients, as well as opportunities to receive CME credits. Program staff noted that providers are extremely busy and were more likely to attend in-person VT RETAIN trainings if the program provided food and the health care lead conducted the trainings on-site.

2. RTW coordination services

Each treatment enrollee receives SAW/RTW coordination support from a designated RTW coordinator (Exhibit VII.8). Most RTW coordinators work for the clinical coordinating center full time. A few RTW coordinators are case managers embedded in treatment practices who spend about 20 percent of their time on VT RETAIN. The pros and cons of embedding case managers is not yet clear, though program staff noted that it may help with communication between VT RETAIN and participating practices.

During intake, RTW coordinators assess the treatment enrollee's barriers to staying at or returning to work and work goals, develop an RTW plan, connect the enrollee with resources to address social needs, and provide referrals to resources like Vocational Rehabilitation and American Job Centers. RTW coordinators can also communicate with the enrollee's employer, medical providers, and others as needed to coordinate their SAW/RTW needs. Services end once the enrollee achieves the goals documented in their RTW plan or after six months, whichever comes first. Given the low enrollment numbers to date, program staff had limited experience providing RTW coordination services as planned under the VT RETAIN program model.

Exhibit VII.8. VT RETAIN RTW coordination services

Program component	Definition
Coordinating RTW services	• RTW coordinators conduct an intake assessment of SAW/RTW barriers and work goals. • RTW coordinators work with the treatment enrollee to develop an RTW plan. • RTW coordinators use the RTW Services Inventory to match the treatment enrollee with services • RTW coordinators engage with the RTW expert team for support in providing appropriate RTW services and referrals. • Treatment enrollees may use a mobile health system to self-report their progress to their RTW coordinator and medical provider. The RTW coordinators may use the app to communicate and share resources with treatment enrollees.
Communicating among parties involved in RTW plan	• RTW coordinators use a strength-based approach to encourage treatment enrollees to communicate directly with their medical provider, employer, and other RTW professionals. • If given permission, the RTW coordinators communicate about the RTW plan, progress, and accommodations with treatment enrollees' medical provider and employer.
Monitoring treatment enrollee progress	• RTW coordinators primarily monitor progress through check-ins with enrollees, during which they record enrollees' medical and employment information, case notes, provider notes, and results of assessments. • RTW coordinators will be able to use a mobile health system as an additional tool to monitor enrollee progress.

Note: * Interactive Mobile Health & Rehabilitation (iMHere) is a care coordination mobile health system. VT RETAIN created a state specific version of the system called LINK~VT.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; SAW = stay at work.

RTW coordinators have access to many recorded trainings. Examples of training topics include Vermont's economic conditions, how to use the state's electronic data capture system, and resources available to RTW coordinators to support treatment enrollees. Program staff reported that while the amount of training content available can be overwhelming, the information presented by subject matter experts and colleagues in the recorded trainings is valuable. Through the trainings, RTW coordinators learn about the clinical experts like physical therapists and occupational therapists with whom they can consult on their cases. Program staff reported that RTW coordinators find it helpful to have short, recorded trainings they can view on their own time.

a. Coordinating RTW services

Program data submitted by VT RETAIN indicate that 61 percent of treatment enrollees received VT RETAIN services, including RTW coordination services or other RTW services (Exhibit VII.9). Just over half of all treatment enrollees (56 percent) had an established RTW plan. An average of 14.9 days elapsed between enrollment to establishment of a RTW plan for treatment enrollees in VT RETAIN. As of the end of June 2022, there are treatment enrollees who had exited VT RETAIN, but we suppressed these data to avoid disclosing information about particular people.

Exhibit VII.9. Treatment enrollees' receipt of RTW coordination services

Service received	Percentage of treatment enrollees
Received any services beyond enrollment [a]	61.1
Established an RTW plan	55.6
Time elapsed between enrollment and established RTW plan (days)	14.9
Exited VT RETAIN	†
Duration of services (if exited)	†
Referred to services beyond VT RETAIN after six months	0.0

Source: VT RETAIN service use data through June 30,2022.

† Suppressed to avoid disclosing information about particular people.

[a] Any services beyond enrollment includes establishing an RTW plan or receiving an employment service such as job search assistance, training, on-site job analysis, ergonomic assessment, or transitional work opportunities

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network; RTW = return to work

Program leaders and staff described RTW coordinators' diverse backgrounds and interpersonal skills as facilitating RTW coordination service delivery. RTW coordinators benefit from a mix of expertise on the team, including nursing, employment services, and social work. RTW coordinators attend weekly case review meetings and consult with one another regularly for advice on their cases. Program leaders and staff reported that the RTW coordinators are empathetic, collaborative, and dedicated. Program staff report that during initial conversations with their RTW coordinators, treatment enrollees seem relieved to have an advocate who is ready to listen and assist them.

In addition to consulting with each other, RTW coordinators will be able to reference an RTW coordinator manual and RTW Services Inventory to assist enrollees. VT RETAIN is currently updating the manual and inventory, a comprehensive catalog of SAW/RTW services and resources throughout the state. RTW coordinators have not yet had much experience using the tool to match treatment enrollees to resources.

For support on their cases, RTW coordinators can consult a multidisciplinary RTW Expert Team. The team includes specialists in occupational and environmental medicine, physical medicine and rehabilitation, pain medicine, physical therapy, occupational therapy, social work, nursing, behavioral health, substance use disorders, VR, employment assistance, financial and benefits counseling, employment and workers' compensation law, and employment and career services.

RTW coordinators report using a variety of strategies to address the challenge of keeping treatment enrollees engaged and responsive. They set up regular meetings with treatment enrollees, text meeting reminders, and check in after treatment enrollees' health care appointments. Program staff are hopeful that VT RETAIN's newly developed mobile health system will streamline communication and improve engagement. Participants will use the app to message their RTW coordinator, complete functional assessments, receive resources from their RTW coordinator, schedule appointments, and document goals and progress.

VT RETAIN has employed several strategies to facilitate participant connections with RTW coordinators when access to technology and the Internet is a challenge. If a participant does not have a smartphone, VT RETAIN is able to lend them a phone for the duration of their participation. VT RETAIN is developing relationships with Northern Vermont University and libraries to help treatment enrollees in rural areas access Internet connectivity and resources through libraries and telehealth portals.

b. Communication among parties involved in enrollee return to work

In Exhibit VII.10, we list the possible avenues of communication among RTW coordinators and others involved in enrollees' RTW plans and list the percentage of reported communications that occurred in each, as reported in the program data submitted by VT RETAIN. Based on service use data from VT RETAIN, RTW coordinators communicated with a medical provider at least once for 17 percent of treatment enrollees, and no RTW coordinators communicated with a workforce professional at least once (0 percent). We suppressed the data reflecting RTW coordinators communication with an employer to because the numbers were small enough to identify treatment enrollees.

Exhibit VII.10. Percentage of treatment enrollees whose RTW coordinator communicated with others involved in their return to work

Communication among parties involved in treatment enrollees' return to work	Percentage of treatment enrollees
Treatment enrollee's RTW coordinator communicated with employer at least once	†
Treatment enrollee's RTW coordinator communicated with medical provider at least once	16.7
Treatment enrollee's RTW coordinator communicated with workforce professional at least once	0.0

Source: VT RETAIN service use data through June 30, 2022

† Suppressed to avoid disclosing information about particular people.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

RTW coordinators solicit authorization forms from treatment enrollees that give them permission to speak with the treatment enrollees' employer, provider, or workforce professional about their RTW/SAW plan and progress. Because of low enrollment, RTW coordinators had limited experience soliciting authorization forms and connecting with employers, providers, and others to implement workplace-based interventions. Program staff reported that some providers are not aware of VT RETAIN until they have a patient enroll in the program; staff would like to increase provider awareness of the program.

c. Monitoring treatment enrollee progress

RTW coordinators primarily monitor treatment enrollee progress through regular check-ins with enrollees. RTW coordinators use an electronic data capture system developed by VT RETAIN to record enrollees' medical and employment information and store case notes, forms, provider notes, and results of assessments. Program staff anticipate that as treatment enrollees start using the mobile health system to complete functional assessments, the mobile app will be an additional tool to monitor treatment enrollee progress.

3. Other RTW services

As of May 2022, RTW coordinators had limited experience supporting workplace-based interventions or referring treatment enrollees to retraining and rehabilitation services as planned under the VT RETAIN program model (Exhibit VII.11). The RTW coordinator can work with the treatment enrollee to create a workplace intervention plan, and the RTW expert team can provide assessment and consultation on workplace accommodations.

Exhibit VII.11. VT RETAIN other RTW services

Program component	Definition
Supporting workplace-based interventions	• RTW coordinators help treatment enrollees and their employers create a personalized workplace intervention plan. • RTW expert team provides assessment and consultation on workplace accommodations in complex cases. • Vermont employers access trainings and educational materials on the learning platform. • Vermont employers apply for grants to receive training and certification in supporting workers with mental health and substance use challenges.
Retraining or rehabilitating enrollees	• RTW coordinators refer treatment enrollees to employment counselors at American Job Centers. • RTW coordinators make referrals to the VT Division of Vocational Rehabilitation. • RTW coordinators make referrals to teams trained in multidisciplinary medical rehabilitation through the training grants.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

a. Supporting workplace-based interventions

VT RETAIN's training and development program is expanding and creating new in-person and online employer trainings and educational materials to post on the publicly available learning platform. Content covers topics such as creating functional job descriptions that help clinicians understand their patient's job responsibilities. Vermont employers can also apply for a grant to be certified as a workplace that supports employees with mental health and substance use challenges. VT RETAIN started creating mental health resources in response to the impact of the COVID-19 pandemic and requests from employers. VT RETAIN is currently determining a strategy to inform employers about the learning platform and grants.

Service use data from VT RETAIN indicated that 50 percent of treatment enrollees received a workplace accommodation (Exhibit VII.12). VT RETAIN did not report on-site job analysis or ergonomic assessments for its treatment enrollees.

Exhibit VII.12. Treatment enrollees' receipt of workplace-based interventions

VT RETAIN service use and data outcomes	Percentage
Received on-site job analysis	0.0
Received ergonomic assessment	0.0
Received workplace accommodation	50.0

Source: VT RETAIN service use data through June 30, 2022

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

b. Retraining or rehabilitating enrollees

Service use data from VT RETAIN indicated that about 17 percent of treatment enrollees received job search services (Exhibit VII.13). In addition to referring treatment enrollees to American Job Centers, RTW coordinators anticipate referring treatment enrollees to the VT Division of Vocational Rehabilitation for retraining and rehabilitation resources that complement VT RETAIN. Staff note that a

benefit to connecting VT RETAIN treatment enrollees with VR early is that VR can provide support after the end of a worker's six months in VT RETAIN.

Exhibit VII.13. Treatment enrollees' receipt of retraining or rehabilitation services

VT RETAIN service use and data outcomes	Percentage
Received job search services	16.7
Received training services	0.0
Participated in a transitional work opportunity[a]	0.0
Received other employment services	0.0

Source: VT RETAIN service use data through June 30, 2022.

[a] A transitional work opportunity is a time-limited job at a new employer during an enrollee's recovery period to meet the enrollee's work restrictions until their employer is able to provide work accommodations.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

In complex cases, RTW coordinators may refer treatment enrollees to teams trained in multidisciplinary medical rehabilitation through the training grants. These rehabilitation teams can provide in-person assessment and consultation on barriers to employment. As of the site visit in June, none of the VT RETAIN treatment enrollees had received this assessment.

4. Service contrast

Access to an RTW coordinator is the most significant service contrast between what was available to the VT RETAIN treatment and control groups. Control enrollees received the VT RETAIN resource packet developed in Phase 1, including information about publicly available resources like American Job Centers, VT JobLink,[52] and VR. VR provided vocational counseling from case managers, assistive technology support, and job placement and retention services. Though the RTW coordinators refer treatment enrollees to the same WFD services that are available to others, the RTW coordinators can help ensure the treatment enrollees are connected with the right services and coordinate follow up. WFD services. VT RETAIN has yet to hire VDOL workforce development staff to provide services specific to VT RETAIN.

RTW coordinators reported coaching treatment enrollees to self-advocate and communicate with their medical providers and employers directly, instead of having the RTW coordinator as an intermediary. Control enrollees do not receive coaching or have RTW coordinators communicate on their behalf.

5. Collecting and reporting program data

VT RETAIN developed an electronic data capture system to collect data for the evaluation and monitor enrollee progress. Recruitment staff use the system to enter enrolment information. RTW coordinators use the system to record enrollees' medical and employment information, house forms, and capture case notes. Program staff are overwhelmingly positive about the user-friendly system and appreciate administrators' responsiveness to requests for improvements. For example, the team added an automatic notification when a new patient completes an electronic pre-screener.

Staff report that the process for submitting data for the evaluation is going smoothly overall, in large part due to its automation efforts. One challenge is making sure DOL, Mathematica, and VT RETAIN staff

[52] Vermont JobLink is an online job-matching and labor market information system.

are on the same page regarding data definitions. Changes in reporting requirements and new guidance from DOL and Mathematica have resulted in additional work, though the state reports that Mathematica has been helpful in clarifying data issues as needed.

F. Areas for continued monitoring and evaluation technical assistance

Our analysis of the interview data collected in May 2022 and enrollment data collected through June 30, 2022, raised several issues that could affect the impact evaluation. The Mathematica team will continue to monitor these issues and provide evaluation technical assistance as needed.

- VT RETAIN's enrollment is low relative to the goal of 2,040 enrollees. As of June 30, 2022, VT RETAIN reached 1.8 percent of the target, while it is 15 percent through its enrollment period. Enrollment will need to increase significantly to have enough enrollees to draw conclusions about the impact of the program on the treatment enrollees. Mathematica will monitor enrollment and screening, particularly in control practices which theoretically could have less incentive for promoting screening.
- VT RETAIN is challenged with developing a system for deciding which workers to enroll who have been out of work for more than 12 weeks due to illness or injury. Mathematica or other RETAIN contractors will provide technical assistance to VT RETAIN, as needed, to help determine and apply appropriate criteria.
- VT RETAIN has not yet hired workforce development staff to focus on employer relations and the integration of employment services into VT RETAIN as planned under the program model. Though the same workforce services are available to both the treatment and control enrollees, the treatment group may benefit from RTW coordinators connecting them with appropriate workforce development services.

VIII. Conclusion

Our assessment of states' experiences with the initial implementation of the RETAIN programs shows the progress states have made and the complexities of the demonstrations. In Exhibit VIII.1, we summarize the issues emerging across states for which we recommend continued monitoring because they could affect the impact evaluation. Most notably, enrollment was low in four of the five states. In addition, three states were slow to engage medical providers in training. Three states revealed potential concerns with the service contrast and ensuring that treatment enrollees received intervention services that were distinct from the services received by control enrollees.

Exhibit VIII.1. Summary of issues that emerged across states' RETAIN programs

Area for continued monitoring	RETAINWOR*KS*	RETAIN Kentucky	Minnesota RETAIN	Ohio RETAIN	Vermont RETAIN
Slow enrollment	X	X	X		X
Limited medical provider training	X	X	X		
Reduced service contrast		X		X	X
Challenges applying eligibility criteria		X			X
Challenges reporting program data	X				

In the upcoming process analysis report, we will assess the full implementation of the RETAIN demonstration. The process analysis report will provide a summative assessment of recruitment, enrollment, service provision, and adherence to the planned program model after the states have had time to fully implement their RETAIN programs. We will use qualitative data from interviews with enrollees (fall 2023) and the second round of site visits (spring 2023) to assess barriers and facilitators that emerged across states to influence recruitment, enrollment, and implementation of the RETAIN programs. Quantitative data from the program performance data and RETAIN medical provider survey will enable us to assess providers' implementation of RETAIN program components and enrollees' receipt of RETAIN services. We will submit a draft process analysis report to SSA in December 2024.

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References

Ben-Shalom, Y., and H. Burak. "The Case for Public Investment in Stay-at-Work/Return-to-Work Programs." SAW/RTW Issue Brief. Washington, DC: Mathematica Policy Research, 2016.

Ben-Shalom, Y., J. Christian, and D. Stapleton. "Investing in Job Retention for Workers with Medical Conditions." In *Investing in America's Workforce: Improving Outcomes for Workers and Employers*, edited by C.V. Horn, H. Prince, S. Andreason, and T. Greene. Kalamazoo, MI: The Upjohn Press, 2018.

Berk, J., A. Patnaik, R. Keith, T. Olszuk, D. Wittenburg, Y. Ben-Shalom, and J. Bologna. "Evaluation Design for the Retaining Employment and Talent After Injury/Illness Network (RETAIN) Demonstration." Report submitted to the Social Security Administration. Princeton, NJ: Mathematica, December 8, 2021.

Bourbonniere, M. and D. Mann. "Benefit Duration and Return to Work Outcomes in Short Term Disability Insurance Programs: Evidence from Temporary Disability Insurance Program." *Journal of Occupational Rehabilitation*, vol. 28, 2018, pp. 597–609.

Contreary, K., Y. Ben-Shalom, and B. Gifford. "Using Predictive Analytics for Early Identification of Short-Term Disability Claimants Who Exhaust Their Benefits." *Journal of Occupational Rehabilitation,* vol. 28, 2018, pp. 584–596.

Franklin, G.M., T. Wickizer, N.B. Coe, and D. Fulton-Kehoe. "Workers' Compensation: Poor Quality Healthcare and the Growing Disability Problem in the United States." *American Journal of Industrial Medicine*, vol. 58, no. 3, 2015, pp. 245–251.

Hollenbeck, K. "Promoting Retention or Reemployment of Workers After a Significant Injury or Illness." Washington, DC: Mathematica Policy Research, 2015.

Michaud, P.C., E.M. Crimmins, and M.D. Hurd. "The Effect of Job Loss on Health: Evidence from Biomarkers." *Labour Economics*, vol. 41, August 2016, pp. 194–203.

Neuhauser, F., Y. Ben-Shalom, and D. Stapleton. "Early Identification of Potential SSDI Entrants in California: The Predictive Value of State Disability Insurance and Workers' Compensation Claims." *Journal of Occupational Rehabilitation*, vol. 28, 2018, pp. 574-583.

Schimmel, J., and D.C. Stapleton. "Earnings Loss and Income Replacement for Older Workers after the Onset of a Work-Limiting Health Condition." *Inquiry: A Journal of Medical Care Organization, Provision and Financing*, vol. 49, no. 2, 2012, pp. 141–163.

Wickizer, T.M., G.M. Franklin, R.D. Mootz, D. Fulton-Kehoe, R. Plaeger-Brockway, D. Drylie, J.A. Turner, and T. Smith-Weller. "A Communitywide Intervention to Improve Outcomes and Reduce Disability Among Injured Workers in Washington State." *Milbank Quarterly*, vol. 82, no. 3, September 2004, pp. 547–567.

Wickizer, T.M., G. Franklin, D. Fulton-Kehoe, J. Gluck, R. Mootz, T. Smith-Weller, and R. Plaeger-Brockway. "Improving Quality, Preventing Disability and Reducing Costs in Workers' Compensation Healthcare: A Population-Based Intervention Study." *Medical Care*, vol. 49, no. 12, December 2011, pp. 1105–1111.

Wickizer, T.M., G.M. Franklin, and D. Fulton-Kehoe. "Innovations in Occupational Health Care Delivery Can Prevent Entry into Permanent Disability: 8-Year Follow-up of the Washington State Centers for Occupational Health and Education." *Medical Care*, vol. 56, no. 12, December 2018, pp. 1018–1123.

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Appendix A:

Background Information and Supplemental Exhibits for Chapter III

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This appendix contains supplemental exhibits for Chapter III. These exhibits include information about RETAINWOR*KS* program partners (Exhibit A.1), the recruitment and enrollment process (Exhibit A.2), enrollment outcomes (Exhibit A.3), and enrollee characteristics (Exhibits A.4, A.5, and A.6).

Exhibit A.1. RETAINWOR*KS* program partners

Partner entity	Role in RETAINWOR*KS*	Leadership team	Phase I partner
Kansas Department of Commerce	Lead agency for RETAINWOR*KS* across the five workforce development areas in Kansas. Leads data collection and data sharing in support of the evaluation.	Yes	Yes
Healthcare partners			
Ascension Via Christi	Lead health care partner – Area IV. Health care partner in Areas I, II, and V. Recruits and trains medical providers, provides RTW coordination services to treatment enrollees.	Yes	Yes
Stormont Vail Healthcare, Inc.	Health care partner – Areas II and V. Will recruit and train medical providers, provide RTW coordination services to treatment enrollees.	No	No
University of Kansas Medical Center	Health care partner – Area III. Will recruit and train medical providers, provide RTW coordination services to treatment enrollees.	No	No
Workforce partners			
Workforce Alliance of South Central Kansas	Lead Local Workforce Development Board – Area IV. Recruits potential enrollees, conducts employer outreach, provides workforce coordination services to treatment enrollees.	Yes	Yes
Kansas WorkforceONE	Local Workforce Development Board – Area I. Will recruit patients, conduct employer outreach, provide workforce coordination services to treatment enrollees.	No	Yes
Heartland Works, Inc.	Local Workforce Development Board – Area II. Will recruit patients, conduct employer outreach, provide workforce coordination services to treatment enrollees.	Yes	No
Workforce Partnership	Local Workforce Partner – Area III. Will recruit patients, conduct employer outreach, provide workforce coordination services to treatment enrollees.	No	Yes
Southeast KANSASWORKS	Local Workforce Development Board – Area II. Will recruit patients, conduct employer outreach, provide workforce coordination services to treatment enrollees.	No	Yes
Leadership team partners			
Kansas Department of Health and Environment	Provides state-level coordination to connect partners with resources needed for implementation.	Yes	Yes
Kansas State Workforce Development Board	Participates in leadership team.	Yes	No
Kansas Vocational Rehabilitation Services	Provides additional assessment and rehabilitation services to referred enrollees.	Yes	No
Kansas Business Group on Health	Contributes to strategy. Provides employer perspective and assists in developing messaging and employer education. Distributes RETAINWOR*KS* outreach materials to members.	Yes	No

Partner entity	Role in RETAINWOR*KS*	Leadership team	Phase I partner
Kansas Society for Human Resource Management	Contributes to strategy. Provides employer perspective and assists in developing messaging and employer education. Promotes RETAINWOR*KS* to its members.	Yes	No
Mid-American Coalition on Health Care	Contributes to strategy. Provides employer perspective and assists in developing messaging and employer education.	Yes	No
University of Kansas Medical Center Research Institute	State partner on the leadership team. Aids with medical data collection and provider training. Provides REDCap to the RETAINWOR*KS* program pending a subrecipient contract.	Yes	No
Kansas Department of Administration	Will refer eligible employees to RETAINWOR*KS*.	Yes	Yes

Source: Application for Phase 2 of RETAIN, quarterly progress reports, and virtual site visit interviews.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Exhibit A.2. RETAINWOR*KS* recruitment and enrollment process

Element of recruitment process	Description
Referral source	All interested workers must see a medical provider willing to complete a referral form. However, the referral can begin at another source: 1. Medical provider refers patient. 2. Local workforce center refers client. 3. Worker self-refers.
Recruitment	• RTW coordinator receives completed referral form and contacts the potential enrollee to review eligibility, complete informed consent form, and alert them they will be contacted by an employment counselor.
Enrollment	• RTW coordinator contacts potential enrollee to review informed consent requirements and address any concerns that might prevent enrollment.
Randomization	• Employment counselors contacts the potential enrollee to collect documentation confirming eligibility. • Employment counselor enters enrollee's information into Confirmit to determine placement in either the treatment or control group and enters the required information from part 1 of the baseline survey into Confirmit. • The Confirmit software randomizes enrollees to either the treatment or control group.
Initial engagement into the program	• Eligible individuals receive $50 incentive for completing enrollment paperwork.
Discharge from program	• RTW coordinators close the treatment enrollee's case after 6 months or after the treatment enrollee has returned to work for 8 weeks without restrictions.

Source: Application for Phase 2 of RETAIN, quarterly progress reports, and virtual site visit interviews.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Exhibit A.3. Initial enrollment outcomes in RETAINWOR*KS*

Enrollment indicator	Outcome
Enrollment target	4,000 (2,000 treatment enrollees and 2,000 control enrollees)
Number of treatment enrollees	18
Number of control enrollees	21
Percentage of total enrollment target met	1.0

Source: RETAINWOR*KS* enrollment data through June 30, 2022.

RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

Exhibit A.4. Demographic characteristics of RETAINWORKS treatment and control enrollees

Characteristic	All (A)	Treatment (B)	Control (C)	`Difference (B – C)	*p*-value
Total number of enrollees	39.0	18.0	21.0	-3.0	
Sex					0.399
Male	46.2	38.9	52.4	-13.5	
Female	53.8	61.1	47.6	13.5	
Age					0.463
18–29 years	†	†	†	†	
30–39 years	25.6	38.9	14.3	24.6	
40–44 years	17.9	16.7	19.0	-2.3	
45–49 years	†	†	†	†	
50–54 years	†	†	†	†	
55–59 years	†	†	†	†	
60+ years	†	†	†	†	
Mean (years)	39.3	40.9	37.9	3.0	0.422
Race/ethnicity					0.150
Hispanic	7.7	16.7	0.0	16.7	
White, non-Hispanic	66.7	55.6	76.2	-20.6	
Black, non-Hispanic	17.9	16.7	19.0	-2.3	
Asian, non-Hispanic	0.0	0.0	0.0	0.0	
More than one race	†	†	†	†	
Other, non-Hispanic	0.0	0.0	0.0	0.0	
No response	†	†	†	†	
Preferred language					n.a.
English	100.0	100.0	100.0	0.0	
Spanish	0.0	0.0	0.0	0.0	
Other	0.0	0.0	0.0	0.0	
Education					0.099
Less than a high school diploma	†	†	†	†	
High school diploma, GED, or certificate of completion	59.0	50.0	66.7	-16.7	

Characteristic	All (A)	Treatment (B)	Control (C)	`Difference (B – C)	*p*-value
Occupational certificate/license or 2-year college degree	†	†	†	†	
4-year college degree or post-graduate degree	†	†	†	†	

Source: RETAINWOR*KS* enrollment data through June 30, 2022.

† Suppressed to avoid disclosing information about particular individuals.

n.a. = not applicable; RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

Exhibit A.5. Illness or injury characteristics of RETAINWOR*KS* treatment and control enrollees (percentages)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	39.0	18.0	21.0	-3.0	
Primary diagnosis (based on ICD codes)					0.326
Musculoskeletal, back	†	†	†	†	
Musculoskeletal, non-back [a]	82.1	72.2	90.5	-18.3	
Mental	0.0	0.0	0.0	0.0	
Long COVID	0.0	0.0	0.0	0.0	
Other	†	†	†	†	
New condition	89.7	83.3	95.2	-11.9	0.233
Injury or illness result of accident	89.7	88.9	90.5	-1.6	0.875
Work-related injury or illness	56.4	61.1	52.4	8.7	0.595
Injury or illness part of a workers' compensation claim	48.7	50.0	47.6	2.4	0.886
Time between injury or illness and enrollment [b]	84.9	37.8	122.5	-84.7	0.107

Source: RETAINWOR*KS* enrollment data through June 30, 2022.

Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental; and Other. The table that follows provides our mapping of ICD-10 codes into the five primary diagnosis categories. These groupings build on previous studies of return to work among injured or ill workers, such as Contreary et al. (2018), Neuhauser et al. (2018), and Bourbeonniere and Mann (2018).

Primary diagnosis category	ICD-10 codes
Musculoskeletal, back	M40-M54; M96.1; M99.2-M99.7; S13.4; S23.3; S30-S39.
Musculoskeletal, non-back	M00-M36; M60-M95; M96 (except M96.1); M97; M99 (except M99.2-M99.7); S00-S29 (except S13.4;S23.3); S40-S99
Mental	Codes beginning with F
Long COVID	Z86.16; U09
Other	ICD10 codes that do not fall under any of the four categories above

[a] Musculoskeletal, non-back includes conditions that affect the joints, bones, muscles, or multiple body areas or systems.

[b] A small percentage of enrollees enrolled before the date of injury. These enrollees were not included when calculating the average time between illness or injury and enrollment.

ICD = International Classification of Diseases; RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

Exhibit A.6. Employment characteristics of RETAINWOR*KS* treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	39.0	18.0	21.0	-3.0	
Recent work history					
Employment status					0.871
Not employed	†	†	†	†	
Self-employed	0.0	0.0	0.0	0.0	
Employed	89.7	88.9	90.5	-1.6	
Length of time since last worked					0.833
Currently working	35.9	27.8	42.9	-15.1	
Last worked < 1 week ago	17.9	16.7	19.0	-2.3	
Last worked 1 to 4 weeks ago	25.6	33.3	19.0	14.3	
Last worked 1 to 3 months ago	15.4	16.7	14.3	2.4	
Last worked > 3 months ago	†	†	†	†	
Hours per week usually worked before injury/illness	40.5	40.6	40.5	0.1	0.979
Tenure at current job					0.624
Less than 6 months	25.6	22.2	28.6	-6.4	
6 months to 1 year	20.5	22.2	19.0	3.2	
1 to 2 years	25.6	16.7	33.3	-16.6	
2 to 5 years	†	†	†	†	
5+ years	20.5	27.8	14.3	13.5	
Occupational classification of pre-injury or illness job					0.206
Management, professional, or related[a]	†	†	†	†	
Service[b]	38.5	27.8	47.6	-19.8	
Sales and office[c]	†	†	†	†	
Natural resources, construction, or maintenance[d]	0.0	0.0	0.0	0.0	
Production, transportation, or material moving	35.9	38.9	33.3	5.6	
Economic well-being					
Job paid at least $1,000 per month	71.8	77.8	66.7	11.1	0.455
Receipt of income other than earnings:					
SSDI or SSI	0.0	0.0	0.0	0.0	n.a.
Veterans' benefits	0.0	0.0	0.0	0.0	n.a.
Workers' compensation	†	†	†	†	0.471
Employer-provided or other private disability insurance	†	†	†	†	0.123
Other public programs	†	†	†	†	0.123
Applied for or received SSDI or SSI in the past three years	†	†	†	†	0.188

Source: RETAINWOR*KS* enrollment data through June 30, 2022.

[a] The occupational classification of management, professional, or related occupation includes the following job functions: management, business, and financial operations; computer and mathematical; architecture and engineering; life, physical, and social science; community and social service; legal; educational instruction and library; arts; design; entertainment, sports, and media occupations; health care practitioners; and technical.

[b] The occupational classification of service includes the following job functions: health care support; protective; food preparation and serving related; building and grounds cleaning and maintenance occupations; and personal care and service.

[c] The occupational classification of sales and office includes the following job functions: sales and related; office and administrative support.

[d] The occupational classification of natural resources, construction, or maintenance includes the following job functions: farming, forestry, and fishing; construction and extraction; installation, maintenance, and repair.

[†]Suppressed to avoid disclosing information about particular individuals.

n.a. = not applicable; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income; RETAINWOR*KS* = Kansas Retaining Employment and Talent After Injury/Illness Network.

Appendix B:

Background Information and Supplemental Exhibits for Chapter IV

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This appendix contains supplemental exhibits for Chapter IV. These exhibits include information about RETAIN KY program partners (Exhibit B.1), the recruitment and enrollment process (Exhibit B.2), enrollment outcomes (Exhibit B.3), and enrollee characteristics (Exhibits B.4, B.5, and B.6).

Exhibit B.1. RETAIN KY program partners

Partner entity	Role in RETAIN KY	Leadership team	Phase I partner
Kentucky Department of Workforce Investment, Office of Vocational Rehabilitation	Lead agency for RETAIN KY. Develops strategies and partnerships with medical providers, employers, and community resources. Responsible for expanding RETAIN KY services statewide.	Yes	Yes
University of Kentucky (UK) Healthcare	Lead health care partner. Recruits patients and staff for enrollment.	Yes	Yes
University of Louisville	Lead health care partner. Recruits patients and staff for enrollment.	Yes	Yes
The University of Kentucky, Human Development Institute and UK Healthcare	Lead workforce partner. Trains medical providers, provides RETAIN KY services to treatment enrollees. Employs RTW coordinators, assistive technology specialist, and peer mentor.	Yes	Yes
Council of State Governments	Supports project needs through technical assistance, project management, social media and marketing, legislative outreach.	Yes	Yes
Local Workforce Development Boards	Recruits employers and workers for referrals, reviews employer training materials, and helps identify Inclusive Worker Health Leadership Network members.	Yes	Yes
Kentucky Workforce Innovation Board	Helps market RETAIN KY to regional workforce development boards through presentations and networking opportunities.	Yes	Yes
Kentucky Hospital Association	Promotes awareness of RETAIN KY through training and presentation opportunities.	Yes	Yes
Kentucky Department for Public Health	Reviews medical provider and employer training materials, supports recruitment of RETAIN enrollees.	Yes	Yes
Mental Health Consultant	Provides subject matter expertise in mental health and substance use disorders to inform the RETAIN KY intervention, provides relevant trainings and professional learning opportunities for RETAIN stakeholders.	Yes	Yes
Workforce Development Consultant	Recruits employers and workers for referrals, serves as a subject matter expert for employer training materials.	Yes	Yes
Kentucky Chamber of Commerce	Provides opportunities for employer trainings.	No	Yes
Unite Us	Community organization. Recruits enrollees.	No	Yes
CHI St Joseph Medical Group	Health care partner. Recruits and refers enrollees.	No	Yes
University of Louisville Health & Frazier Rehabilitation Institute	Health care partner. Recruits and refers enrollees.	No	Yes

Source: Application for Phase 2 of RETAIN, quarterly progress reports, and virtual site visit interviews.
CMDS = case management data system; RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; UK = University of Kentucky.

Exhibit B.2. RETAIN KY recruitment and enrollment process

Element of recruitment process	Description
Referral source	RETAIN KY has 11 sources of referrals. Eight RETAIN KY staff conduct outreach to referral sources to increase awareness of RETAIN and prompt referrals. These referral sources then educate workers experiencing an illness or injury about RETAIN and, if the worker permits, they make a referral or they encourage the worker to self-refer to RETAIN. 1. University of Louisville Physical Medicine and Rehabilitation physicians group refers staff and patients. 2. UK Healthcare refers staff and patients. 3. Frazier Rehabilitation Institute refers staff and patients. 4. CHI Saint Joseph Medical Group refers staff and patients. 5. KY Workforce Innovation Board refers employers and workers. 6. Local Workforce Development Boards refers employers and workers. 7. KY Chamber of Commerce refers employers and workers. 8. Unite Us, an online platform for referrals from community agencies, refers clients. 9. Absence management organization refers workers. 10. Employer refers workers. 11. Worker self-refers.
Recruitment	• Intake coordinator contacts potentially eligible worker within 24 hours of receiving the referral to confirm eligibility and introduce the RETAIN program. • Workers found ineligible can receive additional resources and a referral to the Office of Vocational Rehabilitation.
Enrollment	• The intake coordinator reads a two-page document aloud to obtain informed consent from eligible workers. • Enrollee provides verbal consent to enroll, which the intake coordinator records in the CMDS. The intake coordinator offers to send a copy of the consent document. • Enrollee completes baseline surveys 1 and 2.
Randomization	• Intake coordinator enters the required information from part 1 of the baseline survey into Confirmit. • The Confirmit software randomizes enrollees to either the treatment or control group. • Intake coordinator identifies an RTW coordinator based on whether the enrollee is assigned to the treatment group or control group. RTW coordinators work exclusively with treatment enrollees or control enrollees (to provide limited services).
Initial engagement into the program	• Treatment enrollee receives a packet of information electronically, including a form to consent to release information to medical providers, employers, and others. The form includes a separate consent for each type of release. • Treatment enrollee selects and signs consents to release information, which allows RTW coordinator to communicate with other stakeholders.
Discharge from program	• RTW coordinators close the treatment enrollee's case after 6 months, or after the treatment enrollee has returned to work and the RTW plan is completed. RTW coordinators refer enrollees who need longer-term services to vocational rehabilitation. • RTW coordinators close the control enrollee's case after 2 meetings over 2 weeks. • There are no incentives for treatment or control enrollees when they exit from the program.

Source: Application for Phase 2 of RETAIN, quarterly progress reports, and virtual site visit interviews.

CMDS = case management data system; RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; RTW = return to work; UK = University of Kentucky.

Exhibit B.3. Initial enrollment outcomes in RETAIN KY

Enrollment indicator	Outcome
Enrollment target	3,200 (1,600 treatment enrollees and 1,600 control enrollees)
Number of treatment enrollees	101
Number of control enrollees	99
Percentage of total enrollment target met	6.3

Source: RETAIN KY enrollment data through June 30, 2022.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Exhibit B.4. Demographic characteristics of RETAIN KY treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	200	101	99	2	
Sex					0.776
Male	49.5	50.5	48.5	2.0	
Female	50.5	49.5	51.5	-2.0	
Age					0.685
18–29 years	13.0	13.9	12.1	1.8	
30–39 years	26.0	24.8	27.3	-2.5	
40–44 years	12.0	8.9	15.2	-6.3	
45–49 years	9.5	11.9	7.1	4.8	
50–54 years	13.0	11.9	14.1	-2.2	
55–59 years	10.0	9.9	10.1	-0.2	
60+ years	16.5	18.8	14.1	4.7	
Mean (years)	44.5	44.9	44.2	0.7	0.721
Race and ethnicity					0.997
Hispanic	6.0	5.9	6.1	-0.2	
White, non-Hispanic	58.5	57.4	59.6	-2.2	
Black, non-Hispanic	22.0	22.8	21.2	1.6	
Asian, non-Hispanic	†	†	†	†	
More than one race	8.5	7.9	9.1	-1.2	
Other, non-Hispanic	†	0.0	†	†	
No response	1.5	3.0	0.0	3.0	
Preferred language					0.519
English	98.0	97.0	99.0	-2.0	
Spanish	†	†	†	†	
Other	†	†	†	†	
Education					0.536
Less than a high school diploma	7.5	7.9	7.1	0.8	
High school diploma, GED or certificate of completion	57.0	53.5	60.6	-7.1	

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Occupational certificate/license or 2-year college degree	22.0	21.8	22.2	-0.4	
4-year college degree or post-graduate degree	13.5	16.8	10.1	6.7	

Source: RETAIN KY enrollment data through June 30, 2022.

† Suppressed to avoid disclosing information about particular individuals.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Exhibit B.5. Illness or injury characteristics of RETAIN KY treatment and control enrollees (percentages)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	200	101	99	2	
Primary diagnosis (based on ICD codes)					0.061
Musculoskeletal, back	9.0	12.9	5.1	7.8	
Musculoskeletal, non-back [a]	13.5	11.9	15.2	-3.3	
Mental	21.5	26.7	16.2	10.5	
Long COVID	†	†	†	†	
Other	54.0	47.5	60.6	-13.1	
New condition	53.0	49.5	56.6	-7.1	0.320
Injury or illness as a result of an accident	19.5	17.8	21.2	-3.4	0.547
Work-related injury or illness	3.5	4.0	3.0	1.0	0.722
Injury or illness part of a workers' compensation claim	4.5	4.0	5.1	-1.1	0.712
Time between injury or illness and enrollment[b]	2032.7	1868.1	2200.6	-332.5	0.529

Source: RETAIN KY enrollment data through June 30, 2022.

Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental; and Other. The table below provides our mapping of ICD-10 codes into the five primary diagnosis categories. These groupings build on previous studies of return to work among injured or ill workers, such as Contreary et al. 2018, Neuhauser et al. 2018, and Bourbeonniere and Mann, 2018.

Primary diagnosis category	ICD-10 codes
Musculoskeletal, back	M40-M54; M96.1; M99.2-M99.7; S13.4; S23.3; S30-S39.
Musculoskeletal, non-back	M00-M36; M60-M95; M96 (except M96.1); M97; M99 (except M99.2-M99.7); S00-S29 (except S13.4;S23.3); S40-S99
Mental	Codes beginning with F
Long COVID	Z86.16; U09
Other	ICD10 codes that do not fall under any of the four categories above

[a] Musculoskeletal, non-back includes conditions that affect the joints, bones, muscles, or multiple body areas or systems.

[b] A small percentage of enrollees enrolled before the date of injury. These enrollees were not included when calculating the average time between illness or injury and enrollment.

† Suppressed to avoid disclosing information about particular people.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network.

Exhibit B.6. Employment characteristics of RETAIN KY treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	200	101	99	2	
Recent work history					
Employment status					0.654
Not employed	29.5	28.7	30.3	-1.6	
Self-employed	†	†	†	†	
Employed	67.5	69.3	65.7	3.6	
Length of time since last worked					0.822
Currently working	10.0	10.9	9.1	1.8	
Last worked < 1 week ago	20.0	18.8	21.2	-2.4	
Last worked 1 to 4 weeks ago	15.0	13.9	16.2	-2.3	
Last worked 1 to 3 months ago	29.5	27.7	31.3	-3.6	
Last worked > 3 months ago	25.5	28.7	22.2	6.5	
Hours per week usually worked before injury or illness	38	36.9	39.2	-2.3	0.148
Tenure at current or more recent job					0.813
Less than 6 months	30.5	31.7	29.3	2.4	
6 months to 1 year	11.5	9.9	13.1	-3.2	
1 to 2 years	8.5	9.9	7.1	2.8	
2 to 5 years	22	19.8	24.2	-4.4	
5+ years	27.5	28.7	26.3	2.4	
Occupational classification of pre-injury or illness job					0.913
Management, professional, or related[a]	24.5	25.7	23.2	2.5	
Service[b]	34.5	34.7	34.3	0.4	
Sales and office[c]	8.0	8.9	7.1	1.8	
Natural resources, construction, or maintenance[d]	4.5	5.0	4.0	1.0	
Production, transportation, or material moving	28.5	25.7	31.3	-5.6	
Economic well-being					
Job paid at least $1,000 per month	78.0	74.3	81.8	-7.5	0.199
Receipt of income other than earnings:					
SSDI or SSI	8.0	8.9	7.1	1.8	0.634
Veterans' benefits	†	†	†	†	0.396
Workers' compensation	†	†	†	†	0.314
Employer-provided or other private disability insurance	19.0	17.8	20.2	-2.4	0.670
Other public programs	12.5	13.9	11.1	2.8	0.559
Applied for or received SSDI or SSI in the past three years	19.5	22.8	16.2	6.6	0.240

Source: RETAIN KY enrollment data through June 30, 2022.

† Suppressed to avoid disclosing information about particular people.

[a] The occupational classification of management, professional, or related occupation includes the following job functions: management, business, and financial operations; computer and mathematical; architecture and engineering; life, physical, and social science; community and social service; legal; educational instruction and library; arts; design; entertainment, sports, and media occupations; health care practitioners; and technical.

[b] The occupational classification of service includes the following job functions: health care support; protective; food preparation and serving related; building and grounds cleaning and maintenance occupations; and personal care and service.

[c] The occupational classification of sales and office includes the following job functions: sales and related; office and administrative support.

[d] The occupational classification of natural resources, construction, or maintenance includes the following job functions: farming, forestry, and fishing; construction and extraction; installation, maintenance, and repair.

RETAIN KY = Kentucky Retaining Employment and Talent After Injury/Illness Network; n.a. = not applicable; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

Appendix C:

Background Information and Supplemental Exhibits for Chapter V

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This appendix contains supplemental exhibits for Chapter V. These exhibits include information about MN RETAIN program partners (Exhibit C.1), the recruitment and enrollment process (Exhibit C.2), enrollment outcomes (Exhibit C.3), and enrollee characteristics (Exhibits C.4, C.5, and C.6).

Exhibit C.1. MN RETAIN program partners

Partner entity	Role in MN RETAIN	Leadership team	Phase I partner
Department of Employment and Economic Development	Lead agency for MN RETAIN. Oversees data collection and reporting, coordinates partners, manages continuous quality improvement efforts, and leads the recruitment of employers and underrepresented communities across the state.	Yes	Yes
Mayo Clinic	Lead health care partner. Provides expertise in occupational medicine and oversight of (1) recruiting, engaging, and training medical providers; (2) recruiting, training, and managing RTW coordinators; and (3) screening, recruiting, and enrolling eligible workers.	Yes	Yes
Workforce Development, Inc.	Lead workforce partner. Provides job transition services and financial support to treatment enrollees.	Yes	Yes
Crest View Senior Care	Employer champion. Supports work accommodations for injured or ill employees, makes the program a visible resource for employees, provides transitional work opportunities to treatment enrollees, and promotes MN RETAIN among other employers.	Yes	Yes
Minnesota Department of Health	Provides statewide occupational health data to support MN RETAIN.	Yes	Yes
Minnesota Department of Labor and Industry	Provides guidance to ensure that MN RETAIN does not impede workers' compensation law.	Yes	Yes

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Exhibit C.2. MN RETAIN recruitment and enrollment process

Element of recruitment process	Description
Referral source	MN RETAIN has several referral sources. MN RETAIN leaders and program staff are working to conduct outreach to referral sources so these referral sources will educate workers experiencing an illness or injury about MN RETAIN; if the worker permits, they make a referral or they encourage the worker to self-refer to RETAIN. 1. Mayo Clinic recruitment staff review social determinants of health report and an orthopedics report to identify patients who may be potentially eligible for MN RETAIN. 2. Medical provider refers patient. 3. Employer refers workers. 4. Worker self refers.
Recruitment	• Recruitment staff reaches out to the potentially eligible worker to confirm eligibility, introduce the RETAIN program, and determine interest in the program.
Enrollment	• RTW coordinator reviews and obtains informed consent from eligible worker and coordinates completion of the MN RETAIN application and all necessary forms, including the baseline survey. • RTW coordinator provides the enrollee with a $100 incentive upon the completion of enrollment.
Randomization	• RTW coordinator enters the required information from part 1 of the baseline survey into Confirmit. • The Confirmit software randomizes enrollees to either the treatment or control group. • RTW coordinator provides control enrollee with a list of resources to help them return to work and tells them they can access the resources independently. The control enrollees do not receive any further support from MN RETAIN.
Initial engagement in the program	• RTW coordinator notifies the treatment enrollee's medical provider via email that their patient enrolled in the MN RETAIN study. This communication includes a summary of the MN RETAIN program, the MN RETAIN brochure, and encouragement for the provider to complete the MN RETAIN educational training modules on the website. • During the enrollment call, the RTW coordinator engages with the treatment enrollee to develop an individualized employment plan and RTW or SAW plan.
Discharge from program	• RTW coordinator works with the treatment enrollee until they return to work without restrictions, return to work with permanent restrictions, or meet the criteria for completing the program. RTW coordinator does not work with the treatment enrollee for more than six months. • RTW coordinator provides the treatment enrollee with a $100 incentive at the conclusion of their enrollment in MN RETAIN.

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; RTW = return to work, SAW = stay at work.

Exhibit C.3. Initial enrollment outcomes in MN RETAIN

Enrollment indicator	Outcome
Enrollment target	3,200 (1,600 treatment enrollees and 1,600 control enrollees)
Number of treatment enrollees	142
Number of control enrollees	141
Percentage of total enrollment target met	8.8

Source: MN RETAIN enrollment data through June 30, 2022.
MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

Exhibit C.4. Demographic characteristics of MN RETAIN treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	283	142	141	1	
Sex					0.707
Male	43.5	41.5	45.4	-3.9	
Female	55.5	57.0	53.9	3.1	
Age					0.164
18–29 years	17.0	12.0	22.0	-10.0	
30–39 years	21.2	26.1	16.3	9.8	
40–44 years	11.7	10.6	12.8	-2.2	
45–49 years	13.4	14.1	12.8	1.3	
50–54 years	13.4	15.5	11.3	4.2	
55–59 years	11.3	9.9	12.8	-2.9	
60+ years	12.0	12.0	12.1	-0.1	
Mean (years)	43.4	44.0	42.9	1.1	0.472
Race and ethnicity					0.788
Hispanic	6.7	6.3	7.1	-0.8	
White, non-Hispanic	82.3	83.1	81.6	1.5	
Black, non-Hispanic	3.5	3.5	3.5	0.0	
Asian, non-Hispanic	2.1	2.1	2.1	0.0	
More than one race	4.2	2.8	5.7	-2.9	
Other, non-Hispanic	†	†	†	†	
No response	†	†	†	†	
Preferred language					0.848
English	97.5	97.2	97.9	-0.7	
Spanish	†	†	†	†	
Other	†	†	†	†	
Education					0.121
Less than a high school diploma	3.2	2.8	3.5	-0.7	
High school diploma, GED or certificate of completion	35	30.3	39.7	-9.4	

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Occupational certificate/license or 2-year college degree	33.6	40.1	27.0	13.1	
4-year college degree or post-graduate degree	28.3	26.8	29.8	-3.0	

Source: MN RETAIN enrollment data through June 30, 2022.

†Suppressed to avoid disclosing information about particular individuals.

MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

Exhibit C.5. Illness or injury characteristics of MN RETAIN treatment and control enrollees (percentages)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	283	142	141	1	
Primary diagnosis based on ICD-10 codes [a]					0.359
Musculoskeletal, back	5.7	8.5	2.8	5.7	
Musculoskeletal, non-back [b]	60.4	58.5	62.4	-3.9	
Mental	3.9	3.5	4.3	-0.8	
Long COVID	4.6	4.9	4.3	0.6	
Other	25.4	24.6	26.2	-1.6	
New condition	62.2	61.3	63.1	-1.8	0.749
Injury or illness as a result of accident	44.5	43.0	46.1	-3.1	0.596
Work-related injury or illness	10.6	12.7	8.5	4.2	0.257
Injury or illness as part of a workers' compensation claim	6.7	7.7	5.7	2.0	0.488
Time between injury or illness and enrollment (days) [c]	34.9	32.4	37.3	-4.9	0.422

Source: MN RETAIN enrollment data through June 30, 2022.

Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental; and Other. The table that follows provides our mapping of ICD-10 codes into the five primary diagnosis categories. These groupings build on previous studies of return to work among injured or ill workers, such as Contreary et al. (2018), Neuhauser et al. (2018), and Bourbeonniere and Mann (2018).

Primary diagnosis category	ICD-10 codes
Musculoskeletal, back	M40-M54; M96.1; M99.2-M99.7; S13.4; S23.3; S30-S39.
Musculoskeletal, non-back	M00-M36; M60-M95; M96 (except M96.1); M97; M99 (except M99.2-M99.7); S00-S29 (except S13.4;S23.3); S40-S99
Mental	Codes beginning with F
Long COVID	Z86.16; U09
Other	ICD10 codes that do not fall under any of the four categories above

[a] Minnesota's reporting process might affect the share of people in each impairment grouping. Instead of directly recording the primary ICD-10 code for each enrollee, Minnesota developed a drop-down menu of 25 impairment categories to select from (for example, Back, Hip, Knee, Cardiac, Stroke, Mental Health). For injuries or illnesses that do not fall into the specified categories, the Minnesota team entered the primary ICD-10 code. This process might lead to a different distribution of impairment groupings than recording the primary ICD-10 code for each enrollee. But because of the relatively broad impairment groupings we constructed, we expect any differences would be minimal.

[b] Musculoskeletal, non-back includes conditions that affect the joints, bones, muscles, or multiple body areas or systems.

[c] A small percentage of enrollees enrolled before the date of injury. These enrollees were not included when calculating the average time between illness or injury and enrollment.

ICD = International Classification of Diseases; MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network.

Exhibit C.6. Employment characteristics of MN RETAIN treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	**283**	**142**	**141**	1	
Recent work history					
Employment status					0.776
Not employed	7.4	8.5	6.4	2.1	
Self-employed	4.6	4.2	5.0	-0.8	
Employed	88.0	87.3	88.7	-1.4	
Length of time since last worked					0.879
Currently working	15.5	16.9	14.2	2.7	
Last worked < 1 week ago	15.5	14.1	17.0	-2.9	
Last worked 1 to 4 weeks ago	39.6	38.0	41.1	-3.1	
Last worked 1 to 3 months ago	26.1	27.5	24.8	2.7	
Last worked > 3 months ago	3.2	3.5	2.8	0.7	
Hours per week usually worked before injury or illness	39.6	40.7	38.5	2.2	0.129
Tenure at current or more recent job					0.287
Less than 6 months	14.1	14.1	14.2	-0.1	
6 months to 1 year	12.7	12.7	12.8	-0.1	
1 to 2 years	11.3	13.4	9.2	4.2	
2 to 5 years	21.9	16.9	27.0	-10.1	
5+ years	39.9	43.0	36.9	6.1	
Occupational classification of pre-injury or illness job					0.335
Management, professional, or related[a]	37.1	41.5	32.6	8.9	
Service[b]	28.6	28.2	29.1	-0.9	
Sales and office[c]	7.1	4.9	9.2	-4.3	
Natural resources, construction, or maintenance[d]	9.9	10.6	9.2	1.4	
Production, transportation, or material moving	17.3	14.8	19.9	-5.1	
Economic well-being					
Job paid at least $1,000 per month [e]	86.9	90.1	83.7	6.4	0.108
Receipt of income other than earnings:					
SSDI or SSI	0.0	0.0	0.0	0.0	N/A
Veteran's benefits	†	†	†	†	0.996
Workers' compensation	†	†	†	†	0.559
Employer-provided or other private disability insurance	16.3	13.4	19.1	-5.7	0.190
Other public programs	8.8	8.5	9.2	-0.7	0.820
Applied for or received SSDI or SSI in the past three years	3.2	2.1	4.3	-2.2	0.306

Source: MN RETAIN enrollment data through June 30, 2022.

[a] The occupational classification of management, professional, or related occupation includes the following job functions: management, business, and financial operations; computer and mathematical; architecture and engineering; life, physical, and social science; community and social service; legal; educational instruction and library; arts; design; entertainment, sports, and media occupations; health care practitioners; and technical.

[b] The occupational classification of service includes the following job functions: health care support; protective; food preparation and serving related; building and grounds cleaning and maintenance occupations; and personal care and service.

[c] The occupational classification of sales and office includes the following job functions: sales and related; office and administrative support.

[d] The occupational classification of natural resources, construction, or maintenance includes the following job functions: farming, forestry, and fishing; construction and extraction; installation, maintenance, and repair.

[e] We do not have accurate earnings information from MN RETAIN.

[†]Suppressed to avoid disclosing information about particular individuals.

N/A = not applicable; MN RETAIN = Minnesota Retaining Employment and Talent After Injury/Illness Network; SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

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Appendix D:

Background Information and Supplemental Exhibits for Chapter VI

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This appendix contains supplemental exhibits for Chapter VI. These exhibits include information about OH RETAIN program partners (Exhibit D.1), the recruitment and enrollment process (Exhibit D.2), enrollment outcomes (Exhibit D.3), and enrollees' characteristics (Exhibits D.4, D.5, and D.6).

Exhibit D.1. OH RETAIN program partners

Partner entity	Role in OH RETAIN	Leadership team	Phase I partner
Ohio Department of Job and Family Services	Lead agency for OH RETAIN. Responsible for grant oversight, federal reporting, communications, and convening of the partners.	Yes	Yes
Bon Secours Mercy Health	Lead health care partner. Responsible for (1) identifying, recruiting, and enrolling participants; (2) employing RTW coordinators and social workers, and coordinating SAW/RTW services; (3) recruiting and training medical providers; and (4) recruiting employers in coordination with the local workforce development boards.	Yes	Yes
Local Workforce Development Boards Areas 9, 12, 13, 17, and 18[53]	Lead workforce partners. Receive referrals of OH RETAIN treatment enrollees and provide local workforce development services through local OhioMeansJobs centers. Conduct outreach to employers in coordination with Mercy Health.	Yes	Yes (Areas #17 & 18); No (Areas #9, 12, 13)
Opportunities for Ohioans with Disabilities	Lead workforce partner for VR services. Receives referrals of OH RETAIN treatment enrollees and provides VR services as appropriate and allowable. Provides technical assistance on policies and practices for employers of enrollees who need work accommodations.	Yes	Yes
Ohio Bureau of Workers' Compensation	Provides guidance on occupational health and safety, SAW/RTW strategies, and best practices.	Yes	Yes
Ohio Governor's Office of Workforce Transformation	Oversees coordination of OH RETAIN with other state agencies and programs; aligns with the administration's policy priorities; and provides a referral network of industry associations, employer groups, and businesses.	Yes	Yes
Ohio Department of Health	Oversees the Institutional Review Board that evaluates and approves OH RETAIN treatment protocols and consent form language.	Yes	Yes
Ohio Department of Medicaid	Consults on best practices and guidance for health interventions as requested.	No	Yes
Ohio Department of Mental Health and Addiction Services	Consults on improving employer and employee connections to Ohio's mental health and addiction services system and coordinating access to treatment and prevention resources.	No	Yes

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work, SAW = stay at work; VR = vocational rehabilitation.

[53] Ohio's Local Workforce Area 9 encompasses the Toledo region, Areas 12 and 13 encompass the Cincinnati region, and Areas 17 and 18 encompass the Youngstown region.

Exhibit D.2. OH RETAIN recruitment and enrollment process

Element of recruitment process	Description
Referral source	OH RETAIN has three referral sources. OH RETAIN program staff identify most enrollees through EMR reports. Recruitment staff reach out to medical providers so they can educate patients experiencing an illness or injury about OH RETAIN and, if the patient permits, they make a referral. 1. EMR reports identify patients of the lead health care partner who meet initial eligibility criteria. 2. Medical provider refers patient. 3. Worker self-refers.
Recruitment	• If the patient is interested in participating in OH RETAIN, recruitment staff schedule an enrollment call and email OH RETAIN program and consent information to the patient. • Participating medical providers recommend OH RETAIN to their patients who may be eligible.
Enrollment	• RTW coordinator calls potential enrollees to review OH RETAIN program and consent information. • RTW coordinator obtains consent from potential enrollees by having them sign the consent via DocuSign software or mail the signed consent forms to the OH RETAIN office. • RTW coordinator sends a welcome letter to enrollees with a copy of the signed forms upon receipt of consent forms. • Program administrator issues a $100 incentive payment (a Target gift card) to enrollees after completing the enrollment process.
Randomization	• RTW coordinator enters the required information from part 1 of the baseline survey and uploads the enrollee's consent form into Confirmit. • The Confirmit software randomizes enrollees to the treatment or control groups. • RTW coordinator provides control enrollees with a packet of resources to help them return to work and tells them they can access the resources independently. Control enrollees do not receive any further support from OH RETAIN.
Initial engagement into the program	• During the enrollment call, the RTW coordinator establishes treatment goals with enrollees randomized to the treatment group. The RTW coordinator contacts the treatment enrollee's medical provider upon enrollment and the treatment enrollee's employer within three days to notify them of the worker's enrollment in OH RETAIN.
Discharge from program	• OH RETAIN enrollment ends when a treatment enrollee returns to work without difficulty, after completing six months of OH RETAIN services, or if an enrollee requests to end OH RETAIN services.

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

EMR = electronic medical record; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Exhibit D.3. Initial enrollment outcomes in OH RETAIN

Enrollment indicator	Outcome
Enrollment target	3,500 (1,750 treatment enrollees and 1,750 control enrollees)
Number of treatment enrollees	308
Number of control enrollees	304
Percentage of enrollment target met	17.5

Source: OH RETAIN enrollment data through June 30, 2022.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

Exhibit D.4. Demographic characteristics of OH RETAIN treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	612	308	304	4.0	
Sex					0.836
Male	37.9	38.3	37.5	0.8	
Female	62.1	61.7	62.5	-0.8	
Age					0.817
18–29 years	15.4	13.6	17.1	-3.5	
30–39 years	18.6	19.8	17.4	2.4	
40–44 years	11.4	11.0	11.8	-0.8	
45–49 years	12.6	13.6	11.5	2.1	
50–54 years	16.5	17.2	15.8	1.4	
55–59 years	14.9	14.9	14.8	0.1	
60+ years	10.6	9.7	11.5	-1.8	
Mean (years)	44.5	44.6	44.5	0.1	0.874
Race and ethnicity					0.153
Hispanic	5.9	5.5	6.3	-0.8	
White, non-Hispanic	73.5	74.4	72.7	1.7	
Black, non-Hispanic	17.8	16.9	18.8	-1.9	
Asian, non-Hispanic	†	†	†	†	
More than one race	1.6	1.0	2.3	-1.3	
Other, non-Hispanic	0.7	1.3	0.0	1.3	
No response	†	†	†	†	
Preferred language					0.247
English	98.9	99.4	98.4	1.0	
Spanish	†	†	†	†	
Other	0.0	0.0	0.0	0.0	

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Education					0.544
Less than a high school diploma	5.9	6.5	5.3	1.2	
High school diploma, GED or certificate of completion	41.3	42.5	40.1	2.4	
Occupational certificate/license or 2-year college degree	33.5	30.8	36.2	-5.4	
4-year college degree or post-graduate degree	19.3	20.1	18.4	1.7	

Source: OH RETAIN enrollment data through June 30, 2022.

† Suppressed to avoid disclosing information about particular individuals.

OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work.

Exhibit D.5. Illness or injury characteristics of OH RETAIN treatment and control enrollees (percentages)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	612	308	304	4.0	0.238
Primary diagnosis based on ICD-10 codes					
Musculoskeletal, back	11.9	13.6	10.2	3.4	
Musculoskeletal, non-back [a]	81.5	78.9	84.2	-5.3	
Mental	0.0	0.0	0.0	0.0	
Long COVID	0.0	0.0	0.0	0.0	
Other	6.5	7.5	5.6	1.9	
New condition	53.8	51.0	56.6	-5.6	0.165
Injury or illness as a result of an accident	62.4	61.0	63.8	-2.8	0.479
Work-related injury or illness	2.9	2.3	3.6	-1.3	0.325
Injury or illness as part of a workers' compensation claim	0.0	0.0	0.0	0.0	N/A
Time between injury or illness and enrollment (days) [b]	31.4	29.5	33.4	-3.9	0.176

Source: OH RETAIN enrollment data through June 30, 2022

Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental; and Other. The table that follows provides our mapping of ICD-10 codes into the five primary diagnosis categories. These groupings build on previous studies of return to work among injured or ill workers, such as Contreary et al. (2018), Neuhauser et al. (2018), and Bourbeonniere and Mann (2018).

Primary diagnosis category	ICD-10 codes
Musculoskeletal, back	M40-M54; M96.1; M99.2-M99.7; S13.4; S23.3; S30-S39.
Musculoskeletal, non-back	M00-M36; M60-M95; M96 (except M96.1); M97; M99 (except M99.2-M99.7); S00-S29 (except S13.4;S23.3); S40-S99
Mental	Codes beginning with F
Long COVID	Z86.16; U09
Other	ICD10 codes that do not fall under any of the four categories above

[a] Musculoskeletal, non-back includes conditions that affect the joints, bones, muscles, or multiple body areas or systems.

[b] A small percentage of enrollees enrolled before the date of injury. These enrollees were not included when calculating the average time between illness or injury and enrollment.

N/A = not applicable; ICD= International Classification of Diseases; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network.

Exhibit D.6. Employment characteristics of OH RETAIN treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	612	308	304	4.0	
Recent work history					
Employment status					0.287
Not employed	16.2	15.3	17.1	-1.8	
Self-employed	2.6	3.6	1.6	2.0	
Employed	81.2	81.2	81.3	-0.1	
Length of time since last worked					0.571
Currently working	21.6	23.1	20.1	3.0	
Last worked < 1 week ago	14.4	13.6	15.1	-1.5	
Last worked 1 to 4 weeks ago	31.9	33.8	29.9	3.9	
Last worked 1 to 3 months ago	17.3	15.9	18.8	-2.9	
Last worked > 3 months ago	14.9	13.6	16.1	-2.5	
Hours per week usually worked before injury or illness	39.8	39.9	39.8	0.1	0.853
Tenure at current job					0.816
Less than 6 months	19.1	18.8	19.4	-0.6	
6 months to 1 year	14.1	13.3	14.8	-1.5	
1 to 2 years	11.1	12.3	9.9	2.4	
2 to 5 years	17.0	17.9	16.1	1.8	
5+ years	38.7	37.7	39.8	-2.1	
Occupational classification of pre-injury or illness job					0.766
Management, professional, or related[a]	20.6	21.1	20.1	1.0	
Service[b]	41.8	42.5	41.1	1.4	
Sales and office[c]	7.5	6.2	8.9	-2.7	

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Natural resources, construction, or maintenance[d]	7.2	6.8	7.6	-0.8	
Production, transportation, or material moving	22.9	23.4	22.4	1.0	
Economic well-being					
Job paid at least $1,000 per month [e]	78.8	78.2	79.3	-1.1	0.756
Receipt of income other than earnings:					
SSDI or SSI	†	†	†	†	0.315
Veterans' benefits	†	†	†	†	0.150
Workers' compensation	0.0	0.0	0.0	0.0	N/A
Employer-provided or other private disability insurance	22.1	23.7	20.4	3.3	0.325
Other public programs	0.0	0.0	0.0	0.0	N/A
Applied for or received SSDI or SSI in the past three years	†	†	†	†	0.404

Source: OH RETAIN enrollment data through June 30, 2022.

[a] The occupational classification of management, professional, or related occupation includes the following job functions: management, business, and financial operations; computer and mathematical; architecture and engineering; life, physical, and social science; community and social service; legal; educational instruction and library; arts; design; entertainment, sports, and media occupations; health care practitioners; and technical.

[b] The occupational classification of service includes the following job functions: health care support; protective; food preparation and serving related; building and grounds cleaning and maintenance occupations; and personal care and service.

[c] The occupational classification of sales and office includes the following job functions: sales and related; office and administrative support.

[d] The occupational classification of natural resources, construction, or maintenance includes the following job functions: farming, forestry, and fishing; construction and extraction; installation, maintenance, and repair.

[e] We do not have accurate earnings information from OH RETAIN.

† Suppressed to avoid disclosing information about particular individuals.

N/A = not applicable; OH RETAIN = Ohio Retaining Employment and Talent After Injury/Illness Network; RTW = return to work;
SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

Appendix E:

Background Information and Supplemental Exhibits for Chapter VII

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This appendix contains supplemental exhibits for Chapter VII. These exhibits include information about VT RETAIN program subcontractors and leading partners (Exhibit E.1), the recruitment and enrollment process (Exhibit E.2), enrollment outcomes (Exhibit E.3), and enrollee characteristics (Exhibits E.4, E.5, and E.6).

Exhibit E.1. VT RETAIN program partners

Partner entity	Role in VT RETAIN	Leadership team	Phase I partner
Vermont Department of Labor (VDOL)	Lead agency. Recipient of the cooperative agreement with the U.S. Department of Labor. Runs the operational center, which oversees administration of the grant.*	Yes	Yes
Dartmouth Health	Health care partner and subgrantee. Manages the clinical coordinating center. Recruits primary care practices into VT RETAIN. Provides oversight of (1) recruiting and enrolling eligible workers and (2) recruiting, training, and supporting RTW coordinators.	Yes	Yes
Workforce Development Division of VDOL	Division within VDOL that will integrate employment services into VT RTEAIN. Houses employment counselors.*	Yes	Yes
Haig Consulting, LLC	Subgrantee that manages the development center. Coordinates a sustainability planning group and operates a training and development program for employers, providers, and workers.*	Yes	Yes
University of Pittsburgh	Subgrantee that manages the data coordinating center. Manages the evaluation data and reviews program data to support continuous quality improvement.	Yes	Yes
OneCare Vermont	Health care partner. Vermont's sole accountable care organization, founded by the University of Vermont and Dartmouth-Hitchcock, facilitates recruitment of primary care practices.*	Yes	Yes
VT Department of Mental Health	Assists in development of mental health and recovery friendly training and certification for employers.*	Yes	Yes
Recovery Vermont	Assists in development of mental health and recovery friendly training and certification for employers.	Yes	No
Vermont Chamber of Commerce	Employment partner. Promotes VT RETAIN training and resources to employers.*	Yes	Yes
Working Fields	Connects VT RETAIN with 80+ employers committed to getting workers in recovery back to work.	No	No
Division of Vocational Rehabilitation	Employment partner. Connects treatment enrollees to appropriate vocational rehabilitation services.*	Yes	Yes
Northern Vermont University	Enables treatment enrollees in rural areas access to training and services through telehealth portals and a mobile app.	Yes	Yes
Vermont Executive Director of Racial Equity	Oversaw the equity assessment. Provides diversity, equity, and inclusion expertise.	Yes	Yes

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

Note: *Indicates partners with representation in a sustainability planning group. Additional partners with representatives include Blue Cross Blue Shield of Vermont, Division of Disability Determination Services, and Invest Employer Assistance Program Centers for Wellbeing.

RTW = return to work; VT RETAIN= Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.2. VT RETAIN recruitment and enrollment process

Element of recruitment process	Description
Referral source	• Patients at participating primary care practices self-refer by completing a pre-screener. • VT RETAIN encourages participating practices to integrate pre-screening into visit registration, but each practice identifies the screening mode and workflow that best fits their practice. • Pre-screeners are available on paper forms or electronic forms on tablets, kiosks, etc. • The pre-screener is 508-compliant and available in several languages.
Recruitment	• The study coordinator calls patients who pre-screen as potentially eligible to screen for eligibility. • The study coordinator introduces the RETAIN program and attempts to recruit workers.
Enrollment	• The study coordinator asks enrollees to sign a consent form. • The study coordinator asks the eligible worker to complete the part 1 of the baseline survey through an online portal, picking up and dropping off paper forms at their primary care practice or receiving paper forms in the mail. The eligible worker can opt for the study coordinator to help them navigate the completion of the forms over the telephone. • The study coordinator asks the enrollee to complete the Baseline Participant Survey Part 2 and a functional assessment, with support from the study coordinator. • If applicable, the study coordinator collects the worker's reasons for declining participation, and VT RETAIN uses this information for continuous quality improvement.
Randomization	• Mathematica helps randomize patients into the treatment or control group, depending on whether they are affiliated with a treatment or control clinic.
Initial engagement into the program	• The study coordinator provides all enrollees with program resources, informs the enrollee about American Job Center services, and assists the enrollee in opening a VT JobLink* account if they do not have one. • The study coordinator provides an incentive payment of $50 to the enrollee upon completion of enrollment and intake forms (authorization form, Baseline Participant Survey Part 1-2, coach intake, functional assessment). • The study coordinator assigns the treatment enrollee to an RTW coordinator. • The RTW coordinator asks treatment enrollees to sign a health care-compliant authorization form to authorize the RTW coordinator to access their health records and communicate with their health care providers and RTW care team.
Discharge from program	• The study coordinator provides a final $50 compensation after the treatment enrollee completes the final satisfaction survey. • Enrollment concludes when the treatment enrollee achieves the goals documented in their RTW plan or has been enrolled for 6 months (whichever comes first).

Source: Phase 2 state grant application, quarterly progress reports, and virtual site visit interviews.

Note: * Vermont JobLink is an online job-matching and labor market information system.

RTW = return to work; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.3. Initial enrollment outcomes in VT RETAIN

Enrollment indicator	Outcome
Practices enrollment target	68 (34 treatment practices and 34 control practices)
Number of enrolled treatment practices	27
Number of enrolled control practices	30
Worker enrollment target	2,040 (1,020 treatment enrollees and 1,020 control enrollees)
Number of treatment enrollees	18
Number of control enrollees	20
Percentage of total enrollment target met	1.9

Source: VT RETAIN enrollment data through June 30, 2022.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.4. Demographic characteristics of VT RETAIN treatment and control enrollees (percentages unless noted otherwise)

`Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	38	18	20	-2	
Sex					0.064
Male	42.1	61.1	25.0	36.1	
Female	55.3	38.9	70.0	-31.1	
Age					0.370
18–29 years	†	†	†	†	
30–39 years	†	†	†	†	
40–44 years	21.1	22.2	20	2.2	
45–49 years	†	†	†	†	
50–54 years	18.4	22.2	15	7.2	
55–59 years	†	†	†	†	
60+ years	†	†	†	†	
Mean (years)	45.9	48.2	43.8	4.4	0.232
Race and ethnicity					0.285
Hispanic	0.0	0.0	0.0	0.0	
White, non-Hispanic	97.4	94.4	100.0	-5.6	
Black, non-Hispanic	0.0	0.0	0.0	0.0	
Asian, non-Hispanic	0.0	0.0	0.0	0.0	
More than one race	†	†	†	†	
Other, non-Hispanic	0.0	0.0	0.0	0.0	
No response	0.0	0.0	0.0	0.0	
Preferred language					N/A
English	94.7	94.4	95.0	-0.6	
Spanish	0.0	0.0	0.0	0.0	
Other	0.0	0.0	0.0	0.0	

`Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Education			`		0.147
Less than a high school diploma	†	†	†	†	
High school diploma, GED or certificate of completion	39.5	44.4	35	9.4	
Occupational certificate/license or 2-year college degree	34.2	16.7	50	-33.3	
4-year college degree or post-graduate degree	†	†	†	†	

Source: VT RETAIN enrollment data, through June 30, 2022.

† Suppressed to avoid disclosing information about particular people.

VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.5. Illness or injury characteristics of VT RETAIN treatment and control enrollees (percentages)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	38	18	20	-2	
Primary diagnosis based on ICD-10 codes [a]					0.850
Musculoskeletal, back	21.1	22.2	20.0	2.2	
Musculoskeletal, non-back[b]	26.3	22.2	30.0	-7.8	
Mental	†	†	†	†	
Long COVID	0.0	0.0	0.0	0.0	
Other	39.5	38.9	40.0	-1.1	
New condition	47.4	50.0	45.0	5.0	0.747
Injury or illness as a result of an accident	31.6	33.3	30.0	3.3	0.820
Work-related injury or illness	42.1	44.4	40.0	4.4	0.773
Injury or illness as part of a workers' compensation claim	†	†	†	†	0.551
Time between injury or illness and enrollment (days) [c]	105.1	80.1	127.4	-47.3	0.115

Source: VT RETAIN enrollment data through June 30, 2022

Note: We classify ICD-10 codes into five primary diagnosis categories: Musculoskeletal, back; Musculoskeletal, non-back; Long COVID; Mental; and Other. The table that follows provides our mapping of ICD-10 codes into the five primary diagnosis categories. These groupings build on previous studies of return to work among injured or ill workers, such as Contreary et al. (2018), Neuhauser et al. (2018), and Bourbeonniere and Mann (2018).

Primary diagnosis category	ICD-10 codes
Musculoskeletal, back	M40-M54; M96.1; M99.2-M99.7; S13.4; S23.3; S30-S39.
Musculoskeletal, non-back	M00-M36; M60-M95; M96 (except M96.1); M97; M99 (except M99.2-M99.7); S00-S29 (except S13.4;S23.3); S40-S99
Mental	Codes beginning with F
Long COVID	Z86.16; U09
Other	ICD10 codes that do not fall under any of the four categories above

[a]Vermont's reporting process might affect the share of people in each impairment grouping. Instead of directly recording the primary ICD10 code for each enrollee, Vermont developed a drop-down menu of 30 impairment categories to select from (for example, Back, Hip, Knee, Cardiac, Stroke, Mental Health). For injuries or illnesses that do not fall into the specified categories, the Vermont team entered the primary ICD10 code. This process might lead to a different distribution of impairment groupings than recording the primary ICD10 code for each enrollee. However, given the relatively broad impairment groupings we constructed, we expect any differences would be minimal.

[b] Musculoskeletal, non-back includes conditions that affect the joints, bones, muscles, or multiple body areas or systems.

[c] A small percentage of enrollees enrolled before the date of injury. These enrollees were not included when calculating the average time between illness or injury and enrollment.

[†] Suppressed to avoid disclosing information about particular people.

ICD= International Classification of Diseases; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network.

Exhibit E.6. Employment characteristics of VT RETAIN treatment and control enrollees (percentages unless noted otherwise)

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Total number of enrollees	38	18	20	-2	
Recent work history					
Employment status					0.933
Not employed	26.3	27.8	25.0	2.8	
Self-employed	†	†	†	†	
Employed	60.5	61.1	60.0	1.1	
Length of time since last worked					0.488
Currently working	36.8	27.8	45.0	-17.2	
Last worked < 1 week ago	18.4	16.7	20.0	-3.3	
Last worked 1 to 4 weeks ago	†	†	†	†	
Last worked 1 to 3 months ago	†	†	†	†	
Last worked > 3 months ago	23.7	22.2	25.0	-2.8	
Hours per week usually worked before injury or illness	38.9	40.3	37.8	2.5	0.404
Tenure at current job					0.974
Less than 6 months	23.7	27.8	20.0	7.8	
6 months to 1 year	26.3	22.2	30.0	-7.8	
1 to 2 years	†	†	†	†	
2 to 5 years	†	†	†	†	
5+ years	28.9	27.8	30.0	-2.2	

Characteristic	All (A)	Treatment (B)	Control (C)	Difference (B – C)	*p*-value
Occupational classification of pre-injury or illness job					0.228
Management, professional, or related[a]	26.3	22.2	30.0	-7.8	
Service[b]	26.3	27.8	25.0	2.8	
Sales and office[c]	10.5	0.0	20.0	-20.0	
Natural resources, construction, or maintenance[d]	†	†	†	†	
Production, transportation, or material moving	†	†	†	†	
Economic well-being					
Job paid at least $1,000 per month [e]	78.9	77.8	80.0	-2.2	0.871
Receipt of income other than earnings:					
SSDI or SSI	0.0	0.0	0.0	0.0	N/A
Veterans' benefits	†	†	†	†	0.350
Workers' compensation	†	†	†	†	0.298
Employer-provided or other private disability insurance	†	†	†	†	0.350
Other public programs	†	†	†	†	0.357
Applied for or received SSDI or SSI in the past three years	0.0	0.0	0.0	0.0	N/A

Source: VT RETAIN enrollment data through June 30, 2022.

[a] The occupational classification of management, professional, or related occupation includes the following job functions: management, business, and financial operations; computer and mathematical; architecture and engineering; life, physical, and social science; community and social service; legal; educational instruction and library; arts; design; entertainment, sports, and media occupations; health care practitioners; and technical.

[b] The occupational classification of service includes the following job functions: health care support; protective; food preparation and serving related; building and grounds cleaning and maintenance occupations; and personal care and service.

[c] The occupational classification of sales and office includes the following job functions: sales and related; and office and administrative support occupations which includes sales and related; and office and administrative support

[d] The occupational classification of natural resources, construction, or maintenance includes the following job functions: farming, forestry, and fishing; construction and extraction; installation, maintenance, and repair.

[e] We do not have accurate earnings information from VT RETAIN

† Suppressed to avoid disclosing information about particular people.

N/A = not applicable; VT RETAIN = Vermont Retaining Employment and Talent After Injury/Illness Network; RTW = return to work;
SSDI = Social Security Disability Insurance; SSI = Supplemental Security Income.

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