



A smart and connected ecosystem for faster return to work for insurers

To combat the rising cost of claims and significantly improve customer engagement, disability, personal injury and workers' comp insurers must transform their return to work (RTW) programs with innovative digital technologies and digital health programs that deliver better and faster outcomes as well as operational cost savings.

Executive summary

Despite improved results, workers comp, personal injury and disability insurance leaders remain wary, primarily due to persisting high expense ratio.

Despite reduction in the number of injuries, the cost of injury borne by insurers is on the rise. The deficit is primarily due to continuing

medical inflation, indemnity costs and cost of operations. With longer tail injuries such as psychological injuries and musculoskeleton injuries, insurers today find themselves with a tough business predicament - a larger potential for increased payout.

Thus, the key mandate for these insurers is to reduce their loss ratios further. To do this, they need to improve their measures of loss prevention and loss reduction. The long tail nature of workers' comp liability claims makes it even more important to reduce and prevent claims.

Loss reduction can be achieved, in part, through efficient and effective return to work (RTW) programs. This paper discusses how digital health concepts and innovative digital technologies can be used by disability and workers' comp insurers to transform RTW programs and enable a safe and faster return to work for disabled employees and injured workers. Even a few days of early return to work could mean a significant dollar savings for these insurers, making this an important goal for them.

RTW program challenges

Most insurers have RTW programs in place to help facilitate the disabled/injured to return back to work in a safe and timely manner. However, continuously high injury claims indicate that insurers can achieve even better results from their RTW programs. Based on our industry expertise, we have identified the following key challenges faced by the various stakeholders in the RTW landscape.

Continuously high disability and workers' comp claims indicate that insurers can achieve even better results from their RTW programs.

Employer

- Lack of a comprehensive RTW policy within the organization
- No mechanism from which insights on workers'/employees' behavior during the disability period can be derived
- No analytics-driven decision-making on job modification planning or alternate employment planning

- Absence of any standard procedures to ensure compliance with all applicable employment laws with respect to return to work, exposing employers to potential lawsuits

Injured

- Lack of motivation among workers/employees to return back to work faster.
- Ineffective communication between the worker/employee and the other key RTW stakeholders.
- Absence of a concrete RTW plan makes workers/employees uncertain about the future and increases their dependencies on indemnity/disability income.

RTW coordinator / case manager

- Lack of a centralized, integrated and collaborative platform to perform RTW tasks.
- No real-time mechanism for the case manager and physician to monitor worker/employee wellness status and prescribe changes.
- Lack of sufficient real-time worker/employee wellness data to take timely actions. The "day-in-the-life" data of an injured worker or disabled employee is not captured.
- Lack of effective communication tools to enable stronger collaboration with all other key RTW stakeholders.

As a result, insurers must bolster their RTW programs by creating a smarter and more connected RTW ecosystem. A more robust ecosystem would result in a win-win situation for all key RTW stakeholders – employers, employee/worker, insurers and physicians.

Crafting a smarter and more connected RTW ecosystem

With connected devices expanding into the healthcare space, giving rise to digital health concepts, the case becomes all the more compelling for insurers to leverage these devices and transform the RTW ecosystem in a similar way.

Connected devices such as wearables and medical sensors powered by social, mobile, artificial intelligence and gamification technologies have the potential to completely transform the RTW space.

As depicted, this smart ecosystem would facilitate two key aspects:

- Help generate a wealth of continuous, real-time wellness data from injured workers/disabled employees.
- Facilitate better operational effectiveness and efficiency across stakeholder functions:
 - Enable real-time monitoring of the injured's medical conditions for physicians and other stakeholders.
 - Enable better recovery experience for the injured worker/disabled employee.
 - Enable case manager to be more productive and effective.

- Enable better decision-making and productivity gains for employers.

As noted, a plethora of real-time data can be generated by the injured worker or disabled employee with this new smart and connected RTW ecosystem. Figure 1 highlights some of these key data points that can be collected.

Such breadth of data has not been available until recently. But with more data in hand, insurers have better scope upon which to improve their RTW functions across stakeholder functions (see Figure 2). It also provides them with additional analytical insights to inform better decision-making.

Analytical data for an injured worker or disabled employee with connected devices

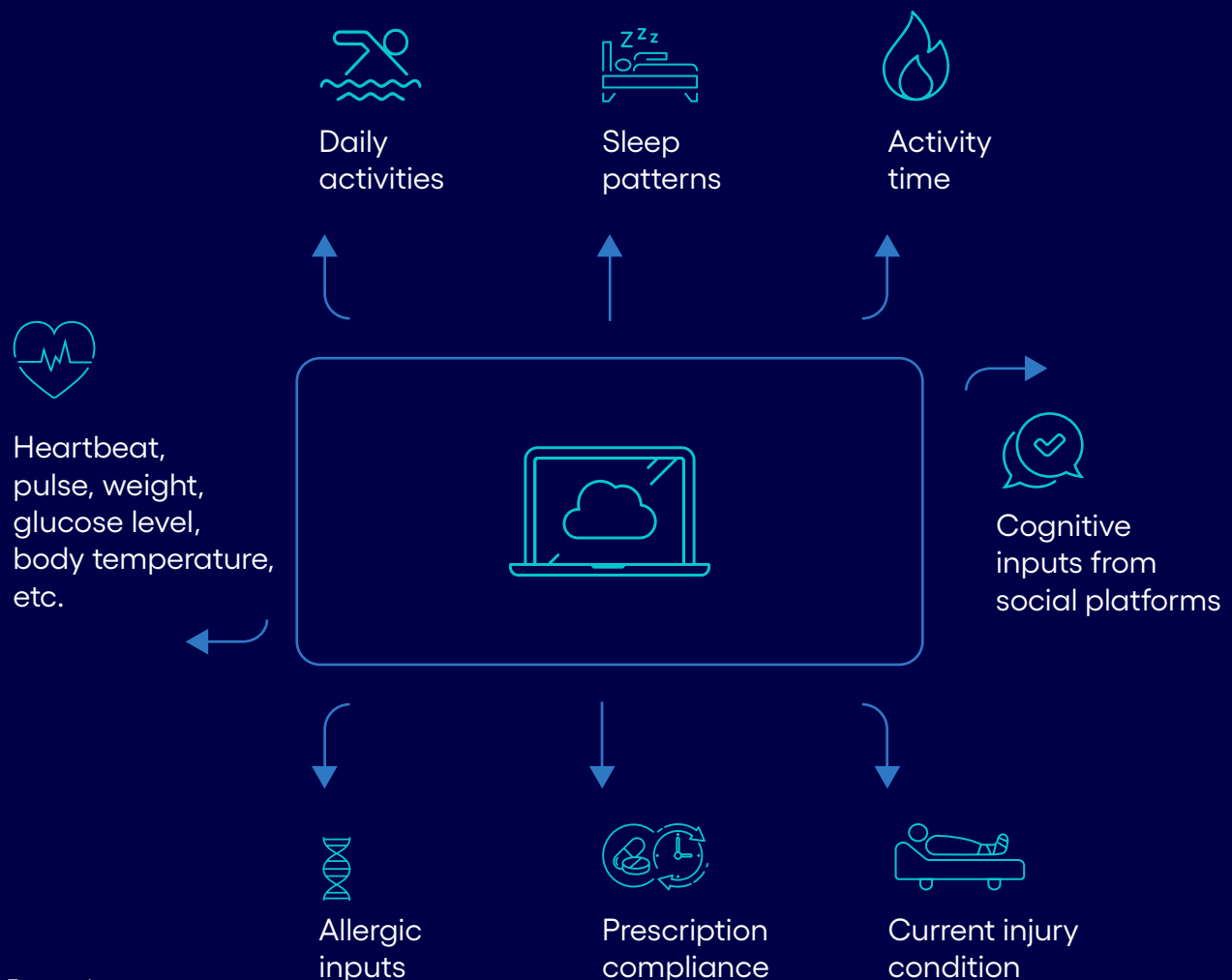


Figure 1

Transforming the RTW ecosystem with connected devices



Figure 2

Enabling real-time monitoring of medical conditions by physicians, other stakeholders

The traditional way of monitoring progress involves several repeated hospital visits and tests. This new RTW ecosystem, however, has the potential to enable more real-time collaboration between physicians and patients, thanks to connected devices such as quantified self-movement devices (e.g., Kinect, Fitbits and related wearables). A physician could program physical exercises on Kinect, for example. The injured or disabled then performs the exercises, as guided by Kinect, which delivers progress reports to the individual's physician. The physician can then use the data contained in the report to monitor the injured/disabled worker's recovery. Relevant and allowed information can also be extended to other stakeholders – RTW coordinators, employers and insurers – who could use it to improve RTW functions/operations.

Enabling a better recovery experience for injured/disabled

Injury can bring about emotional distress for a worker/employee. There are risks of the injured/disabled experiencing cognitive disorders (i.e., mental or physical illness occurring simultaneously due to financial pressures, social life cutoffs, dietary restrictions, etc.). These cognitive conditions have a great impact on the number of RTW days. For example, the median duration of RTW for a lumbar strain is 10 days, while it is 26 days for depression with anxiety. When these two conditions coexist, median RTW jumps to 153 days. It is thus important to maintain better emotional levels for the injured/disabled. In current RTW programs, organizations often overlook the injured/disabled's emotional enablement and engagement levels during their recovery. By continuously engaging with the worker/employee and by supporting him with self-servicing tools, education and motivational techniques, the worker/employee will stay connected, motivated and focused on faster RTW (see Figures 3 and 4).

Improved injured/disabled awareness, engagement during the recovery period

Improving injured's awareness	Providing servicing capabilities to injured	Continuous engagement with injured
<ul style="list-style-type: none">• Know the entire RTW lifecycle – who's involved and relevant dates• Receive announcements, notifications, health guidance and wellness tips• Compare employer's expectations with physician's progress report• View financial benefits from a faster RTW• View peer RTW comparison for similar age, gender and disability	<ul style="list-style-type: none">• Manage the claims or the payments involved and track status• Weekly payments• Interactive/enhanced communication with employer and insurer• Certificate of capacity and RTW milestones• Receive alerts and notifications to facilitate on-time prescriptions• View job modification, alternate employment, self employment FAQs• Assist in alternate employment – resumé upload on job sites; interview status updates; calendar, venue, job details• View Social Security FAQs for assistance with SS filing	<ul style="list-style-type: none">• Gamification for education and motivation; leaderboards for engagement• Engage in online communities, blogs, etc. and receive tips/notifications on faster RTW• Best-practice sharing of peers who had successful RTW with similar injury

Figure 3

A day in the life of the injured worker or disabled employee

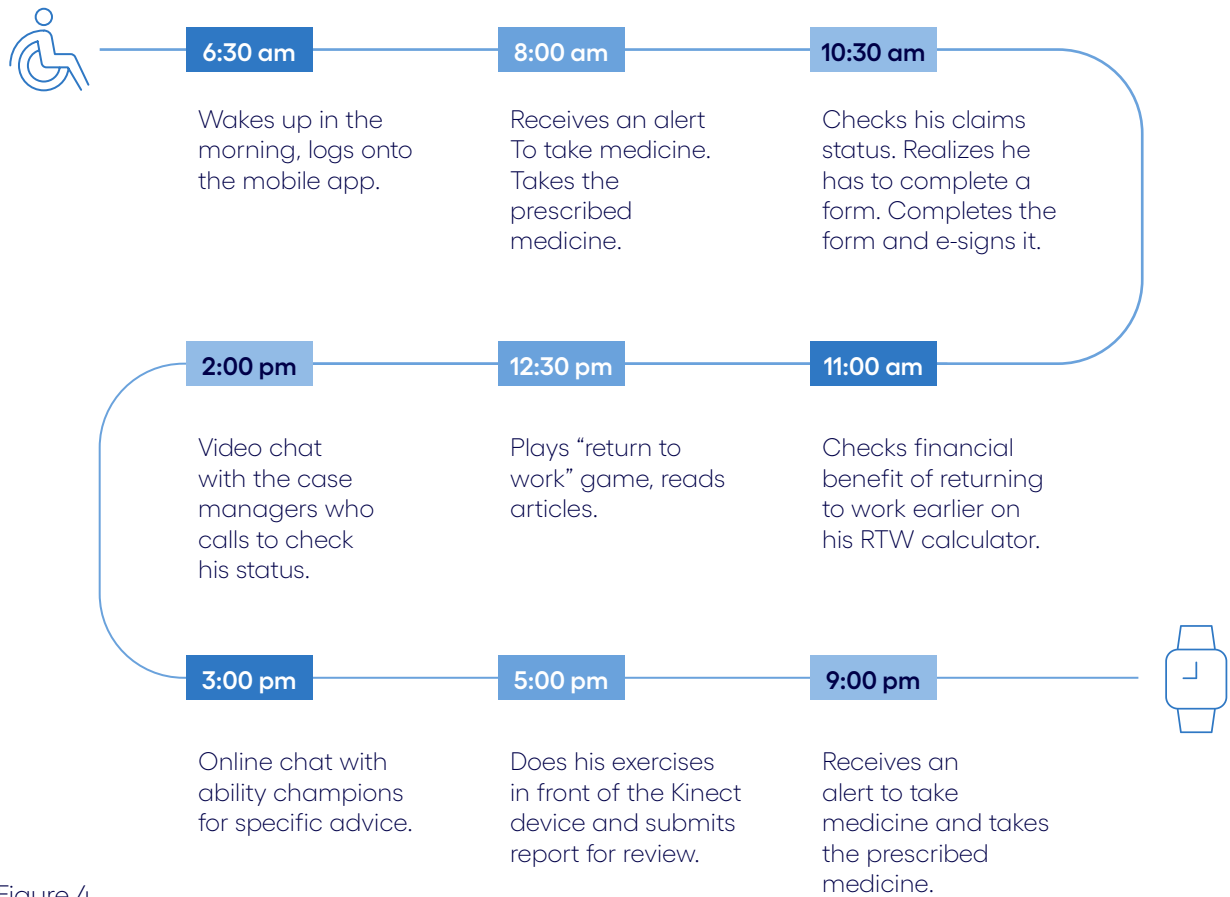


Figure 4



Quick take

Gamification: A tool to improve engagement, motivational levels

Gamification is garnering significant traction in the insurance sector, especially within the health insurance industry. Recent cases of benefits achieved by health insurers from gamification have emerged. For instance, Cigna and Hope Lab jointly offered Re-Mission 2 for young cancer patients to stick with their treatments.¹ Research shows that playing the games boosts players' positive emotions, increases self-efficacy (their belief in their ability to fight cancer) and shifts attitudes about chemotherapy, which lead to better adherence to prescribed treatments. A recent study by Microsoft reveals an increasing number of gamers originating from the assistive community – people injured or with disabilities.²

Insurers should thus look to power this ecosystem using gamification techniques. Among the considerations are to develop games in such a way that they have impact on specific psychological and behavioral outcomes associated with successful treatment. Key gaming techniques insurers should investigate include:

- Continuous and positive reinforcement of the need to return to work in a safe and timely manner through gamifications.
- Leaderboards featuring the results of other RTW gamers, creating a competitive environment fostering a focus on returning to work.

Ensuring the sustenance of RTW motivation through rewards

What if an injured worker or disabled employee is not motivated enough to cooperate with the RTW program or doesn't comply with the prescribed medications or even play RTW games? Success thus resides in the heightened motivational levels and the participation among injured workers/disabled employees. Reward schemes would help achieve this and also help sustain motivational levels. In this new ecosystem, they can also earn rewards for activities that include:

- Compliance with prescriptions.
- Providing mentorship to others who are injured/disabled.
- Contribution to blogs.
- Engaging in “faster RTW”—related games.
- Earned rewards points can be redeemed by workers/employees for personal insurance premium discounts, cash-backs, vouchers or existing reward programs of the employers.



Enabling a more productive and effective case manager

One of the key opportunities for insurers is making their case managers more productive. Their productivity may be undermined by a lack of data and poor communications. But with this smart ecosystem, they have continuous access to more data and collaborative features, through which they can perform their daily tasks better, better manage the injured worker or the disabled employee, provide more value to the employers and, therefore, deliver improved RTW outcomes to the insurer.

Figure 5 illustrates how a case manager is better enabled for improved outcomes.

Facilitating case manager productivity	
<p>Improved enablement through self-servicing capabilities</p> <ul style="list-style-type: none">• RTW portfolio dashboard for effective RTW management.• Workflow management, automatic “task/action” created from claim system through business rules.• Track real-time progress of the health of the worker/employee.• Monitor worker/employee prescription compliance.• Create wellness report to send to physician.• Create job modification planning report to send to employer.• Conduct exit interview to capture best practices during the RTW journey.• Manage claim outcome (action/referral/outcome).• Capture expenses/time spent on administrative services.	<p>Deriving better insights through enhanced analytical information</p> <ul style="list-style-type: none">• Plan effective job modifications based on analytics insights on successful/unsuccessful modification planning done by other similar employers.• Plan effective alternate employments based on analytics insights on successful/unsuccessful alternate employment done by other similar employers.• View and plan based on guidelines and benchmarking data obtained from external disability duration providers.• Benchmark self performance vis-a-vis other case manager in terms of RTW costs reduced or days reduced.

Figure 5

Quick take

Integrating the new RTW ecosystem with the employer’s existing health and wellness programs

Most employers have active, institutionalized health and wellness programs. Insurers can look to provide the employers with a better value proposition where they can maximize the ROI of these programs by integrating them within this new ecosystem.

This enables employers to attain optimized value from their investments in health and wellness programs. It also provides a positive feeling to employees/workers that their employers are providing wellness programs and helping in their recovery.

Enabling improved employer engagement, better decision-making

Employers typically are disconnected from affected employees during the RTW period, except when there is a need for job modification. The new ecosystem transforms this, where the employer is continuously kept in the loop on the injured/disabled employee's progress. When a job modification need comes into play, it is easier for the case manager to work with the employer to make the right decision. The analytical insights presented can help improve employer awareness that job-planning activities are the norm, and that similar businesses are doing it successfully.

This new RTW ecosystem is also capable of providing several predictive and prescriptive analytical RTW insights. They can enable several self-servicing capabilities on their mobile app such as the creation of a work plan, viewing of claim details, etc. which make their daily jobs easier.

The result: win-win-win for all stakeholders

Enabling injured workers or disabled employees to return to work in a safe and timely manner will benefit the insurer, employer and injured worker or disabled employee, resulting in a win for all. Employers benefit from reduced productivity losses, lower insurance costs and enhanced compliance. Injured workers or disabled employees benefit through faster income restoration and subsequent lifestyle gains. Insurers benefit directly through reduced claims costs and indirectly through improved brand image among agents and customers (see Figure 6).

Looking ahead

A new era of digital health is emerging, where healthcare is brought to the patient's home through quantitative movement devices and digital technologies. Real-time data-sharing and collaboration platforms provide for completely new insights into the "day in a life" of a disabled/injured employee/worker to the insurer, which were not available before.

Connected devices and digital technologies will fundamentally alter the way in which disability and workers' comp insurers will establish and administer their RTW programs. A smarter and connected RTW ecosystem will radically change the scope of possibilities available to insurers, companies and employees to continuously improve RTW outcomes. Early adopters will gain early-mover advantages that can deliver and sustain competitive edge versus those insurers that have not embraced this new RTW ecosystem approach which is enabled by Big Data thinking.



How all stakeholders benefit from faster RTW

Faster RTW provides benefits for injured workers or disabled employees by:

Restoring income

- 50% of Aussies living paycheck to paycheck
Source - braverytrust.org.au
- The average disability pay is only 2/3rd of average weekly wage. Thus, resumption to 100% income will boost injured/disabled workers' satisfaction levels.

Improving satisfaction

- Less disruption to family, work and social life.
- Improved employment and financial security.
- Less time spent recovering from injury.
- Reduced level of cognitive impairment.

Faster RTW provides benefits for employers by:

Reducing productivity impact

- Frequency of lost time.
- Length of time lost.
- Productivity losses.

Reducing insurance costs

- Lawsuits.
- Wage replacement costs.
- Worker replacement costs.

Better compliance

- Compliance to SIRA Return to work program checklists and state wise regulations

Faster RTW provides benefits for insurers by:

Reducing costs

- Reduced claims payouts.
- Reduced claims handling costs.

Improving business benefits

- More analytical information for better decision-making and outcomes across product development, underwriting and claims.
- Reduction in cancellations and non-renewals due to improved customer/client satisfaction.
- Increased satisfaction of agents selling workers' comp/disability insurance.
- Effective use of acquisition cost and customer retention.
- Increased competitive edge for insurers.
- Increased cross-sell opportunities.

Figure 6

Footnotes

¹ Preventing and Identifying Comorbidity to Reduce the Impact on Workers' Compensation Claims, Procura, 2013, http://www.procura-inc.com/pdf/press-releases/FINAL_Comorbidities_Position_Paper_2014.pdf.

² <http://newsroom.cigna.com/NewsReleases/games--tech-keep-young-cancer-patients-connected.htm>.

³ Microsoft study on the potential market of accessible technology in the United States, [http://msdn.microsoft.com/en-us/library/windows/desktop/ee415219\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/ee415219(v=vs.85).aspx).

References

http://www.actuarialfoundation.org/consumer/disability_chartbook.pdf

http://blog.shrm.org/sites/default/files/reports/14-0531%20ExSummary_ImpactAbsence_Final.pdf

<http://www.uofmhealth.org/news/archive/201311/rehab-goes-mobile-45m-center-focus-how-videogame-apps-may>

<https://www.ncci.com/documents/WC-Financial-Update-Nov-2014.pdf>

<http://www.insurancejournal.com/news/national/2015/05/14/368206.htm>

https://www.metlife.com/assets/institutional/products/disability/Emotional-and-Financial-Impact-of-Disability-Whitepaper_exp0314.pdf

<http://www.fox19.com/story/22676408/bankratecom-finds-76-of-americans-live-paycheck-to-paycheck>



About the author



Vinodh Stanley Stephen

Head of ANZ Insurance Consulting,
Cognizant

Vinodh Stanley Stephen is the Market Lead for ANZ Insurance Consulting. Vinodh has worked with senior insurance executives across North America, Australia, ASEAN, India and Europe. His consulting experience includes business transformation advisory, innovation advisory, customer experience strategy, process transformation, operating model redesign, platform modernization and business case development. He has also conceptualized innovative solutions by leveraging technology such as machine learning, IoT and block-chain, and has also published many thought leadership papers in the digital insurance space. Vinodh has a master's degree in management from the Institute for Financial Management and Research (IFMR). He also holds insurance certifications from AICPCU and CII. Vinodh can be reached at

Vinodhstanley.Stephen@cognizant.com | www.linkedin.com/in/vinodh-stanley-stephen/.



Cognizant (Nasdaq-100: CTSH) engineers modern businesses. We help our clients modernize technology, reimagine processes and transform experiences so they can stay ahead in our fast-changing world. Together, we're improving everyday life. See how at www.cognizant.com or [@cognizant](#).

World Headquarters

300 Frank W. Burr Blvd.
Suite 36, 6th Floor
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277

European Headquarters

1 Kingdom Street
Paddington Central
London W2 6BD England
Phone: +44 (0) 20 7297 7600
Fax: +44 (0) 20 7121 0102

India Operations Headquarters

#5/535 Old Mahabalipuram Road
Okkiyam Pettai, Thorapakkam
Chennai, 600 096 India
Phone: +91 (0) 44 4209 6000
Fax: +91 (0) 44 4209 6060

APAC Headquarters

1 Fusionopolis Link, #05-01/06
NEXUS@One-North,
North Tower
Singapore 138542
Phone: +65 6812 4051