



Large U.S. retailer saves an average of \$2,224 per injured worker with Bardavon Recovery App

Injured workers using the Bardavon Recovery App returned to full-duty 17 days faster and had 90% reduced temporary partial disability

Executive Summary

Nationally, workers compensation claims involving surgery average nine times more than non-surgical claims, and injured workers take longer to heal. The study client is a large retailer in the U.S., in an industry with a high prevalence of musculoskeletal (MSK) injuries. By partnering with Bardavon the client was able to reduce worker anxiety, avoid costly complications, reduce reliance on in-person services, and help get their workers back to full health sooner.

Over the course of a two-year claims analysis, injured workers that underwent surgery and participated in the recovery app saved an average of \$2,224 in medical claim costs, returned to full duty 17 days sooner, and had 90% lower temporary partial disability (as compared to the injured coworkers undergoing similar procedures who did not use the recovery app). Eight weeks after surgery, 94% of Bardavon Recovery App participants “agreed that the recovery app’s pain management techniques (non-pharma) helped them to manage their pain.”

Per injured worker, the average recovery app participant resulted in:

↓ **\$2,224**

less medical claim costs

↓ **17 days**

less disability

About the Participants

Of the 141 claims which met the criteria¹ between 2018-2020, 56% opted into the Bardavon Recovery App program and 44% declined. The population who participated is similar to the population that did not, utilizing the same provider network for care and the same dedicated Nurse Case Managers.

The recovery app's PreHab/ReHab programs were offered to injured workers with prescribed surgery for:

- Lower Extremities/Knee
- Back
- Upper Arm/Shoulder

Results

The recovery app PreHab surveys were captured one week post surgery. ReHab surveys were captured eight weeks post surgery. All survey results were submitted directly from injured workers via the recovery app. Survey participation was optional, and this study considered the 33 respondents who participated in both surveys.

Per injured worker, the average recovery app participant had:

- \$2,224 less medical claims cost
- 17 days less disability
- 90% lower temporary partial disability

Reduced Costs

Medical costs are any reasonable and necessary expenses including: in-person provider visits like physical therapy, surgery and hospitalization (including re-admissions related to the surgical episode); durable medical equipment (DME); as well as the cost of the Bardavon Recovery App and Case Management.

With the recovery app, the average shoulder claim medical savings was \$2,770 (n=86). Back claims had the largest savings at \$4,778 (n=8). Knee claims had a slightly higher medical cost (n=47).

Lower Partial Disability Days

Although Temporary Total Disability (TTD) was statistically identical for both groups, **Temporary Partial Disability (TPD) was 90% lower** with recovery app participants. The improvement was most pronounced with the 49 shoulder surgery participants. The shoulder surgery participants had an average of 21 days less TPD. Spinal surgery participants averaged 0 days TPD vs. 15 for the non-recovery app group. Knee surgery participants averaged 2 days TPD vs. 12 days for the non-recovery app group.

> For this client, the average cost of TPD is \$16/hour, leading to an overall savings of \$1,120 in partial temporary disability saved per recovery app participant.

¹Time-loss surgical claims under \$250k, surgeries without dedicated relevant Bardavon Recovery App programs and minor surgeries without Case Management services were excluded

Increased Employee Satisfaction

Employee satisfaction was a key criteria for the study because reducing DART days or medical costs at the expense of long-term employee loyalty to their employer would be counterproductive. It was important that the study participants, mostly frontline employees, were self-motivated to complete daily tasks because they were easily finding applicable value.

Survey Results

QUESTION 1

Prior to surgery, the PreHab pain management activities helped me manage my pain.



QUESTION 2

During PreHab, activities were presented in a way I could understand.



QUESTION 3

Prior to surgery, I enjoyed the activities assigned to me.



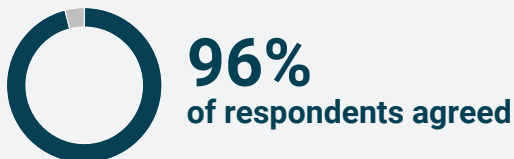
QUESTION 4

Right before my surgery date, I had a good understanding of what I needed to do.



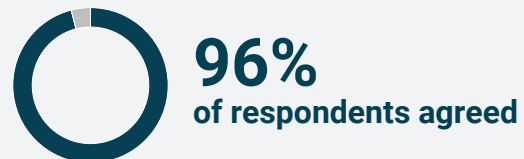
QUESTION 5

I would recommend the Bardavon Recovery App to someone getting surgery.



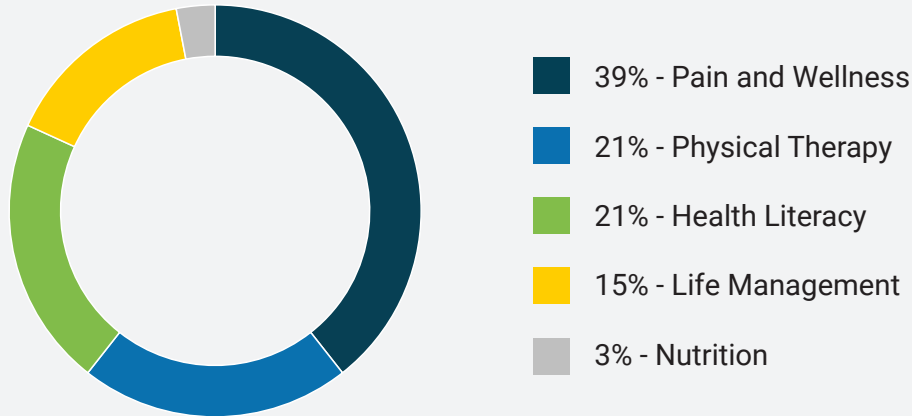
QUESTION 6

As a whole, I'm enjoying my Bardavon Recovery App experience.



QUESTION 7

What type of activity was most helpful in your recovery?



Conclusion

Injured workers from a large retailer in the US used the Bardavon Recovery App to prepare for and recover from MSK surgery. Recovery app participants had significantly reduced medical claims costs (\$2,224 on average). Back surgery claims had the most significant claims cost savings (\$4,778 on average). Compared to the non-recovery app group, partial temporary disability was 90% lower, offering TPD savings of \$1,120.

Overall, Bardavon Recovery App participants cost less, had increased satisfaction with care received, and returned to work faster with less disability.