

# Patient and clinician perceptions of a digital patient monitoring program in the community oncology setting: Findings from the Texas Two-Step Study.

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## Background

Digital monitoring strategies that include electronic patient reported outcomes (ePRO) measures to monitor symptoms among cancer patients have been shown to be effective in improving patient outcomes in a large academic setting and across several smaller multi-center trials. However, demonstration of clinical utility in the real-world setting must incorporate patient and clinician perspectives of ePRO programs to ensure successful implementation. Furthermore, these perspectives are also necessary for organizations like the Centers for Medicare and Medicaid (CMS) as they seek to implement ePRO monitoring as part of future value-based care programs.

We sought to understand perceptions among patients and clinicians in ePRO digital symptom monitoring program.

## Takeaways:

Cancer patients perceive the benefits of remote patient monitoring to be greater than clinicians. Strategies to minimize ePRO monitoring burden for staff and demonstration of the effectiveness of the program are necessary to improve overall satisfaction.

For more information on this research:

[NavigatingCancer.com/Publications](https://navigatingcancer.com/Publications)

For more information regarding Navigating Cancer:

[NavigatingCancer.com](https://navigatingcancer.com)

## Methods

Navigating Cancer worked with Texas Oncology to develop a workflow plan that integrated with existing processes and feedback surveys were administered to patients and clinicians at 6-months post implementation.

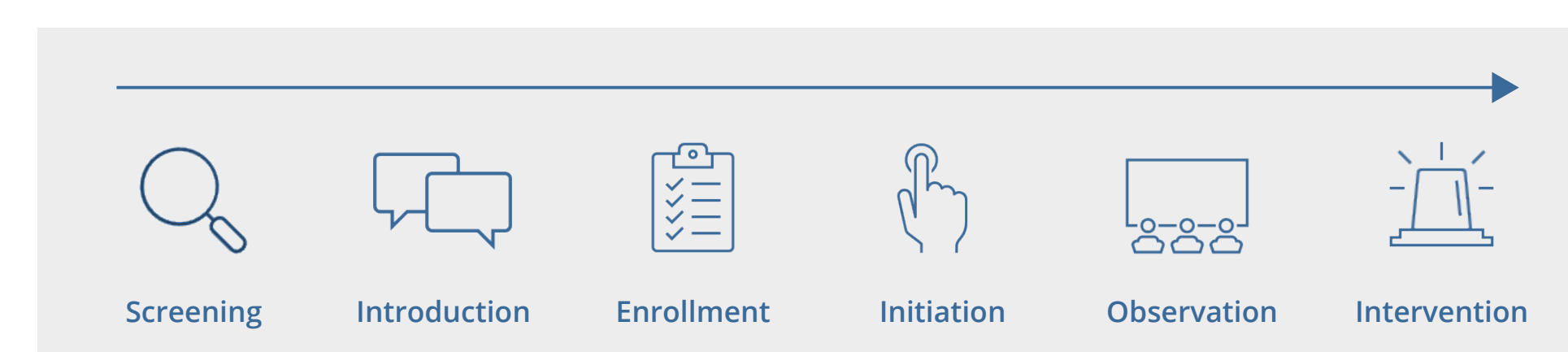


Figure 1: Stepped-Wedge Implementation

Texas Two-Step is an ongoing hybrid implementation-effectiveness study of Navigating Cancer's ePRO digital monitoring program at Texas Oncology. Patients initiating new systemic therapy for their cancer diagnosis were introduced to the program by their oncologist and enrolled in the program by nursing staff for weekly reporting of symptoms based on a modified version of NCI's PRO-CTCAE instrument. Feedback surveys were administered to both patients and clinical staff after 6 months of implementation of the program to evaluate the overall experience with the program.

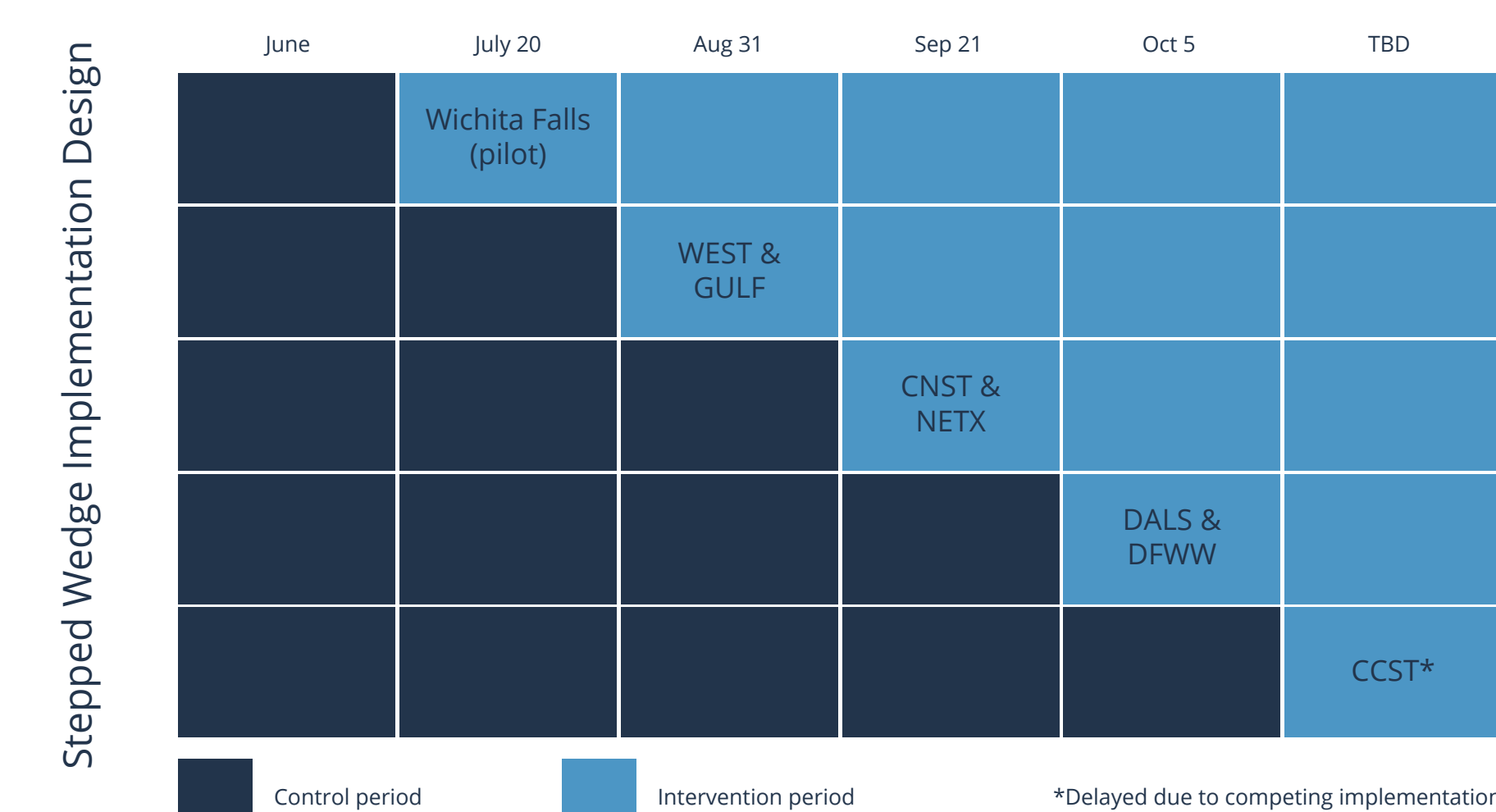
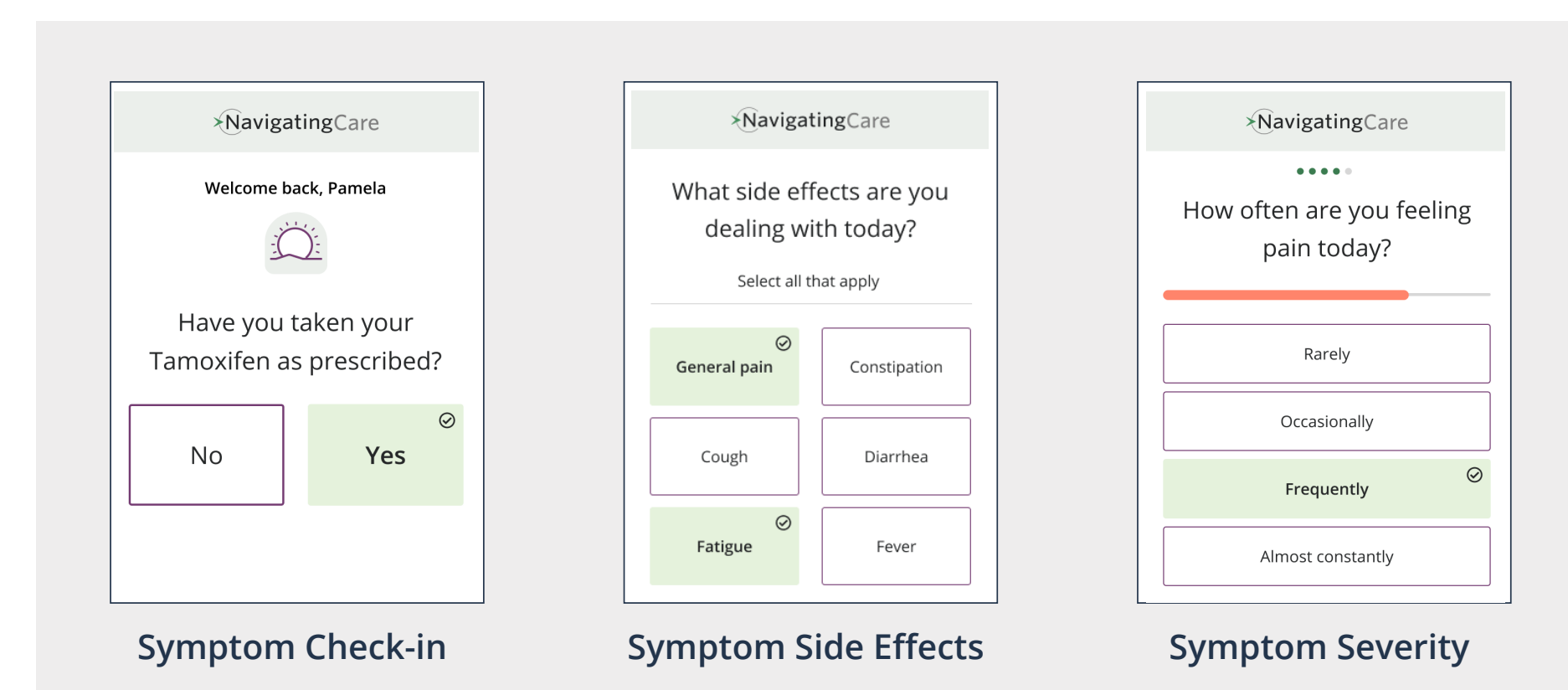


Figure 2: Stepped-Wedge Implementation

## Health Tracker: PRO Instrument

Modified PRO-CTCAE symptom instrument includes 14 of the most common cancer-related symptoms.



- Self-reporting via text messaging (SMS) or email with the option for manual collection by nursing staff for patients without technology access
- Moderate-severe symptoms trigger a real-time notification to nursing staff for immediate intervention

## Results

- 1040 (23.5%) patients and 215 (12.4%) clinicians completed the feedback survey.

**Patient responders rate the remote patient monitoring program easy to use and useful for addressing side effects, with high ratings on quality of care from their clinical team.**

- Of the patient responders, 90% found the program very or somewhat easy for reporting symptoms, 85% moderately-extremely beneficial for having symptoms addressed, and 84% moderately-extremely interested in utilizing the program for future treatments.

Question: How would you describe your experience reporting side effects? Question: How useful was Health Tracker in helping to get your side effects addressed?

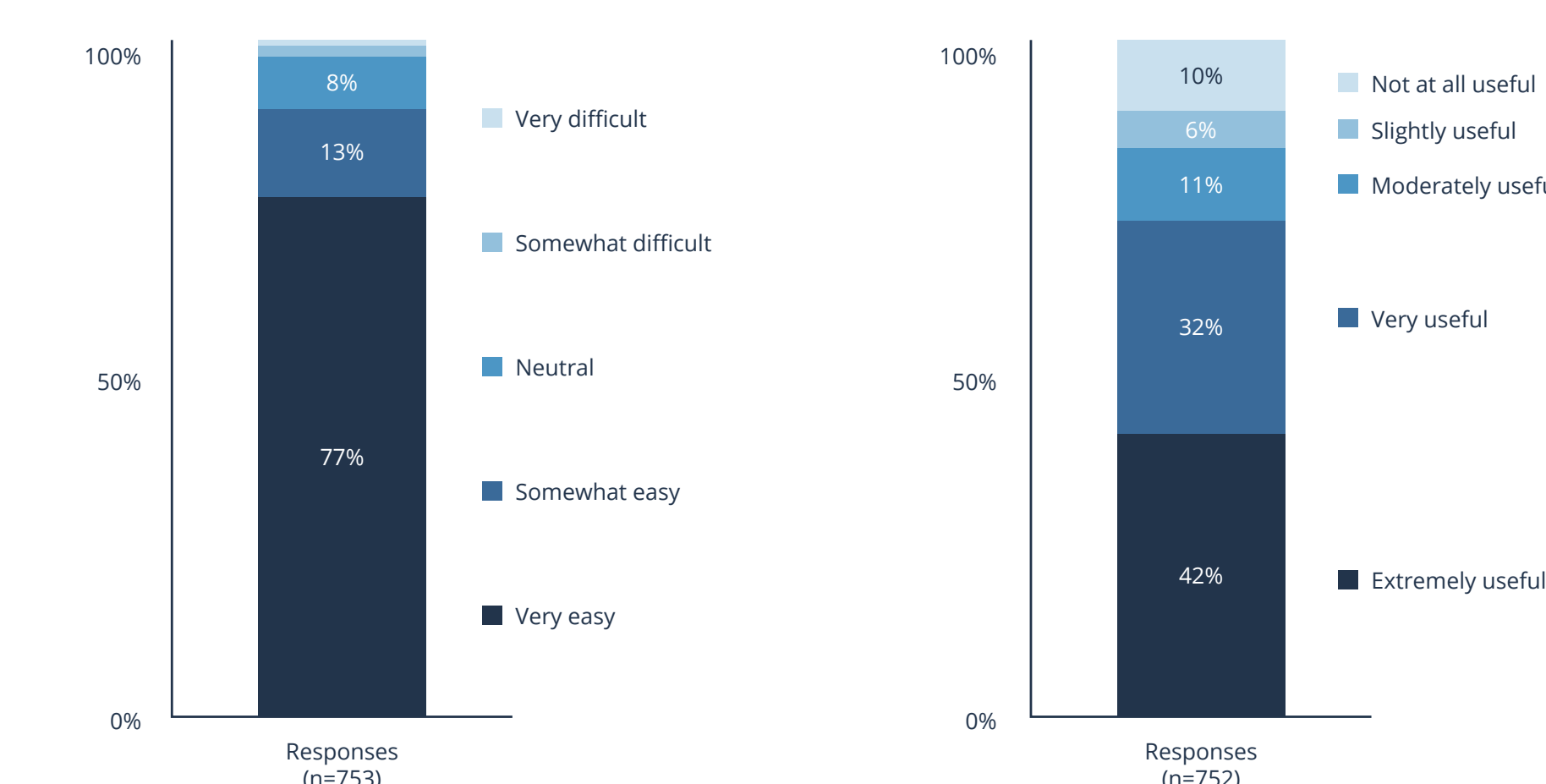


Figure 3: Patients describe ease of use for addressing side effects with the program.

Question: How would you rate the overall quality of care provided by your care team while enrolled in the program? Question: How interested are you in using Health Tracker again for future treatments?

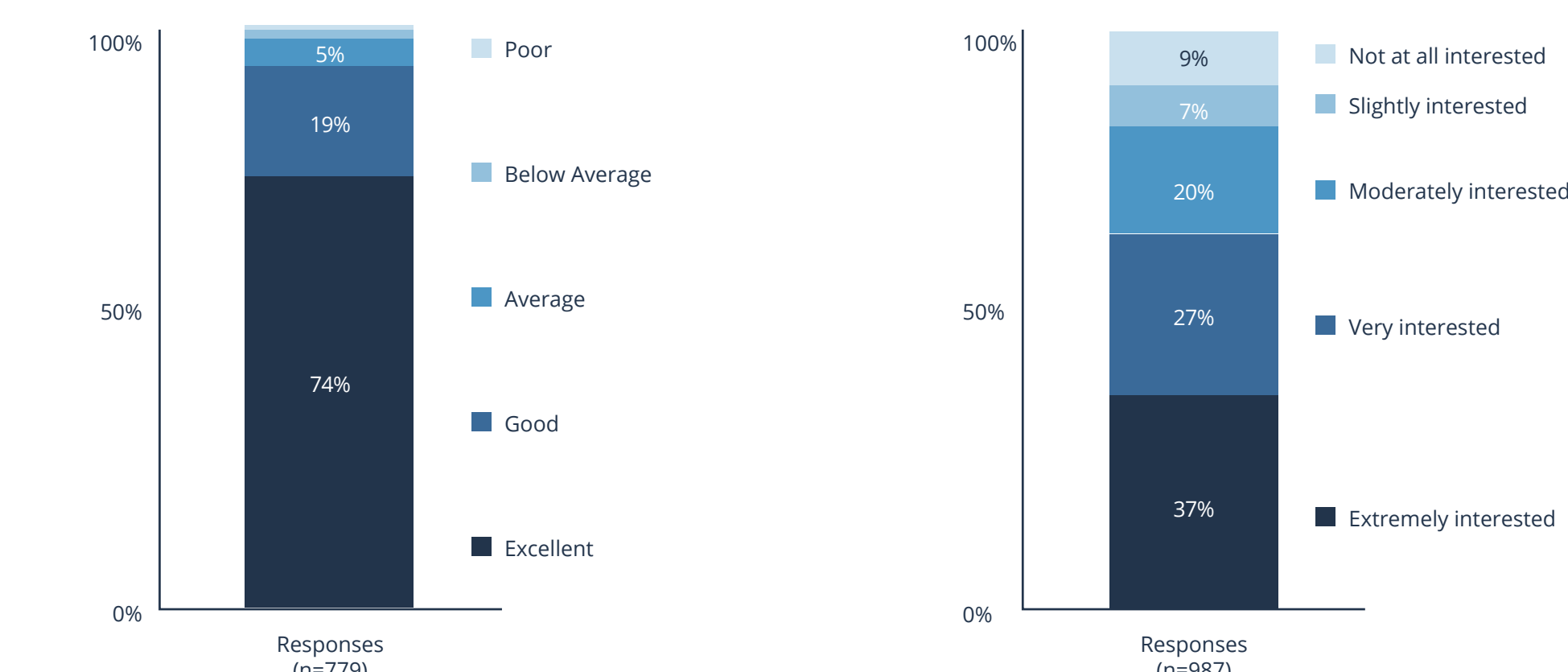


Figure 4: Patients describe utility for addressing side effects with the program.

**Clinician responders feel confident in their ability to use ePRO remote monitoring to facilitate care for patients, but less confident that it enhances care.**

- Of the clinician responders, 74% indicated that that they had a good understanding of the benefit of the program; 70.6% felt confident in their ability to interpret patients' ePRO responses; 80.3% felt confident in their ability to discuss the program with patients; 71.2% confident in their ability to counsel patients based on ePRO responses; and 55.3% felt the program enhanced communication with patients. Additionally, 59% of clinicians felt the program was beneficial for patients.

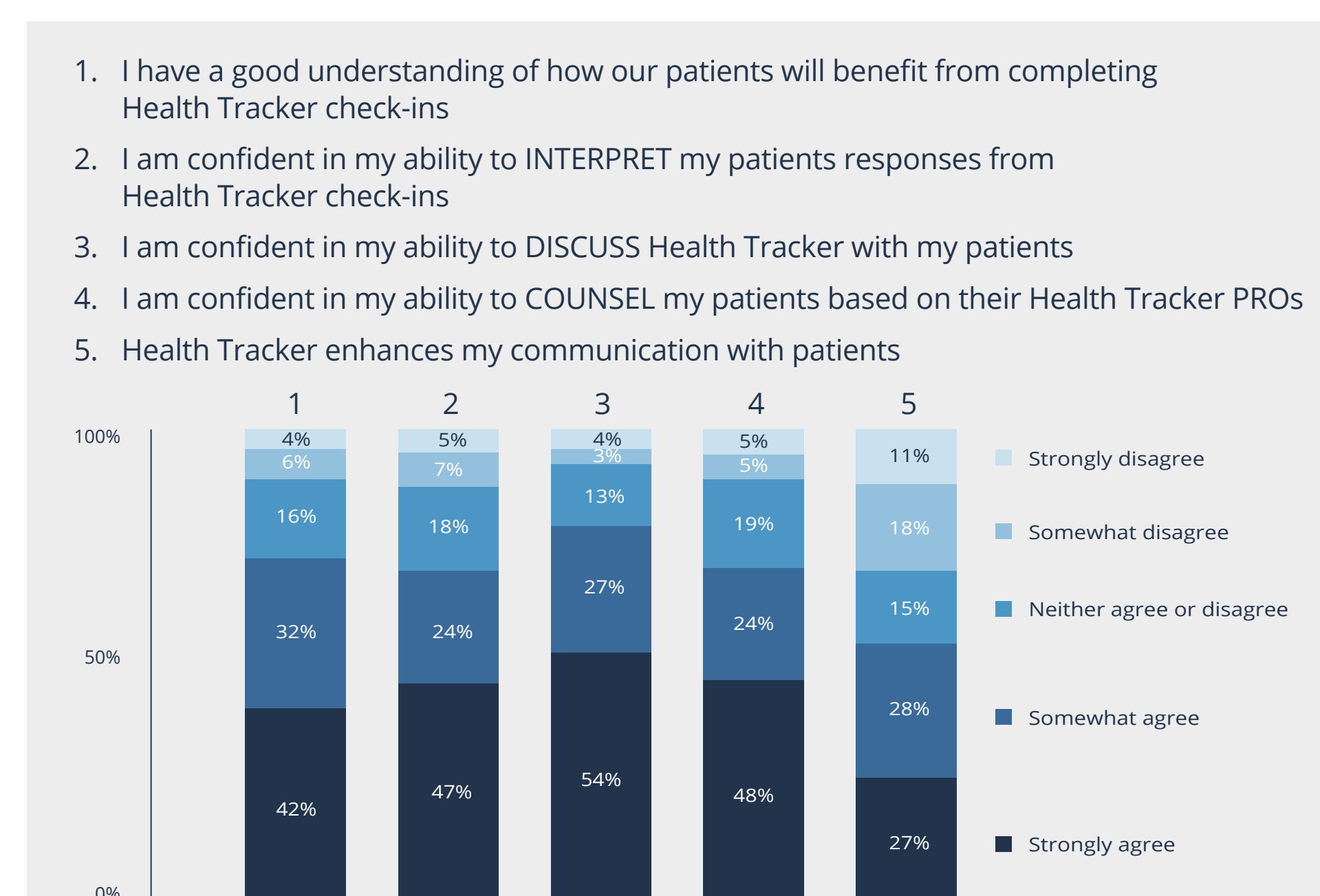


Figure 5: Clinician Responses

**Feedback from patients and providers are not necessarily aligned; patients perceive the benefits higher than the providers**

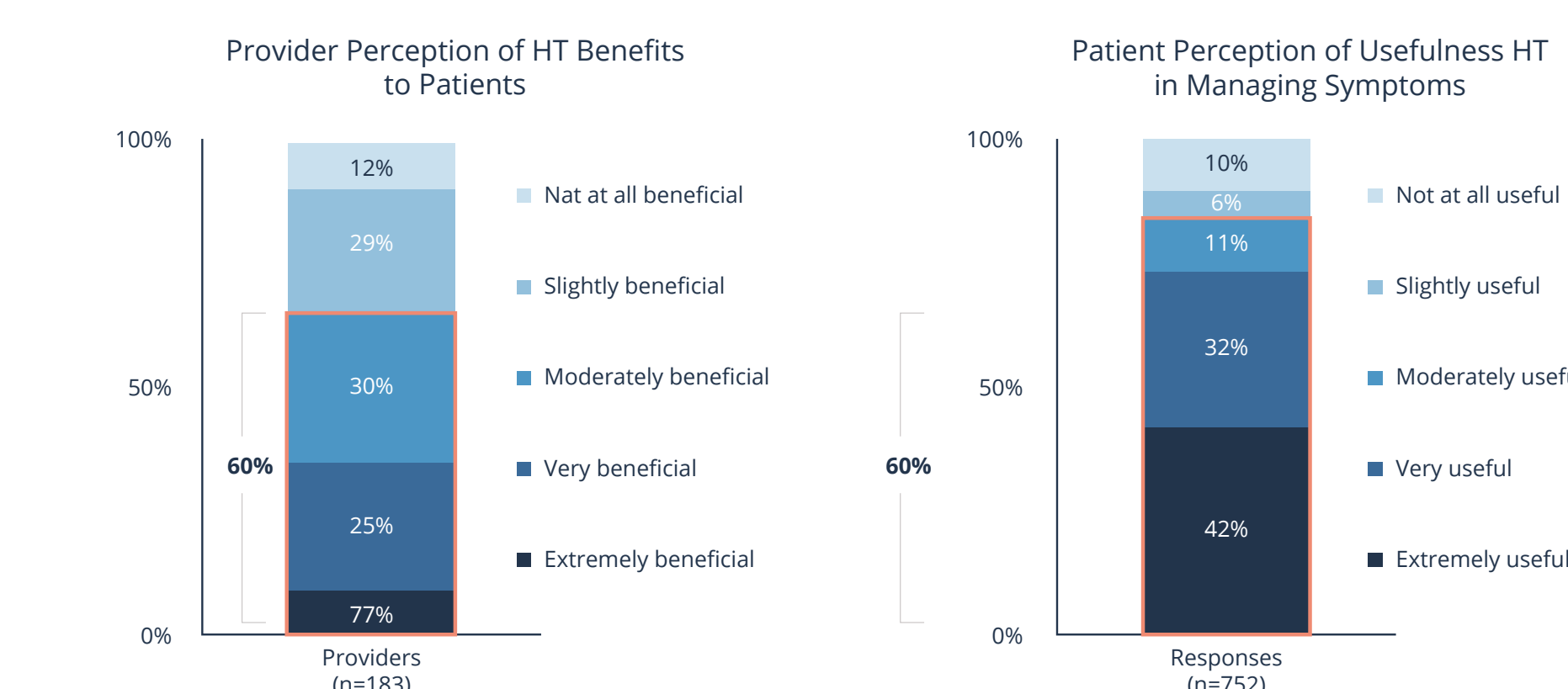


Figure 6: Patients describe ease of use for addressing side effects with the program.

## Discussion

**COVID-19 significantly contributed to differences in clinician vs. patient satisfaction and optimization of remote patient monitoring program will focus on decreasing staff burden.**

### Covid-19 Limitations

- Significant alteration to practice workflows
- Lack of caregiver presence
- New stressors of anxiety, depression, and other mental health concerns
- Clinical staff burnout with increased burden for enforcing symptom management

### Opportunities

- Optimization of the program will focus on methods for decreasing staff burden.
- Clinician involvement and physician champions are essential for driving successful adoption of ePRO monitoring, and strategies to drive engagement from this group will be incorporated moving forward.
- Further evaluation is underway to demonstrate the long-term effectiveness of digital monitoring on patient outcomes.

