

# Clinical, Operational and Economic Benefits Observed From Implementing a Digitally-enabled Wound Care Program in Home Health

HebaTallah Mohammed,<sup>1</sup> Kathleen Corcoran,<sup>2</sup> Robert D. J. Fraser<sup>1,3</sup>  
 Shivika Singal,<sup>2</sup> Kyle Lavergne,<sup>2</sup> Angela Graham,<sup>2</sup> Andrew Rauch,<sup>2</sup> Daniel Gill,<sup>2</sup> Kwame Jones,<sup>2</sup> David Mannion,<sup>1</sup> Malini Krishnamoorthy,<sup>2</sup> Amy Cassata<sup>1</sup>  
<sup>1</sup> Swift Medical, <sup>2</sup> CenterWell Home Health, <sup>3</sup> Western University



## Overview

### The Wound Care Challenge

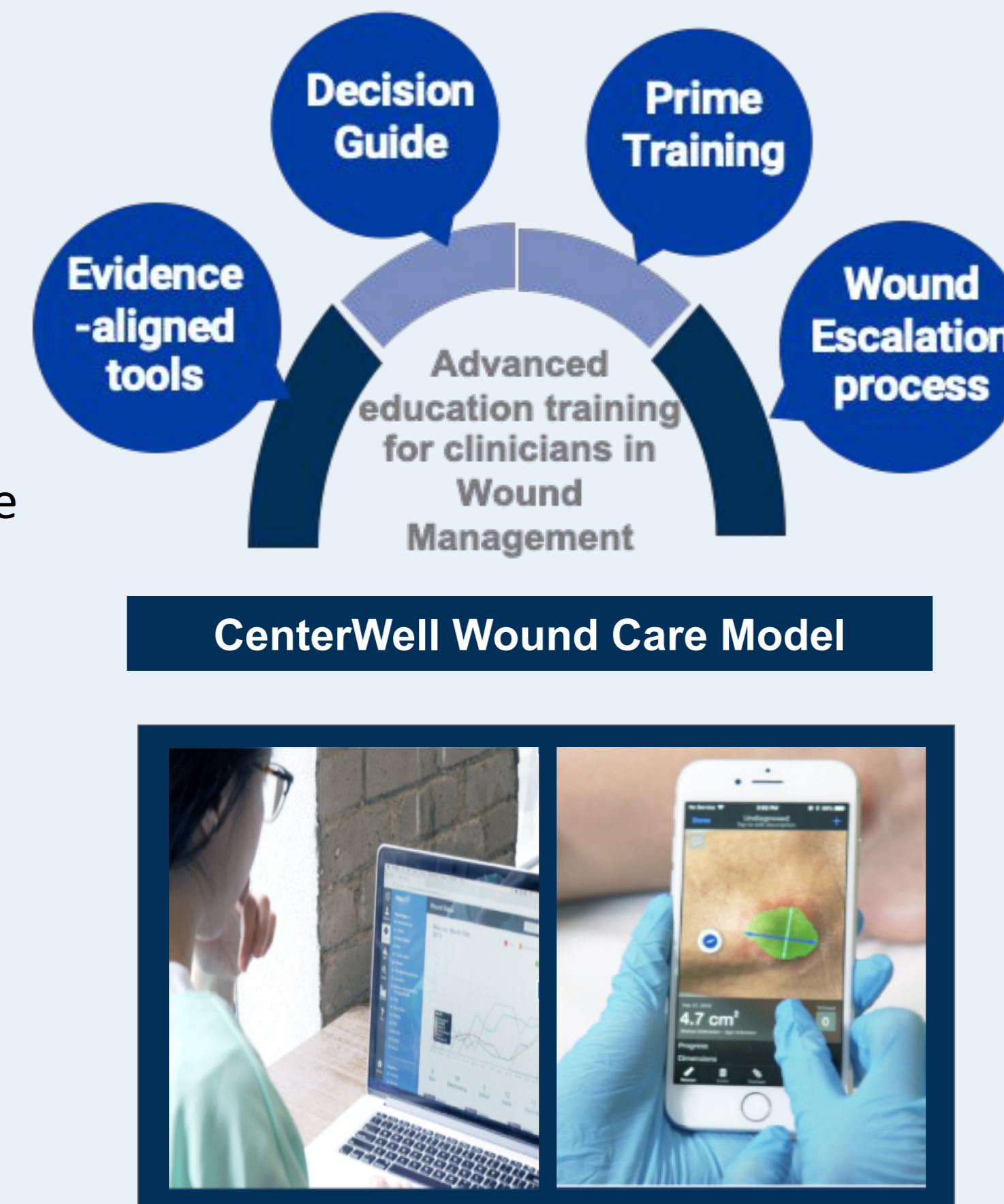
- 6.5 million patients in the US suffer from chronic wounds,<sup>1</sup> and the incidence of comorbidities is on the rise in the aging population,<sup>2</sup> which increases the demand for home health care and nursing visits to help manage these conditions.<sup>3,4</sup>
- Nursing visits continue to absorb a significant amount of the home health (HH) budget,<sup>4</sup> which includes time for assessment, wound care, and developing care management plans.<sup>5</sup>
- The lack of a standardized approach to evaluating wounds may lead to unnecessary or extended visits and prolonged healing time.

### CenterWell Innovative Model in Wound Care

- CenterWell (CW) - a HH agency that provides in-home care service through 355 branches across 40 states in the US.
- In 2020, CW launched a comprehensive program to deliver high-quality wound care across its branches. The program included advanced education for clinicians in wound management (PRIME) to enhance clinicians' knowledge, skills, and ability in the field, and an integrated AI-powered wound management solution, Swift Skin and Wound (Swift Medical, Canada).

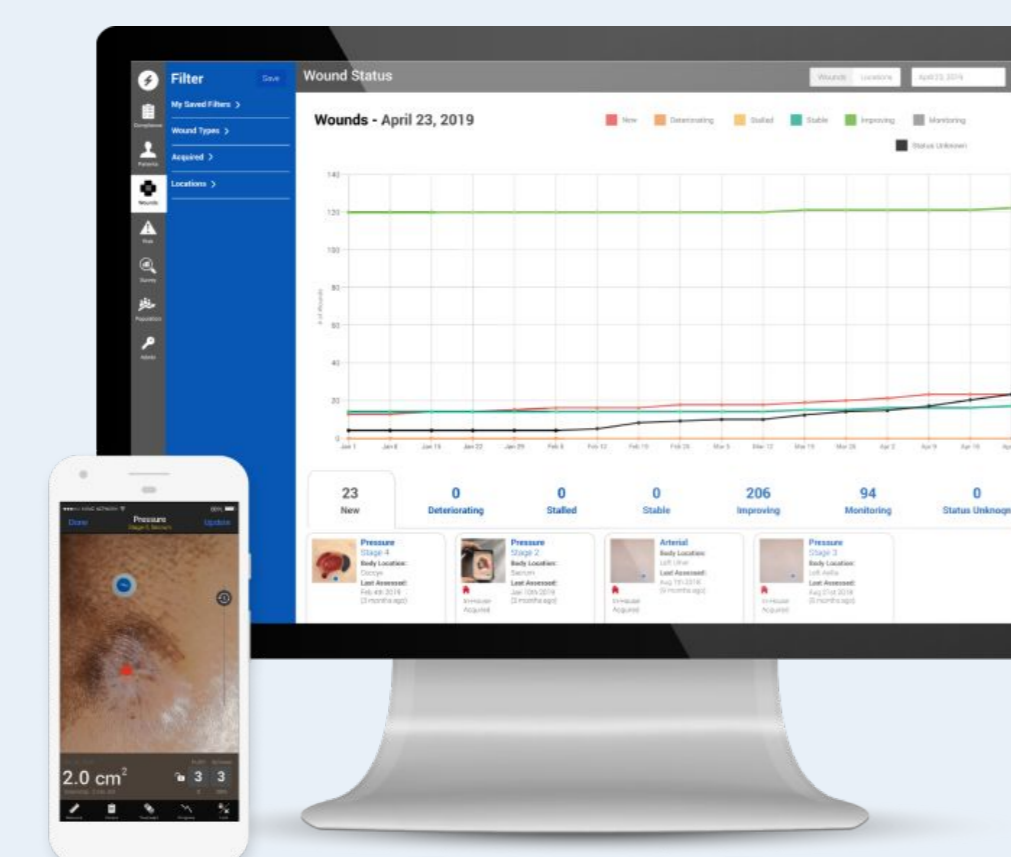
### Digital Technology in Wound Care Model

- Swift Skin and Wound enables standardized wound assessment that accurately measures wounds and tracks healing factors to optimize wound management plans.



## Objective

- To measure changes in clinical, operational, and financial outcomes, among home health branches participating in the wound care program, from 2022 to 2023.
- To describe the benefits of a quality improvement initiative of a HH wound care program incorporating a digital wound management solution into their wound care practice.



## Methodology

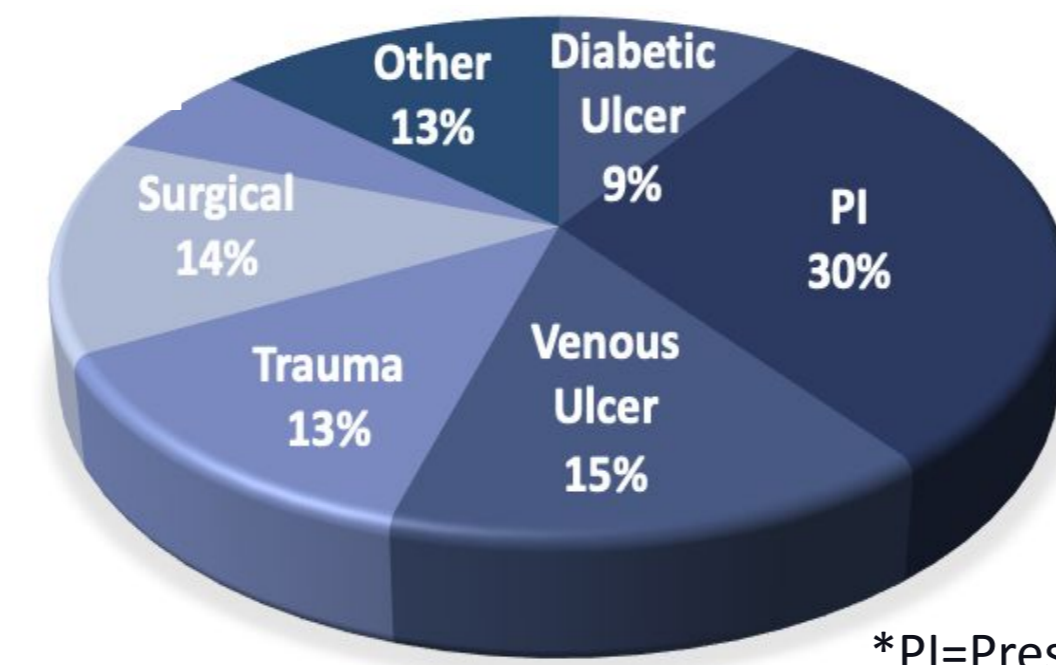
- This observational study used univariate statistics to measure changes in outcomes from 2022 to 2023.
- De-identified wound care assessment data from 14 wound care branches participating in the wound care program and that adopted Swift Skin and Wound were used for this study. Data sources included the CW Homecare Homebase health information system and the Swift database.
- Outcomes included median days to heal, 60-day hospitalization, and the mean number of skilled nursing visits per episode.

## Results

### Swift Adopted Branches

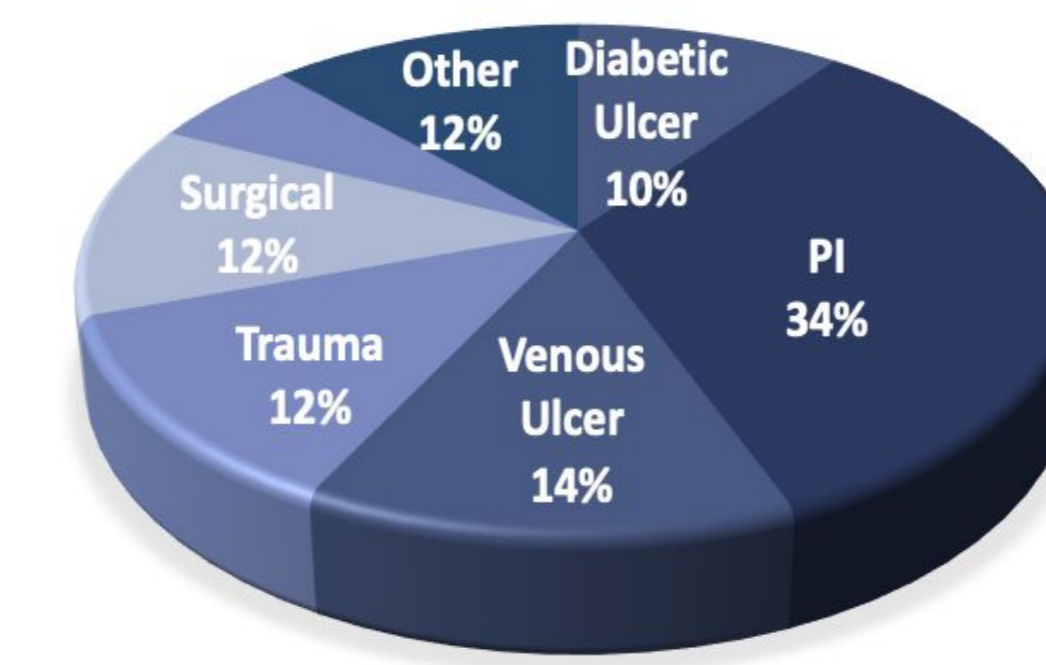
#### Jan-April 2022

- 1,468 patients
- 2,003 episodes
- Mean age: 73 yrs
- 51% females



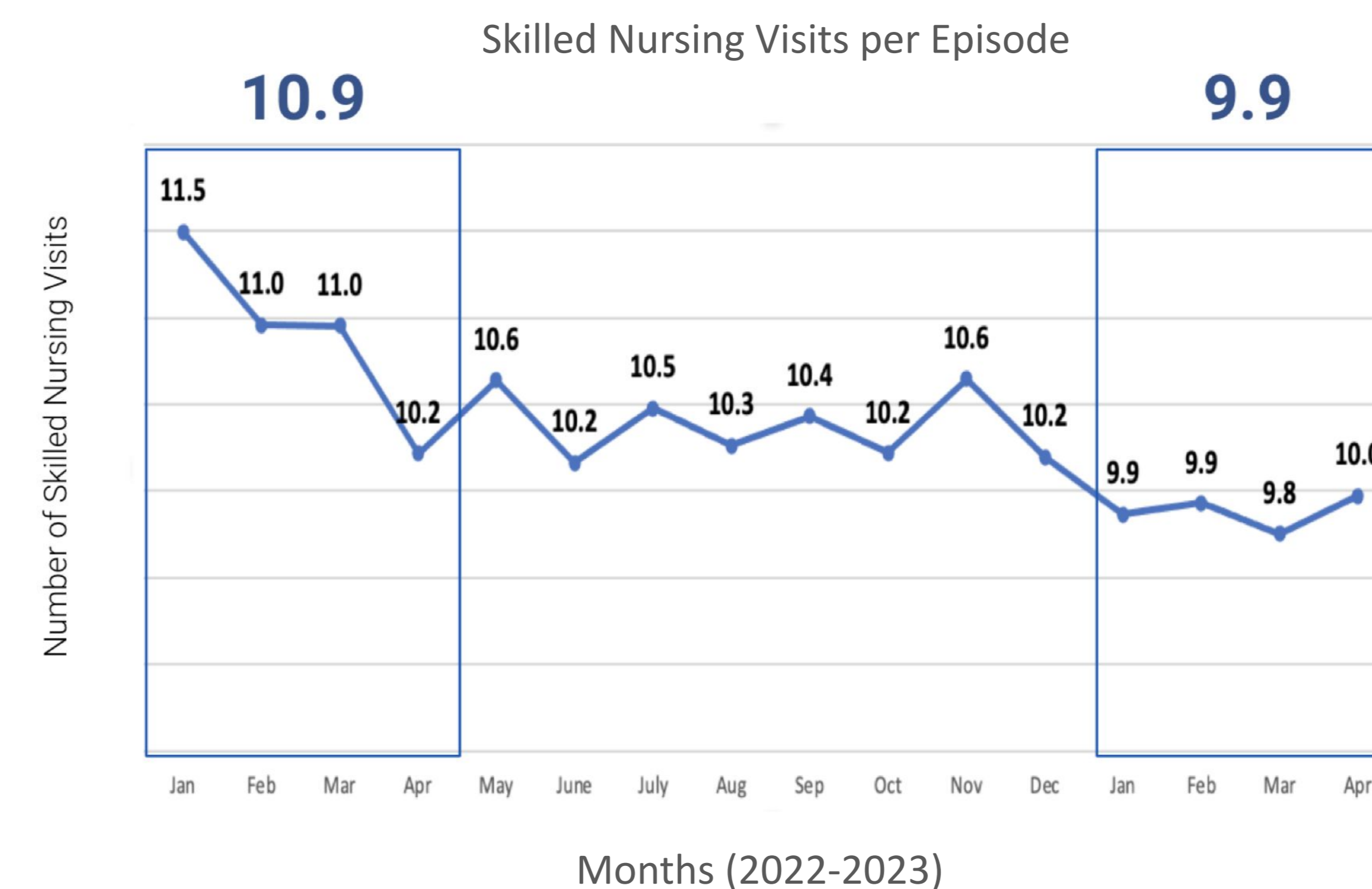
#### Jan-April 2023

- 1,663 patients
- 2,401 episodes
- Mean age: 72 yrs
- 49% females



\*PI=Pressure Injury

### Improvement in Skilled Nursing Visit Utilization (Visits per Episode)

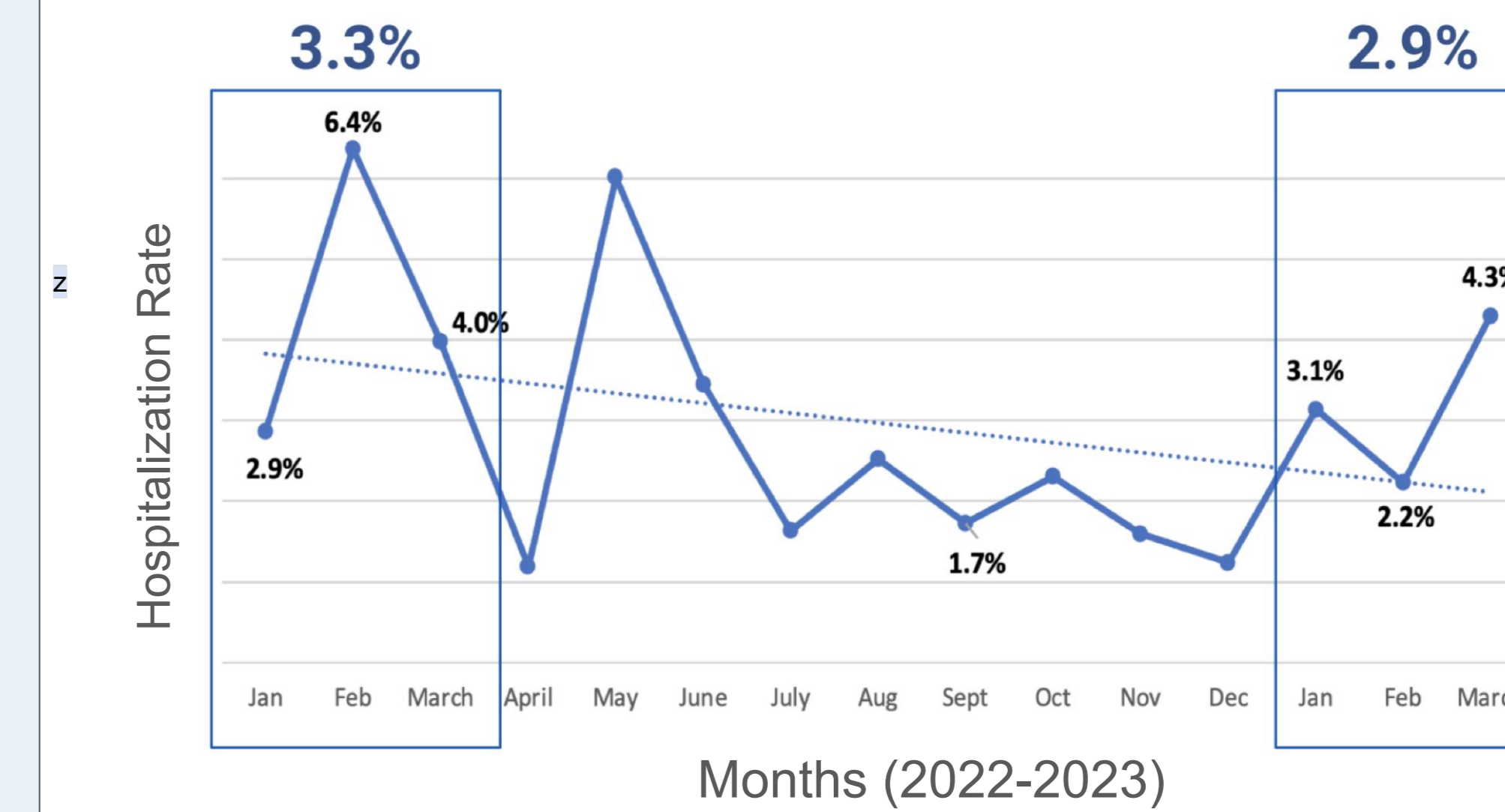


There was a **9.2%** reduction in visits per episode (VPE) for the same four-month period in 2022 vs. 2023 (Jan-April). With a 1.0 reduction in VPE, there is a potential **saving of \$78.45 per wound episode.**

With every 1.0 reduction in VPE, and a potential saving of \$78.45 per episode, there is a potential enterprise savings of \$4.8M annually. This potential savings is based on a total of 60,898 wound care episodes in a year.

### Improved 60-Day Hospitalization Rate Due to Wound

60-Day Hospitalization due to Wounds

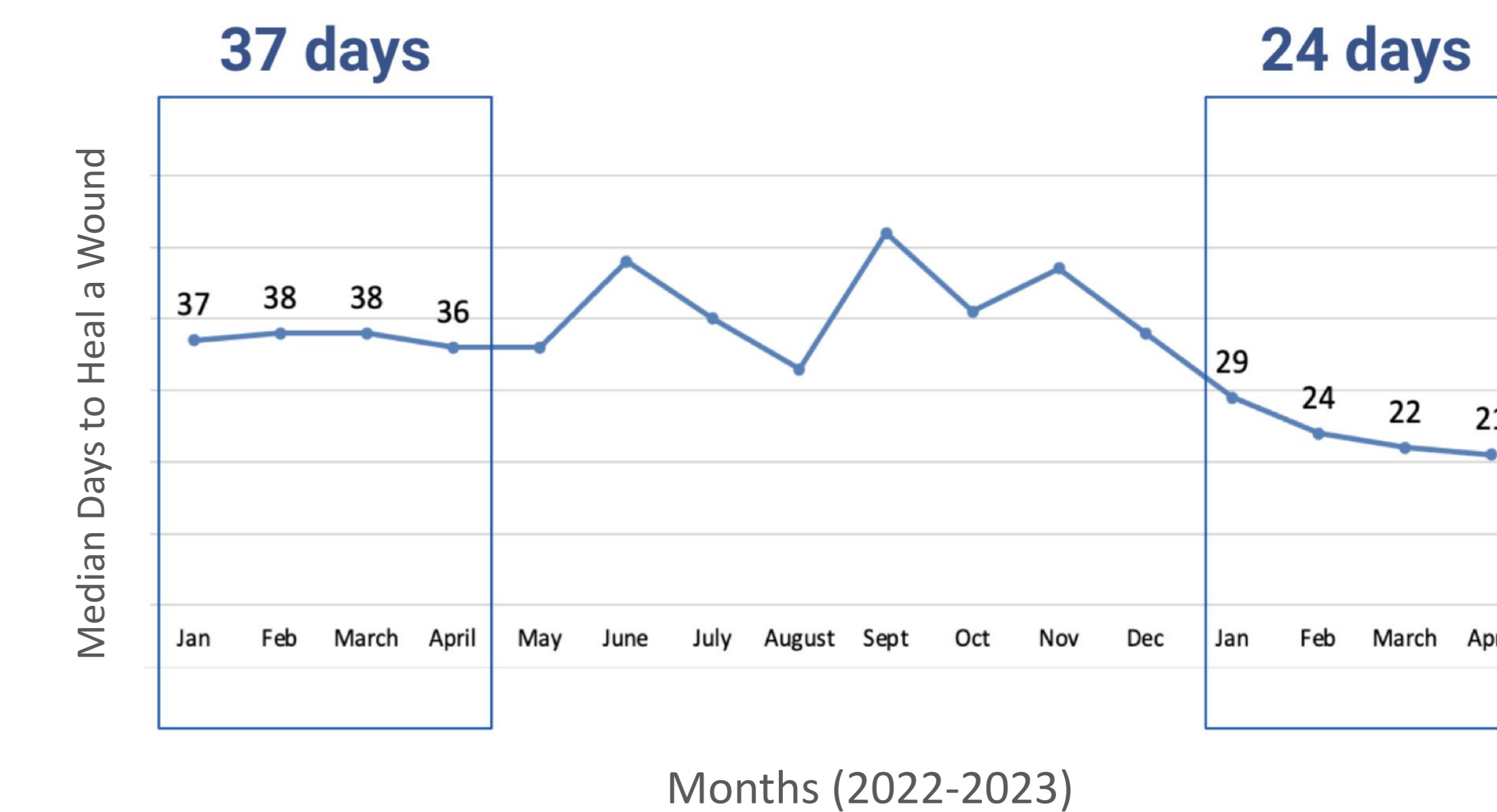


A 0.4% reduction in the 60-day hospitalization rate in the last three months (Jan-March 2023) vs the same period in 2022. This reduction represents a **12.1% improvement.**

An average 4.6 day hospitalization costs \$12,162. This 0.4% reduction translates to \$237,602 potential in savings, and \$3,219,263 potential savings based on annual enterprise wound care episodes.

### Improved Median days to Heal a Wound

Median Days to Heal a Wound



The median days to heal a wound decreased from 37 days to 24 days over the same four-month period from 2022 to 2023, meaning an average of **13 days saved per wound** or **35% faster healing time.**

\* Days to heal is the time between the first and last assessment date for wounds that are marked as "healed."

## Discussion

- By integrating wound management technology into the wound care process, HH settings can streamline their operations and improve efficiencies. Not only does this improve clinical outcomes, but it can also lead to significant cost savings by reducing the number of skilled nursing visits required per episode.
  - This program was implemented in a large and diverse HH setting in the US with significant wound referrals. Its workflow can be easily adapted to other healthcare organizations, including hospitals and skilled nursing facilities to support standardized wound care assessments and optimal management plans.
  - If the 0.4% reduction in hospitalization were applied at an enterprise scale (60,989 episodes per year), there would be 972 fewer wound-caused patient hospitalizations a year.
  - Overall, this model resulted in significant agency cost savings of \$157,135 by reducing VPE and potential system savings of \$237,602 in avoided hospitalization, which could both increase with broader implementation of this digitally enabled wound care program.
- Adopting a comprehensive wound care program where clinicians fully utilize digital tools could maximize productivity has improved clinical outcomes and reduced costs.**

## References

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