

Use Assessment of an Interactive Patient Mobile Application to Support Negative Pressure Wound Therapy

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Introduction

- A companion mobile app (MWH*) was developed for use with a negative pressure wound therapy (NPWT+) unit for patients in the homecare setting.
- The MWH is a resource to engage and support patients through their wound-healing journey (**Figure 1**).
- Patients undergoing NPWT were invited to download the MWH App, which allowed them to:
 - Track their wound healing progress
 - Receive NPWT and general wound care education
 - Obtain help using the NPWT device
 - Order NPWT supplies
- Patients could take a photo of their wound to see side-by-side comparisons and wound progression over time.

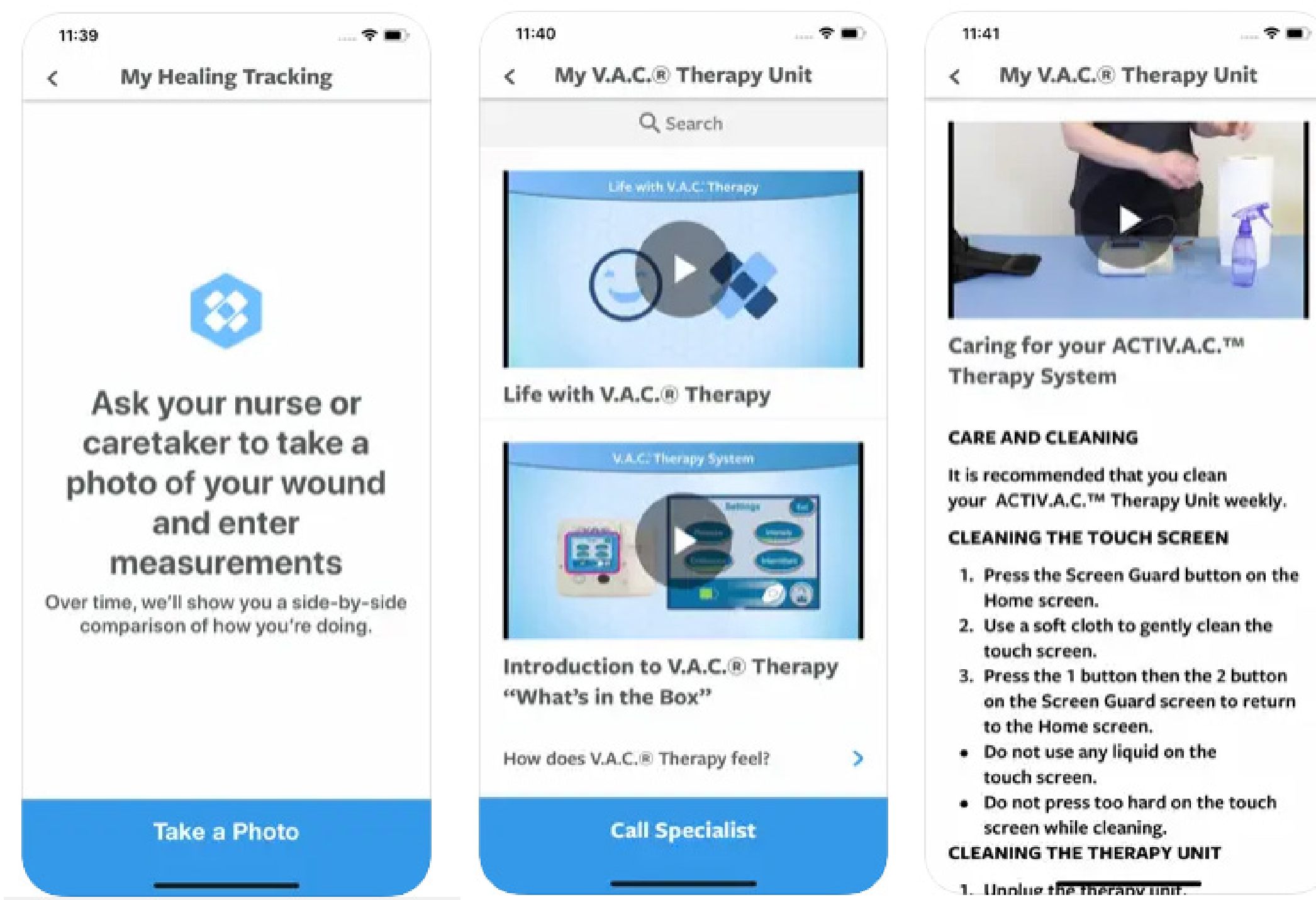


Figure 1. Screenshots from the MWH App, showing instructional content

Purpose

- Patients receiving NPWT with and without MWH use were compared.

Methods

- From January 2022 to February 2024, 4,914 patients used the MWH App compared to 261,667 without MWH.
- Patient age, wound type, insurance type, adherence to therapy, and changes in wound volume were evaluated between the cohorts of patients that did and did not use the MWH App.

Results

- MWH App users were younger (54 vs 60 years).
- MWH App users had a higher rate of commercial insurance (MWH 38.4% vs non-MWH 25.6%; **Figure 2**).
- MWH App users had a lower rate of Medicare/Managed Medicare (35.0% vs 43.9%), which correlates with the differences in age.
- MWH App users had more acute wounds (MWH 77.9% versus non-MWH 69.8%; **Figure 3**).
- The average hours of therapy per day was 17.9 for MWH versus 15.4 for non-MWH.
- The % of patients with an average of 16 or more hours of therapy per day was higher for the MWH cohort (68.8% versus 54.8%).

Results (Cont'd)

- The percentage of patients with 76-100% adherent therapy days (≥ 16 hours) for the MWH cohort was 81.7% compared to 68.4% for the non-MWH cohort (**Figure 4**).
- MWH patients had a larger wound volume decrease at 80.9% versus 76.8% for non-MWH.

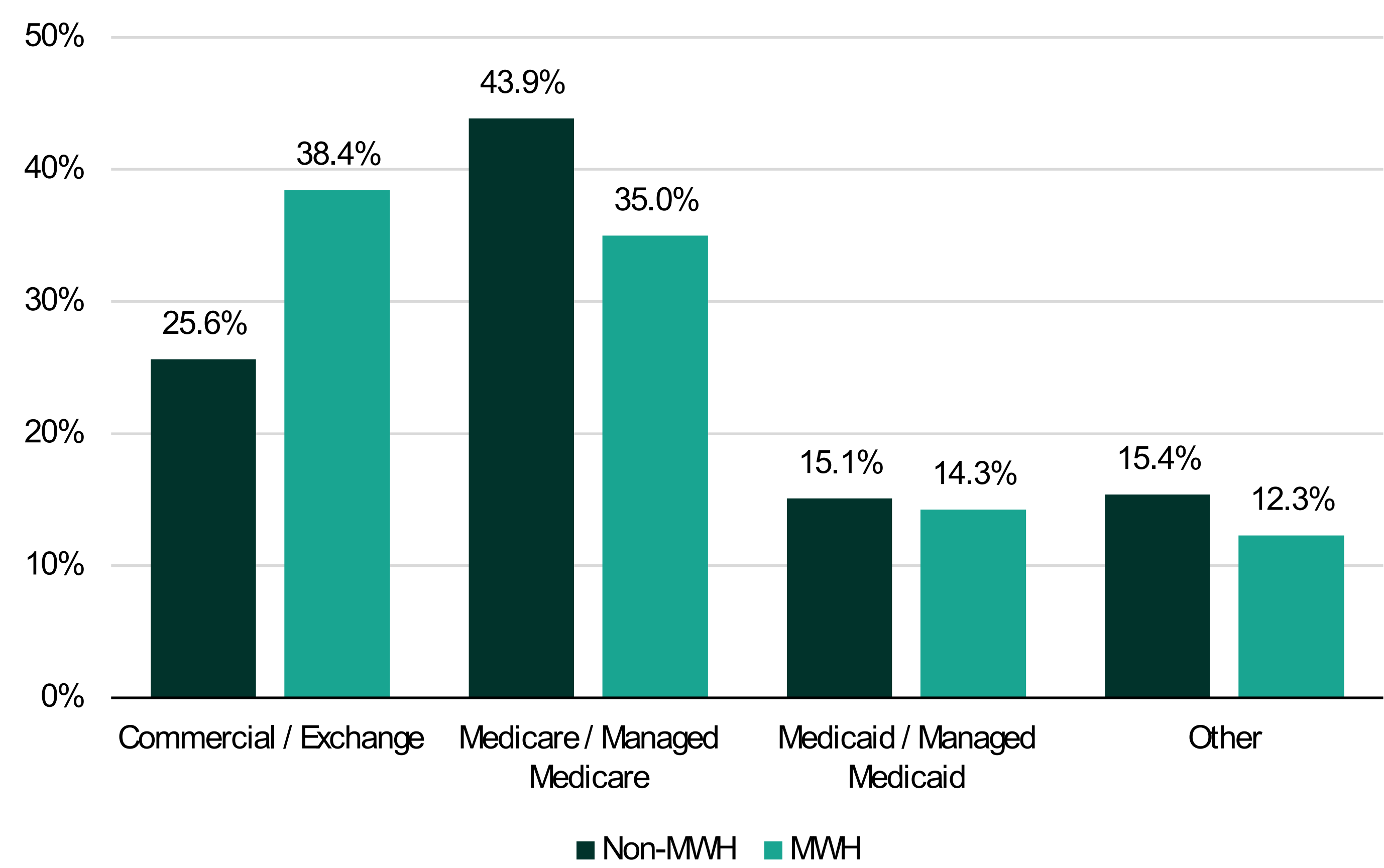


Figure 2. Percentage of patients by insurance type

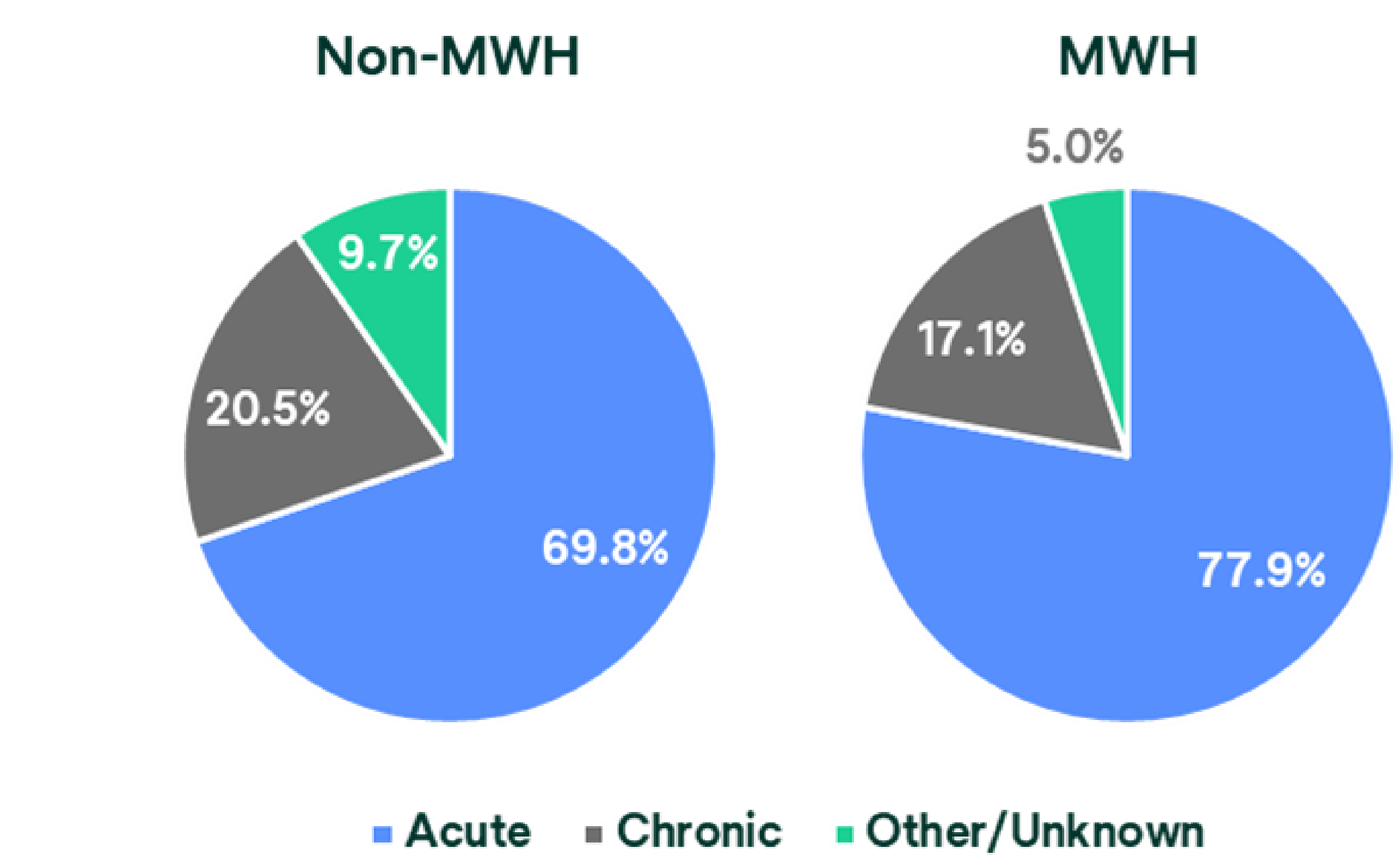


Figure 3. Percentage of wounds by type

Results (Cont'd)

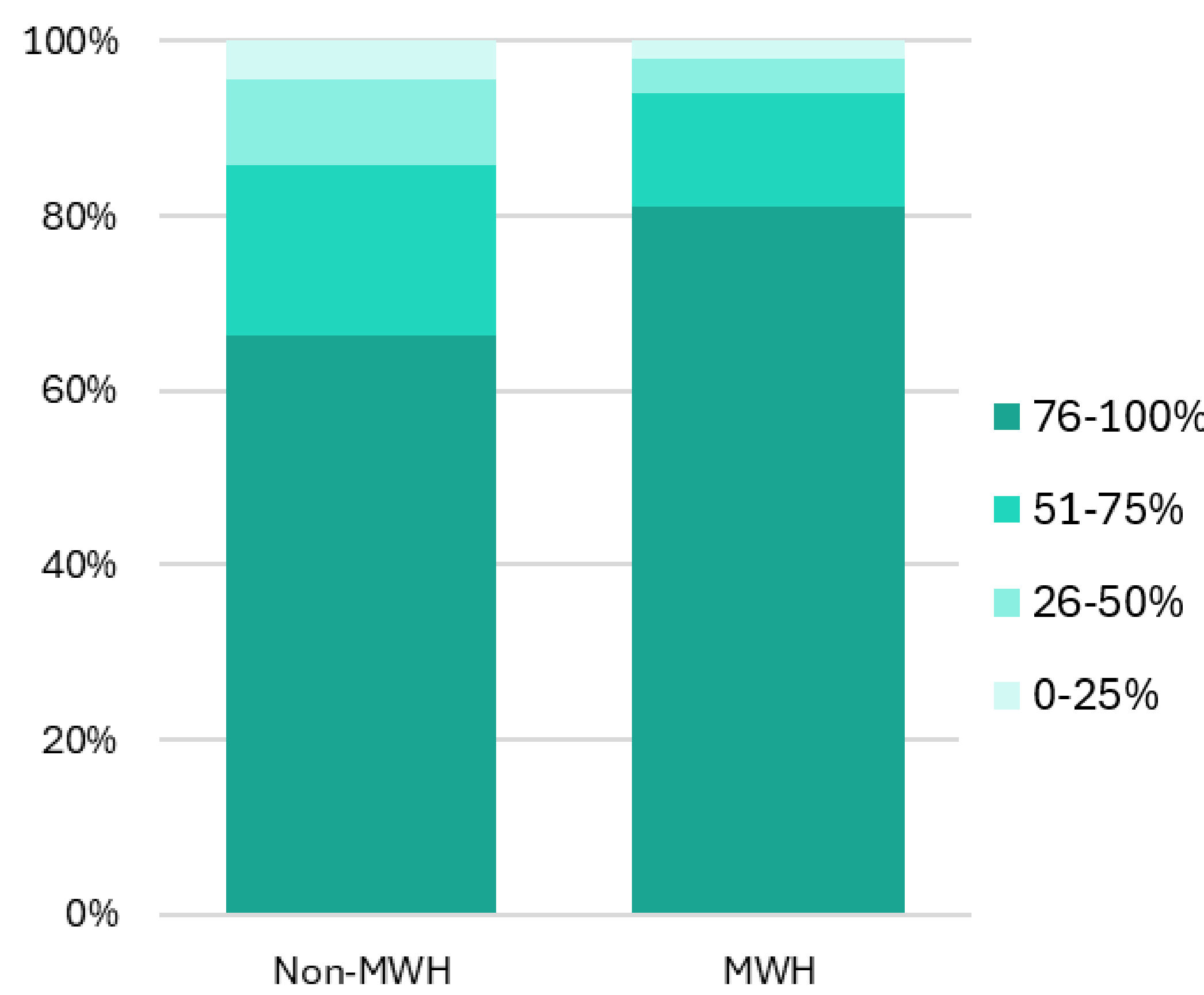


Figure 4. Patient distribution across adherence quartiles (days with ≥ 16 hours of therapy)

Conclusions

- A greater percent of MWH patients met the minimum required hours of therapy than non-users.
- Patients who adhered to longer hours of therapy had a greater decrease in wound volume at therapy discharge.
- Patients can feel empowered with their wound healing.
- Continuous advancement includes keeping up with new methods of communication.
- As we think about the potential expansion of remote monitoring, we can evaluate the potential effect of other additional, supplemental, or replacement technologies.