

Assessing Effects of the IEHTC Program on Clinical Outcomes and Cost of Care in a Healthcare Provider Shortage Area in USA

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Significance

- Located in a healthcare provider shortage area, the Nevada Interprofessional Healthy Aging Network, supported by the federal Health Resources and Services Administration, developed an Interprofessional Education (IPE) and Telehealth Training Curriculum (IEHTC) for geriatrics healthcare providers, especially primary care, to improve age friendly healthcare.
- Medicare payment modifications are decided by the Merit-Based Incentive Payment System (MIPS). Eligible clinicians may get a payment bonus, payment penalty, or no payment modification based on a composite performance score.
- Purpose of this study was to evaluate effects of IEHTC on five MIPS outcome measures, and hospitalization rates and inpatient care cost.

Methodology

- Data:** Five MIPS measures of patients at 3 primary care sites were compared between 2019 (baseline: prior implementing IEHTC) and 2021 (after implementing IEHTC). Furthermore, 50 patients selected through propensity matching with demographic and underlying health conditions, who visited one of the 3 primary care clinics at least once in 2019 were analyzed regarding their hospitalization and inpatient care cost. The cost was estimated based on the Nevada State Inpatient Dataset. All of the 50 patients were aged 65 and older and had diabetes, memory loss, and impaired gait/balance; 25 patients treated by primary care providers with IEHTC training and the remaining 25 were treated by those without IEHTC training.
- Analyses:** Descriptive analyses were conducted on all variables studied. Multivariable models to examine the association among variables.

Results

- An average cost-saving of \$22,135 per patient was observed among those treated by the healthcare providers who received the IPE/telehealth curriculum training than those treated by the providers without the training (Exhibit 1).
- Among the 5 MIPS measures, dementia caregiver education/support, advance care plan, fall risk assessment improved from 24.1%, 1.8%, and 29.1% to 27.3%, 41.7%, and 59.2%, respectively (Exhibit 2-4)
- High-risk medication and uncontrolled diabetes reduced from 56.4% and 22.2% to 26.1% and 16.5%, respectively (Exhibit 5-6)
- In 2021, the hospitalization rate was down from 92% to 80%, and an average cost-saving of \$22,135 for inpatient care per patient was observed among patients treated by healthcare providers with IEHTC training, as compared to those treated by providers without IEHTC training.
- In the area of ACP, no difference in “ever heard of advanced care planning” was observed among the four Asian groups.

Exhibit 1. Impact of IPE and telehealth on hospitalization related cost estimate.

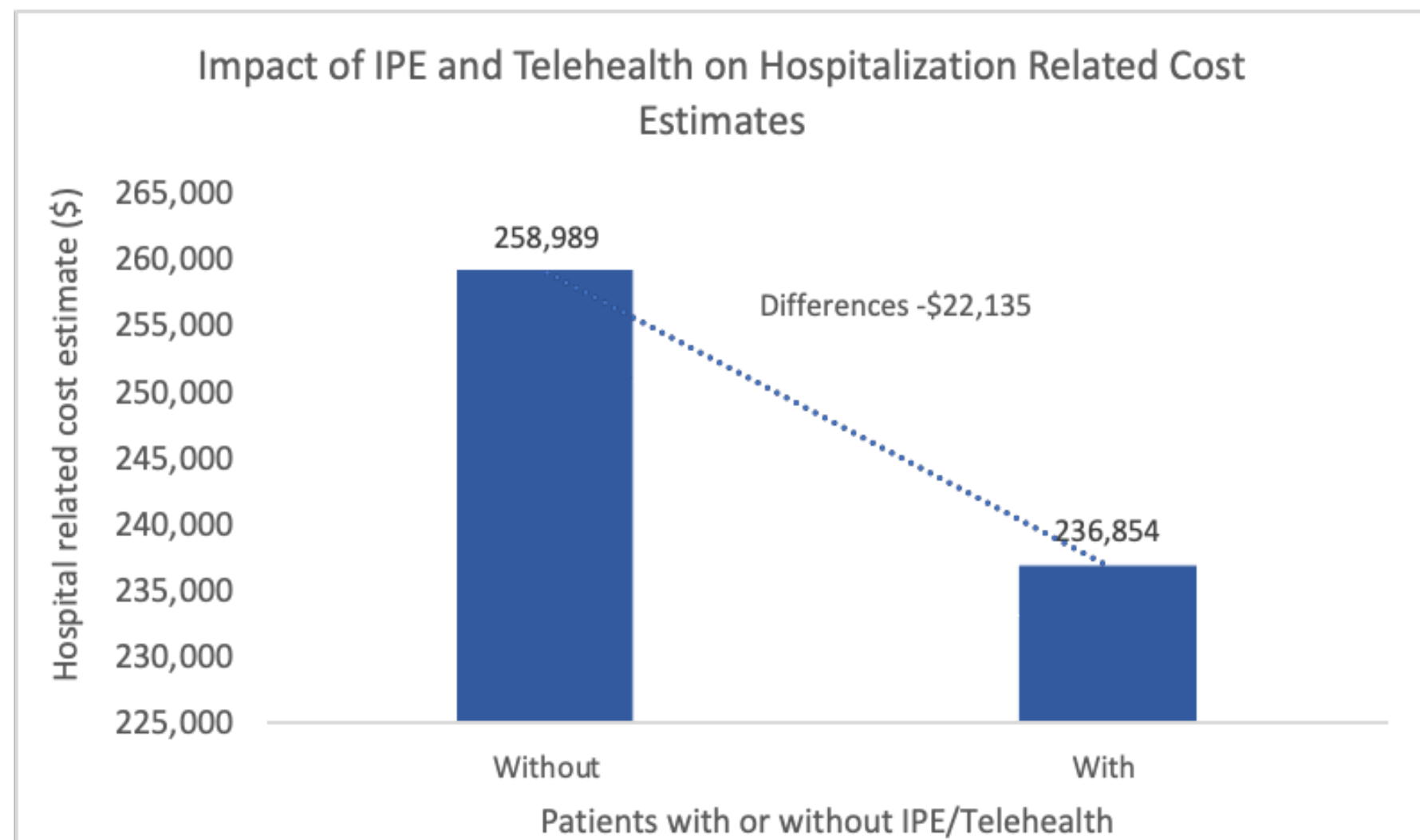


Exhibit 2: MIPS Measure 1: Quality ID#288 Dementia Caregiver Education and Support.

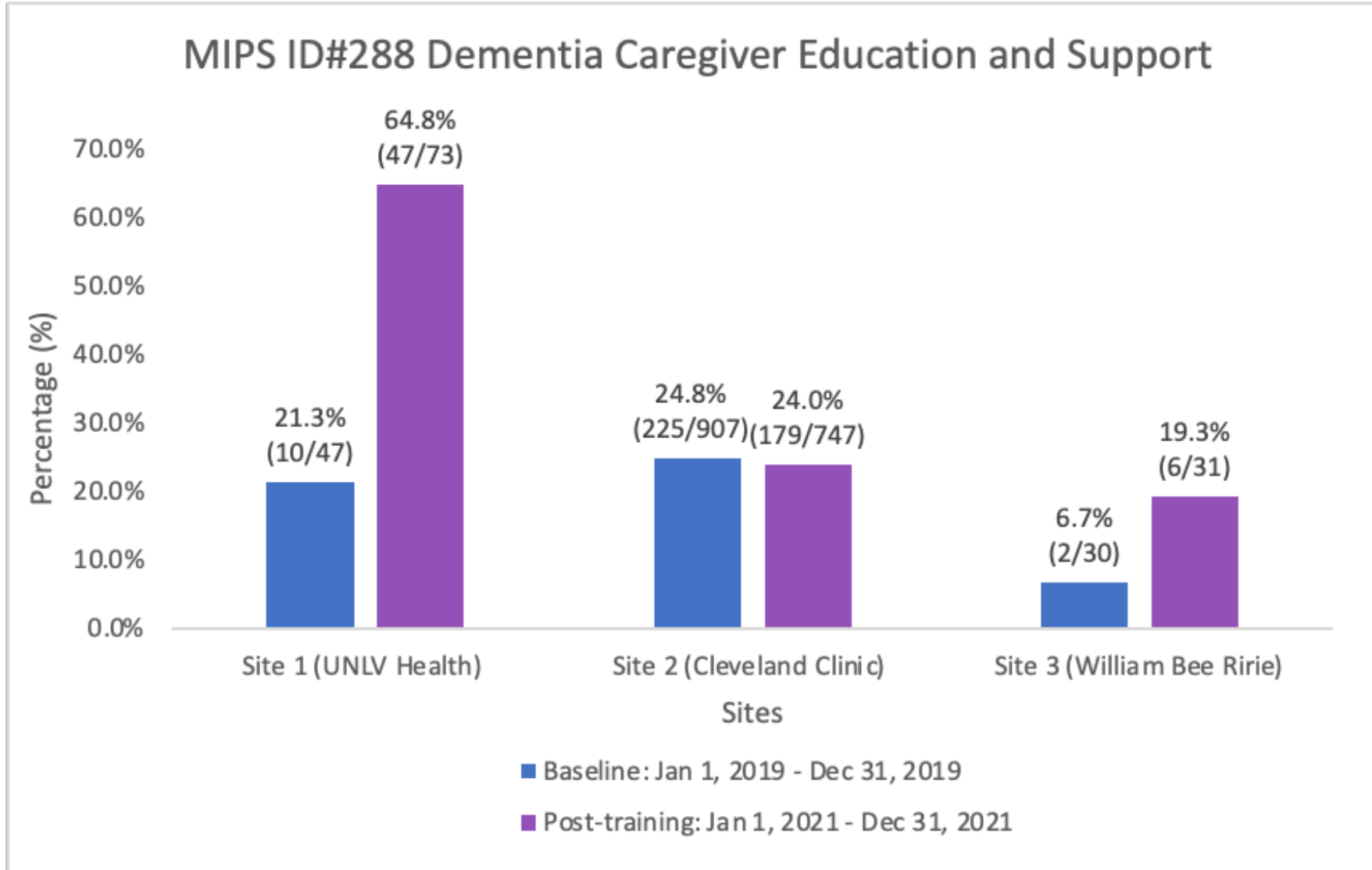


Exhibit 3: MIPS ID#047 Advance Care Plan.

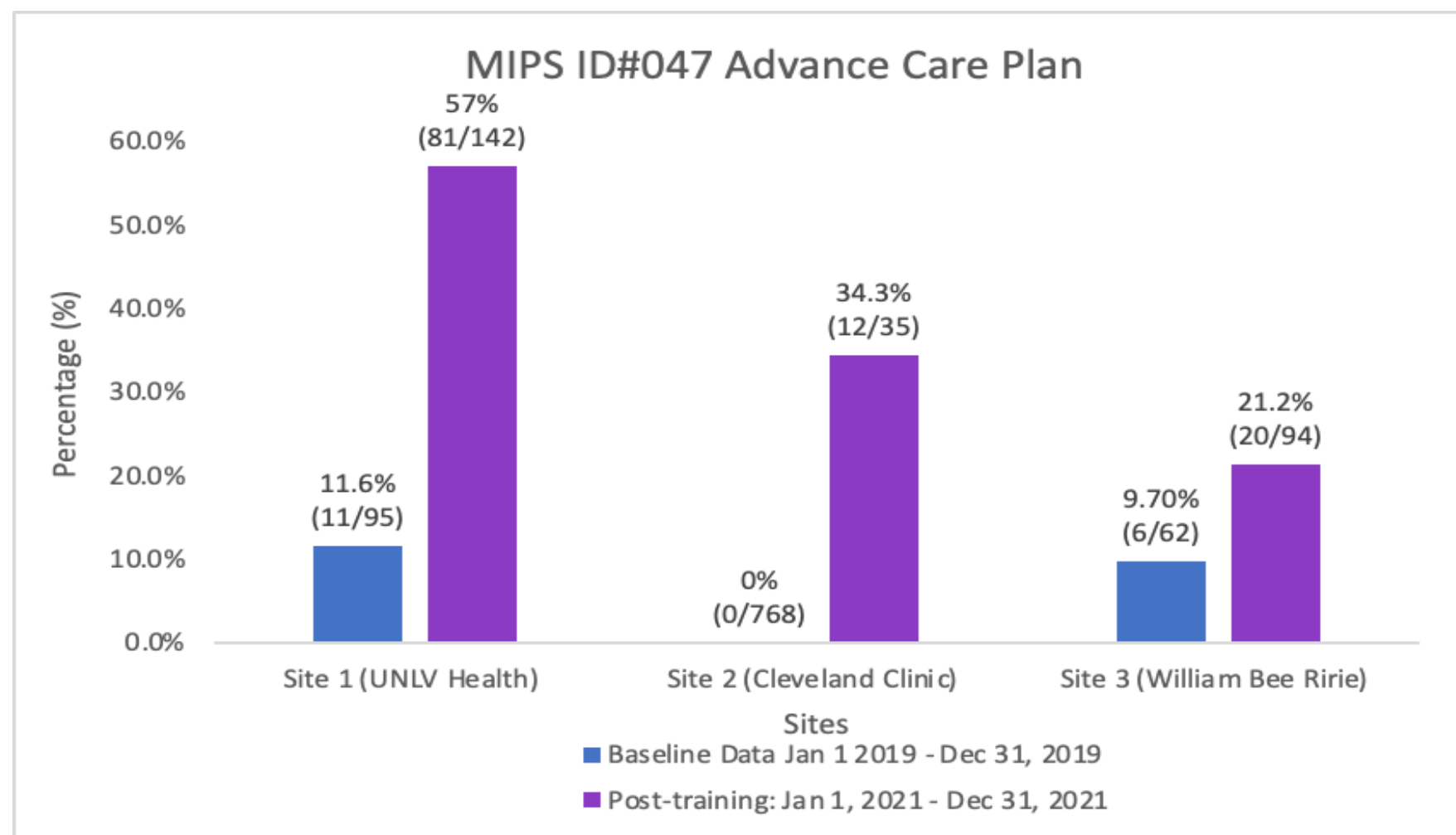


Exhibit 4: MIPS ID#154 Falls Risk Assessment.

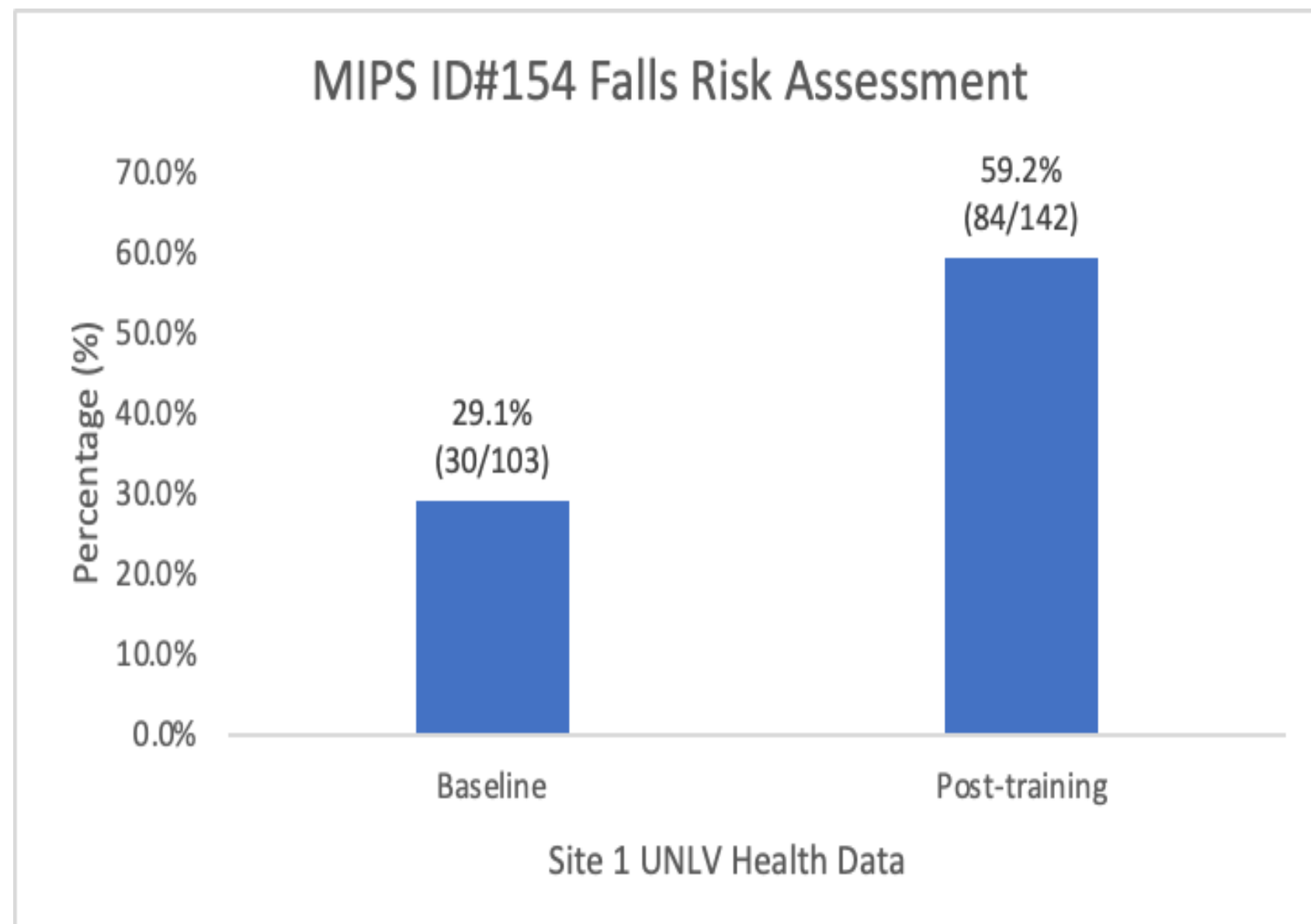


Exhibit 5: MIPS ID#238 High Risk Medication Use.

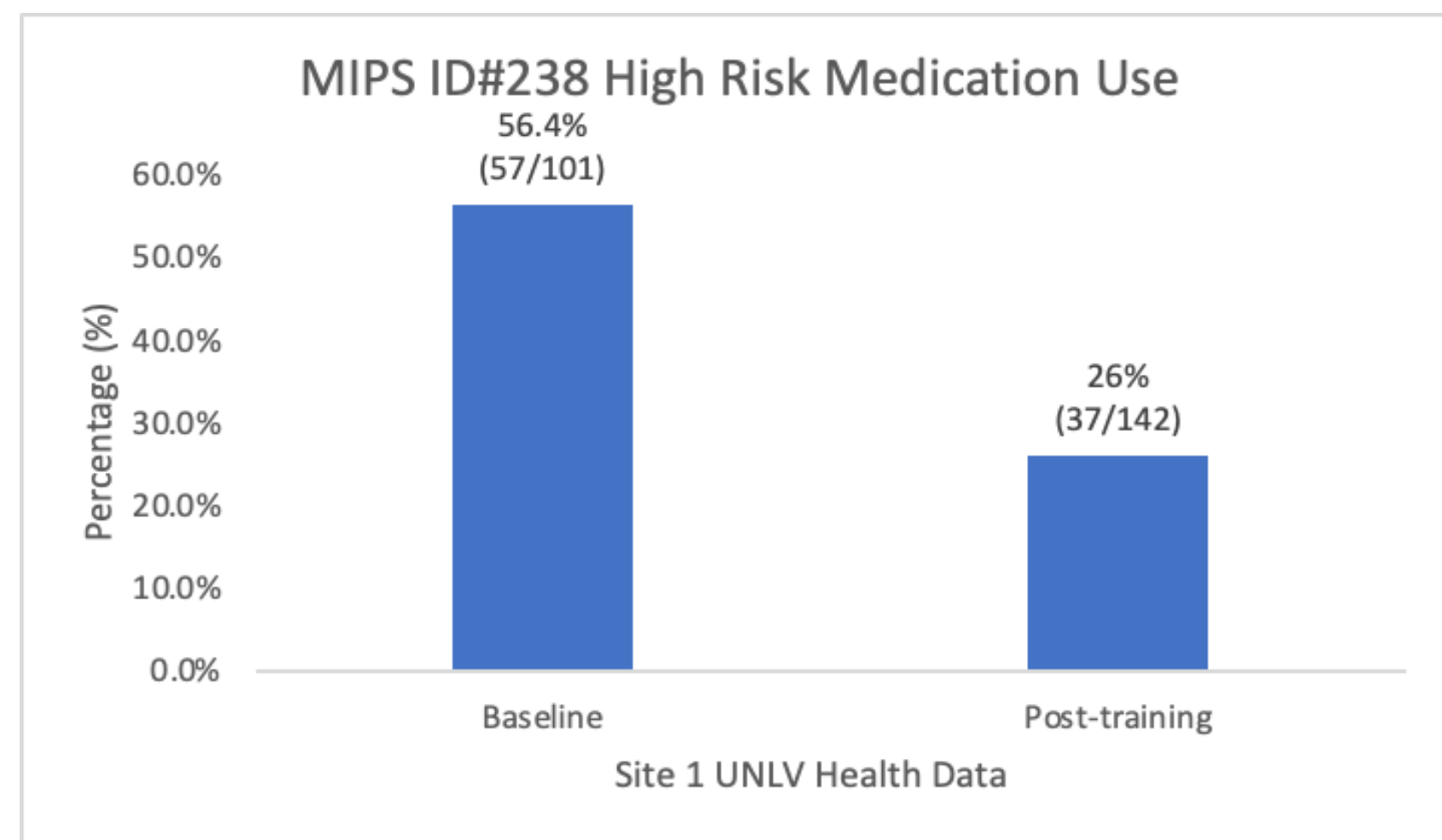
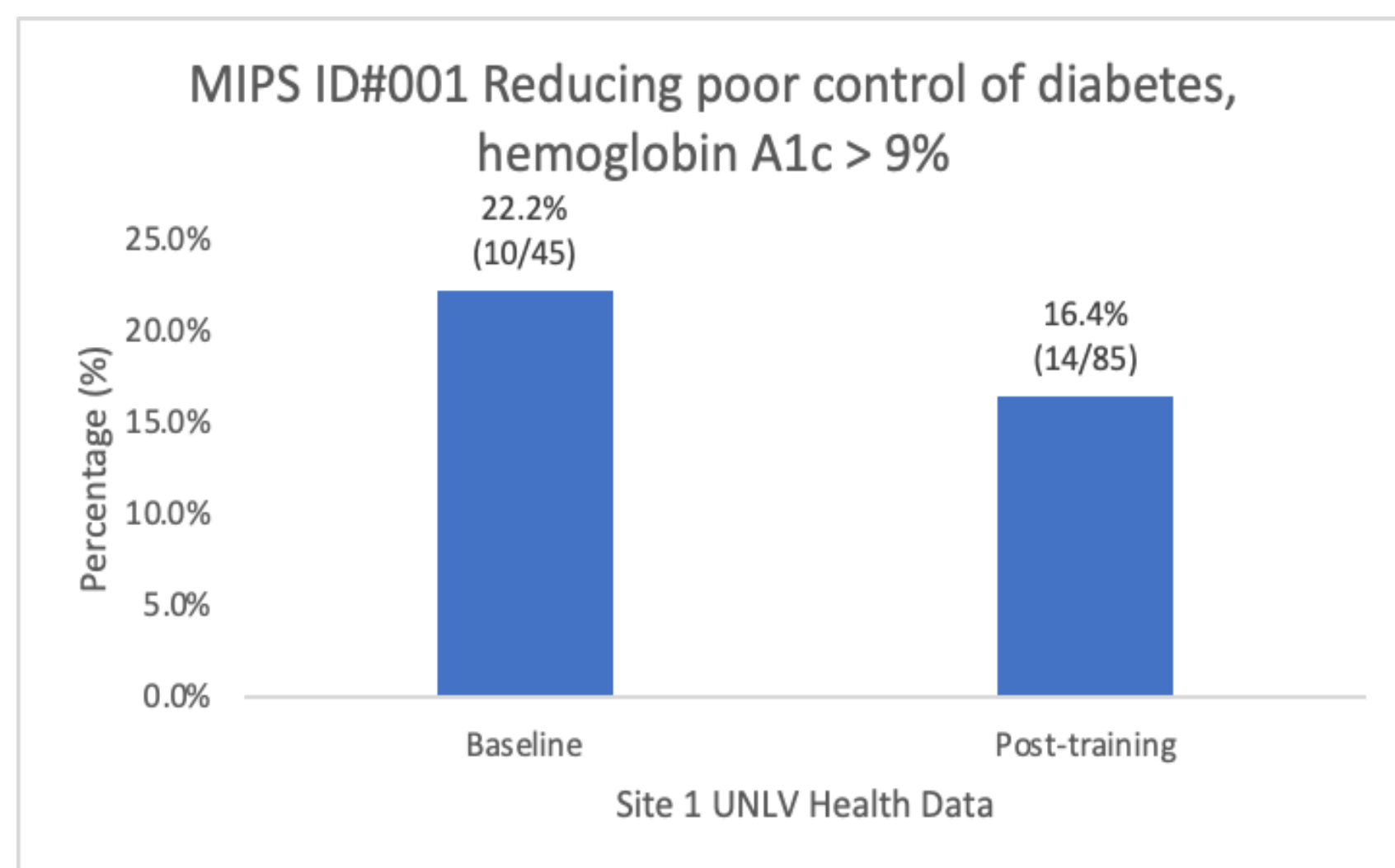


Exhibit 6: MIPS ID#001 Reducing poor control of diabetes, hemoglobin A1c > 9%



Discussion

- The educational interventions for providers have been previously shown to enhance oncology referrals to palliative care may result in improvement of palliative care attributes.
- We observed that providers training using 4M-based IEHTC program was associated with clinical results and cost-effectiveness.
- Our data provided, to the best of our knowledge, the first evidence of impact of 4M-based IEHTC program on clinical outcomes and cost of care in Nevada
- All MIPS measures improved across five areas and at each partner site
- To deal with various patient populations eligible for palliative care, primary care providers should be equipped with more broad and in-depth body of palliative care knowledge.
- However, in some studies, educational programs did not significantly improve primary care providers behavior, knowledge, or patient outcomes.
- Our intervention is an example of importance of educational programs for primary care providers.
- Our research adds to the body of knowledge by analyzing the results of primary care providers interventions on palliative care attributes.

Limitations

This study used limited sample size. Therefore, caution should be taken while inferring causes.

Conclusions

- The IEHTC training program has shown potential in both improving clinical outcomes and reducing cost of care in clinical practice after IEHTC using MIPS outcome measures
- A larger patient population is needed to further evaluate the effectiveness of the program

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