







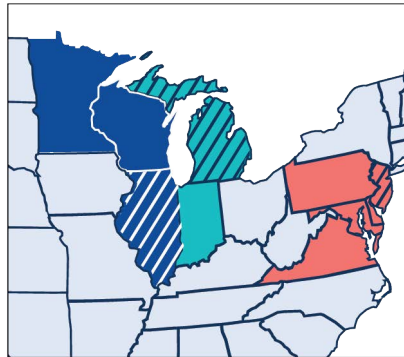
Findings at a Glance

MODEL OVERVIEW

Non-emergent Hyperbaric Oxygen (HBO) therapy exposes a patient’s entire body to pure oxygen under increased atmospheric pressure to promote healing. It is a covered service under Medicare Part B if the receiving beneficiary meets medical necessity criteria. A past GAO audit revealed high rates of inadequate documentation, which suggested improper or questionable use. CMS implemented the Prior Authorization Model for Non-emergent HBO Therapy to test the use of prior authorization as a tool for reducing improper use. The model operated in Illinois, Michigan, and New Jersey between April 2015 and February 2018.

PARTICIPANTS

-  IL
-  MI
-  NJ
- Comparison states**
-  MN, WI (MAC: National Government Services)
-  IN (Wisconsin Physician Services Insurance Corporation)
-  DE, MD, PA, VA (Novitas Solutions)



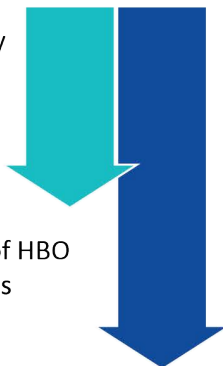
- Outpatient HBO providers located in the three model states submitted prior authorization requests before the start of HBO treatment for five targeted conditions. These include wound or other tissue damage conditions such as diabetic wounds of the lower extremities and osteoradionecrosis (a complication of radiation therapy involving bone death). Generally, the documentation submitted should provide evidence that more conventional treatments were tried and were ineffective before the patient receives HBO therapy.
- The evaluation examined costs and quality of care in all patients with one or more of the five targeted conditions, including both beneficiaries who did and did not receive HBO therapy. HBO use was relatively rare; 5.5 percent of the analytic sample received HBO during the study period. To enable us to observe whether long-term health outcomes were affected by the prior authorization model, we followed beneficiaries from the date of their diagnosis until they died, left the state, or left fee-for-service Medicare.

FINDINGS

DECREASE IN UTILIZATION

17% decrease in probability of HBO utilization among beneficiaries

34% decrease in number of HBO treatments among beneficiaries



DECREASE IN EXPENDITURES



32% decrease in quarterly HBO expenditures per beneficiary

\$56 decrease in quarterly HBO expenditures per beneficiary

No change in overall Medicare expenditures

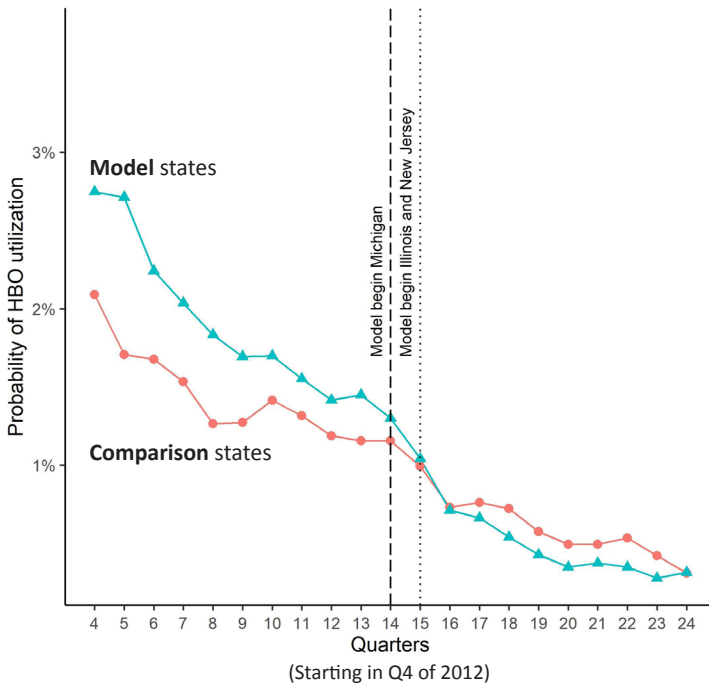


Findings at a Glance

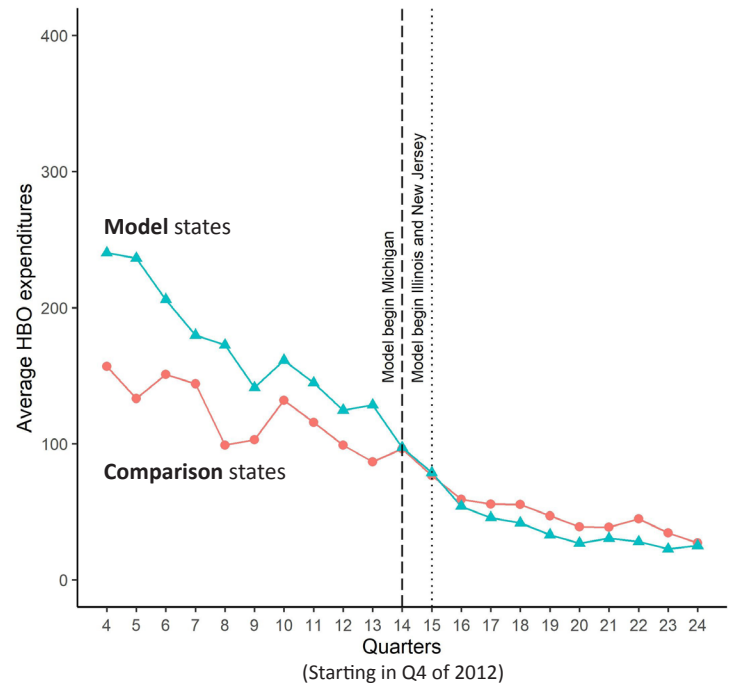
HBO UTILIZATION AND EXPENDITURES

While HBO utilization and expenditures declined in all states during the study period, the model states saw larger decreases following the start of the prior authorization model.

HBO utilization per beneficiary by quarter



HBO expenditures per beneficiary by quarter



QUALITY

- Overall, the prior authorization model did not appear to reduce the quality of care received by beneficiaries or increase adverse events.
 - o There were no impacts on unplanned hospitalizations or mortality.
 - o We found a small (0.03 percentage point) increase in probability of emergency department utilization for diabetic lower extremity wounds.

KEY TAKEAWAYS

The prior authorization model decreased HBO therapy utilization and quarterly expenditures, but did not have a significant impact on total Medicare expenditures. During the period of model operation examined in the final report, the HBO prior authorization model reduced HBO quarterly expenditures by 32.2%, resulting in a reduction of approximately \$307 million in HBO service expenditures for beneficiaries with included conditions. In general, the model did not appear to decrease quality of care or increase the probability of adverse events overall.