A new study about the use of oxygen to treat chronic obstructive pulmonary disease from The University of Texas Medical Branch at Galveston found that the majority of patients receiving oxygen therapy were low-income, non-Hispanic white females about 75 years old with two or more other health conditions.

The UTMB study is the first to describe the current use of oxygen therapy among COPD patients in a large, nationally representative sample of U.S. patients. Prescription of oxygen therapy currently stems from two small landmark studies conducted more than 40 years ago and was comprised of largely white males with an average 65 years without serious medical comorbidity. The current COPD population receiving oxygen therapy has changed considerably since then. The findings are detailed in *PLOS One*.

Oxygen therapy improves survival and quality of life in patients with COPD. In 2008, more than 1.4 million Medicare patients received oxygen therapy at an estimated cost of $2.9 billion, which accounted for more than 45 percent of Medicare medical equipment expenditure that year. Of these, 82 percent have a diagnosis of COPD.

The study examined national trends and factors associated with the use of oxygen therapy in a national sample of 329,482 Medicare beneficiaries with COPD between 2001 and 2010.

From 2001 to 2008, the number of COPD patients who were prescribed oxygen increased by more than 8 percent. There are several reasons for this increase. Although the frequency of COPD in the U.S. remained stable, the survival of COPD patients has improved. Particularly, women have longer life expectancies and, since 2007, women affected by COPD outnumbered men, which may account for the rise in oxygen use in women.

After 2008, the percentage of patients receiving any oxygen therapy overall dropped slightly over the next two years. However, the number of patients who received a prescription for oxygen therapy at least 11 months per year declined more steeply, by more than 8 percent.

The decline seen after 2008 may be due to health care policy changes addressing oxygen therapy qualification and cost reimbursement. For instance, in 2006, as part of the Medicare and Medicaid Deficit Reduction Act, oxygen equipment rental programs began limiting reimbursement of oxygen and supplies at 36 months. The first year that the rental cap was put in place was 2009.

"Overall, from 2001 to 2010, we report an increase in oxygen therapy", said Dr. Shawn Nishi, assistant professor in the internal medicine Division of Pulmonary, Critical Care and Sleep medicine. "Oxygen use may be increasing because physicians and patients are becoming more aware of the benefits in COPD and there is a decreased perception of oxygen therapy as a stigma."

Provided by University of Texas Medical Branch at Galveston