



## How a coordinated pilot program - from acute to post-acute care - reduced COPD readmissions and costs in less than one year

### Initiative

Integrated COPD Care Initiative, Alabama, United States

### Challenge

- An estimated 30-50% of people with an existing diagnosis of COPD and asthma are misdiagnosed, contributing to unnecessary medical costs, including repeated hospital readmissions.<sup>1,2</sup>
- The Centers for Medicare & Medicaid Services (CMS) began penalizing hospitals in 2015 for readmissions within 30 days of patients with acute exacerbations of COPD.

### Solution

Integrated COPD Care

### Results

- 80% reduction in acute 30-day COPD readmissions
- ≈\$1.3 million saved in acute 30-day COPD readmissions
- >70% reduction in all-cause 30-day readmissions
- ≈\$4.4 million saved in all-cause 30-day readmissions

### Reducing hospital readmissions with integrated COPD care

The need to improve outcomes and control healthcare costs in patients with Chronic Obstructive Pulmonary Disease (COPD) has never been greater.

The Integrated COPD Care Initiative was a 2017 pilot program aimed at reducing hospital readmission rates and acute to post-acute care-associated costs in patients with COPD, through ongoing health monitoring and education after hospital discharge.

Through the deployment of evidence-based care strategies and pathways - coordinating care from the hospital to the home - the Initiative achieved impressive 30-day readmission and cost reductions after just three fiscal quarters.<sup>3,†</sup>

The Integrated COPD Care Initiative in Alabama involved a Home Medical Equipment (HME) provider, a hospital system, and a consulting and analytics firm using care management software.

## Challenge

An estimated 251 million people worldwide suffered from Chronic Obstructive Pulmonary Disease (COPD) in 2016<sup>4</sup>. Despite advances in care, too many patients continue to suffer through repeated hospital readmissions, increasing the burden COPD places on their lives. Approximately 30-50% of COPD and asthma patients are misdiagnosed<sup>1,2</sup>.

U.S. hospitals are also facing increased financial pressure to improve outcomes for COPD patients and curtail costs of care. In 2015, the Centers for Medicare & Medicaid Services (CMS) began penalizing hospitals or denying reimbursement for readmissions within 30 days in patients with acute exacerbations of COPD.

## Solution

In the U.S. state of Alabama, a hospital system collaborated on an initiative known as the Integrated COPD Care Initiative, to develop an end-to-end integrated COPD care program.

The objectives of the program aligned with value-based care: reduce avoidable readmissions and associated costs, improve health outcomes, and improve patient engagement in the post-acute setting.

The program included evidence-based strategies for care transition management, care coordination, and patient engagement. Focus areas included:

- Early detection of COPD within a patient's hospital stay
- Ongoing home monitoring after hospital discharge, with HME respiratory therapists (RTs) transmitting data into the hospital electronic health record (EHR)
- Patient education
- Ongoing analysis of patient data
- Continuous assessment of the efficacy of clinical pathways

After thorough 18-month preparation, a pilot launched in 2017 with more than 890 patients.

## Results

Analysis of existing patient data revealed an even bigger opportunity that went beyond known COPD patients who already received treatment for their condition. Almost 1 in 10 patients who were readmitted to the hospital (irrespective of cause) were identified with COPD as a primary diagnosis, indicating the condition may have previously gone unrecognized.

By following the approach outlined above, the Integrated COPD Care

Initiative contributed to earlier detection of COPD and an increase of previously unidentified COPD diagnoses.

After COPD diagnosis in the hospital, patients received increased attention from HME RTs following discharge. In addition, regular data transmission into the EHR by HME RTs offered opportunities to detect worsening conditions before patients had to be readmitted. As a result, RTs had a key role in helping reduce hospitalizations and related costs.

Over three fiscal quarters, the Integrated COPD Care Initiative yielded a >70% reduction in overall (all-cause) readmissions and ≈\$4.4 million in total cost savings. The number of COPD readmissions even dropped by 80%, corresponding to ≈\$1.3 million in cost savings – showing the significant benefits of an integrated approach to COPD care management.

Critical to the success of the Initiative was its comprehensive nature that spanned the entire care pathway, and the commitment from all parties involved to break new ground in the transition from fee-for-service to value-based care.

1. REDEFINE Study. <https://clinicaltrials.gov/ct2/show/NCT03137303>
2. <https://www.sciencedaily.com/releases/2016/10/161013141231.htm>
3. Alabama Hospital 2017 COPD Care Management Initiative. Philips Respironics solely funded the consulting and analytics firm for implementation and the care management software solution.
4. WHO. [https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-\(copd\)](https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-(copd))

**80%** reduction in acute 30-day COPD readmissions

**≈\$1.3 million** saved in acute 30-day COPD readmissions

Results achieved within three fiscal quarters.<sup>3</sup>

**>70%** reduction in all-cause 30-day readmissions

**≈\$4.4 million** saved in all-cause 30-day readmissions

