

Lung Cancer Measures

WHAT IS THE PROJECT?

Lung cancer is the second-most common cancer in the United States and the leading cause of cancer death. Non-small cell lung cancer (NSCLC) is the most common type of lung cancer, while small cell lung cancer (SCLC) comprises less than 20 percent of lung cancers. Due to its high disease burden, lung cancer can have a profound effect on patients' day-to-day lives, including a high financial burden. Screening and treatment advances are leading to improved patient outcomes and longer survival. However, disparities in the quality of cancer care along with variations in access to care and survival outcomes persist, and there are no nationally adopted survival measures for lung cancer. Establishing disease-specific, patient-centered measures that examine survival and patient-reported outcomes (PRO) in lung cancer will address high-priority gaps in oncology measurement.

This NQF Measure Incubator® project facilitated the development of needed performance measures that capture the “patient voice” (i.e., patient-reported outcomes or PROs) and evaluate survival outcomes in lung cancer.

PHASE 1: STRATEGY SESSIONS

NQF convened a Measure Incubator strategy session with a multistakeholder Expert Panel in September 2017. At this meeting, panelists identified extensive disease SCLC as an area under-represented in performance measurement and explored a range of measures focused on overall survival, improving quality of life, and goal-concordant care for this population.

The Panel emphasized that quality of life is as important as quantity of life and that survival measures alone do not provide a comprehensive view of quality. The Expert Panel identified three measure concepts that could become performance measures for SCLC. Panelists recommended a national focus to improve data collection and address persistent data issues, including the availability of structured data and vital status, in particular, such as through collaboration with electronic health record vendors.

At a second strategy session in April 2018, panelists explored measures for NSCLC, including survival and patient-reported outcome performance measures

(PRO-PMs), focused on treatment toxicities and health-related quality of life. The Panel noted that measures should account for symptom fluctuation and incorporate individual patient goals and preferences. The Expert Panel identified four measure concepts that could become performance measures for NSCLC, including patient-reported measures, and the Panel recommended further exploration of data challenges around attribution and timeliness of data as well.

NQF engaged a broad-based stakeholder group in this Measure Incubator project, including patients and caregivers, patient advocates, specialty society representatives, measure developers, health services researchers, and oncologists.

PHASE 2: MEASURE INCUBATION

Building on the recommendations from the NQF-convened strategy sessions, NQF prioritized three measure concepts for initial development. One was a PRO-PM (patient-reported symptom burden measure among NSCLC patients receiving chemotherapy),

and the other measures addressed overall survival rates for NSCLC and SCLC. Substantial upfront effort focused on investigating various data sources to support measure development (particularly for the survival measures). KM Healthcare Consulting led initial development of these measure concepts, along with a **melanoma survival measure**, into fully specified performance measures, gathering input from expert panelists and other clinical experts to develop pre-testing specifications. Experts were enthusiastic to see progress in establishing national measures for lung cancer survival and a PRO-PM focused on chemotherapy-related side effects. Experts suggested that this work could meaningfully contribute to cancer survival measurement by exploring persistent measurement challenges related to small population sizes and the definition of care teams for purposes of accountability.

Building on the initial development work, **Mathematica** tested the three lung cancer measures along with the **melanoma survival measure**, using a combination of national and state cancer registry data and registry-linked databases.

Mathematica began testing of the PRO-PM and realized that few clinical practices were not using validated patient-reported outcome measures (PROM) to assess symptom burden in patients with NSCLC receiving chemotherapy. As a result, Mathematica shifted to creating a building block process measure focusing on patients' completing a validated PROM at various points in time during their oncology treatment. This measure would ultimately prepare the field for the development and implementation of the PRO-PM in future.

This project was completed in October 2021.

These measures are critical building blocks in improving quality of care in lung cancer by evaluating actionable, patient-centered outcomes that matter most to individuals with lung cancer.

NQF delivered this project through the Measure Incubator with financial support from **Bristol-Myers Squibb (BMS)**. In accordance with the **NQF Measure Incubator Conflict of Interest Principles**, BMS did not influence the outcomes and activities associated with this project. NQF conducted this project in parallel with a **melanoma survival measures** project to maximize efficiencies in measure development and testing.