

# Case Study

## Integrated Care Model Aims to Create Seamless Care for COPD and Asthma Patients

### Client

A primary care trust (PCT) in the North West of England responsible for the health of 220,000 people.

### Client Background and Challenge

The client was formulating a PCT-wide strategic plan for respiratory diseases to respond to the large local disease burden and high emergency admission rates to its local acute provider. Sg2 conducted a comprehensive health needs assessment and developed high-level service specifications for an integrated care delivery model that aimed to create seamless patient care across the entire care continuum. The team quantified the scale of disease burden, identifying gaps within the current care environment from disease prevention to rehabilitation and recommending a customised and cost-effective service provision model to manage these patients effectively.

### Sg2 Approach

Sg2 examined the care continuum through quantitative analyses of primary and secondary care utilisation data, extensive stakeholder, patient and clinician interviews (both primary and secondary care), and a close collaboration with the PCT's public health, clinical governance and information teams. This enabled Sg2 to develop a comprehensive understanding of the current care organisation and interaction patterns within and between providers, and to make recommendations for the organisation and functions of a future model of care. The engagement addressed the following:

- Estimated the true prevalence of disease within the PCT population and identified 51% of COPD sufferers and 34% of asthma sufferers currently not on general practitioner (GP) disease registers.
- Assessed the clinical and financial impact and cost-effectiveness of an expanded influenza immunization scheme to prevent secondary infection, triggering further exacerbations.
- Analysed 4 data sets (GP records, admitted patient care, accident and emergency, and outpatient data sets) to understand care practice patterns for specific patient groups across the continuum.
- Identified key gaps within the current care pathways, including a lack of community consultant leadership and weak linkages between secondary and primary care coordination.
- Provided recommendations for the organisation and functions of a future care delivery model to address the gaps in the current care pathway and ensure that the deployed resource intensity matched a patient's condition acuity.
- Provided specifications for a universally accessible patient register across the entire PCT.
- Forecasted the new care model to reduce inpatient COPD utilisation by 55% and inpatient asthma utilisation by 26% over a 10-year period, as compared to population-based projections.
- Provided key process indicators (ie, self care plan targets, smoking cessation counseling discharge targets, and outreach event targets) and key outcome indicators (ie, spell volume reduction targets, readmission reduction targets, urgent call reduction targets, and patient satisfaction targets) based on realistically achievable thresholds drawn from the forecast.
- Conducted a net present value analysis over 10 years demonstrating returns of nearly £1 million related to COPD pathway redesign, and over £3 million related to asthma pathway redesign, while considering initial investment requirements in primary and secondary care and prevention schemes.
- Provided a realistic implementation timeline for the database and future care delivery model.

### Measurable Results

Sg2's methodology was validated by expert-led discussions and had immediate resonance with local clinicians and managers. The PCT incorporated findings from Sg2's analysis to create a PCT-wide strategic plan for respiratory diseases.

"As part of our continuing work to build on our understanding of the health needs of our population with asthma and COPD, we were able to draw on Sg2's independent expertise to help explore our local data intelligence in more detail. Sg2 supported us to strengthen our knowledge of the future challenges that we face within a rapidly changing health care environment and the team reflected our energy and commitment to driving forward the commissioning of first-class health services for local patients with asthma and COPD."

**PCT's Public Health Director**

June 2010

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MK390-INT-1010

