

# Respiratory Disease

Lumantia and The PHARMO Institute delivers research insights into Respiratory Disease and Asthma.

## Disease & treatment characterization

- Patient demographics
- Diagnoses and symptoms
- Disease severity (i.e., GOLD status)
- Lung function results (e.g., FEV1, FVC, PEF)
- CCQ and ACQ scores
- Acute exacerbations
- Clinical characteristics (smoking, BMI)
- Comorbidities
- Medication use

## Outcomes, burden of disease, & healthcare resource utilization

- Drug utilization
  - Respiratory drug treatment (e.g., anticholinergics, corticosteroids, beta-2 agonists.)
  - Adherence/persistence
  - Co-medication
- Moderate/severe exacerbations
- Healthcare resource utilization
  - Medication use
  - GP visits (including phone, email, home visits)
  - Hospitalizations
- Mortality

## Data collection across multiple care settings

- Data sources are linked on a patient-level:
  - GP
  - Hospital
  - In- and out-patient pharmacy
  - Clinical laboratory
- Malignancy, pathology
- Social demographics
- Mother and Child linkage data



## What makes us different



### High patient counts in COPD & Asthma

- >80,000 COPD
- >200,000 Asthma
- 20-year average look-back



### A unique, longitudinal, and clinically rich dataset

- 2002 onwards (20+ years)
- Ability to follow through multiple healthcare settings
- Data regularly updated and expanded to include new patients and follow-up information

# About PHARMO



The PHARMO Institute is a **global leader** in drug safety and outcomes research



**The Netherlands has an excellent healthcare system** and is a major hub for clinical trials



Dutch data is **representative of Western Europe** and can be used in global studies as a robust proxy or complement to EU-5



PHARMO maintains an extensive network of data partners across NA and Europe. As a founding member of SIGMA Consortium, we can access diverse sources of **pan-European real world data (RWD) on >100 million patients**



Our capabilities and experience enable us to deliver on a **wide range of real world evidence (RWE) use cases**



## ⇒ Why choose us?

We can be counted on for service and quality. We utilize proven processes supported by technologically advanced resources to produce high-quality services, with guaranteed satisfaction.