



## Centre of Applied Respiratory Research Innovation and Impact

### Vision

The UK has some of the poorest health outcomes for respiratory disease in Europe, with the highest mortality rates for common respiratory conditions such as asthma and COPD in Western Europe. Respiratory diseases account for 20% of all deaths in the UK

#### Vision

**Transform patient respiratory outcomes by uniting the UK applied research communities and collaborating with patients and cutting-edge industry innovators.**

#### Mission

1. Reduce the burden of unscheduled care, with a key focus on NHS winter pressures.
2. Tackle respiratory inequalities.



### Our approach is based on three key themes



#### THEME 1: REDUCING RISK & INFECTIONS

Improving and evaluating vaccination uptake, evaluating new respiratory virus threats, testing interventions to address poor air quality and other environmental causes of respiratory disease, such as poor housing, cutting smoking and youth vaping.

Examples of our research:

- Homes, heat and Healthy Kids study: joining up health and housing data to ensure homes and children are as healthy as they can be.
- NASAL: Using nasal saline to prevent lung attacks.

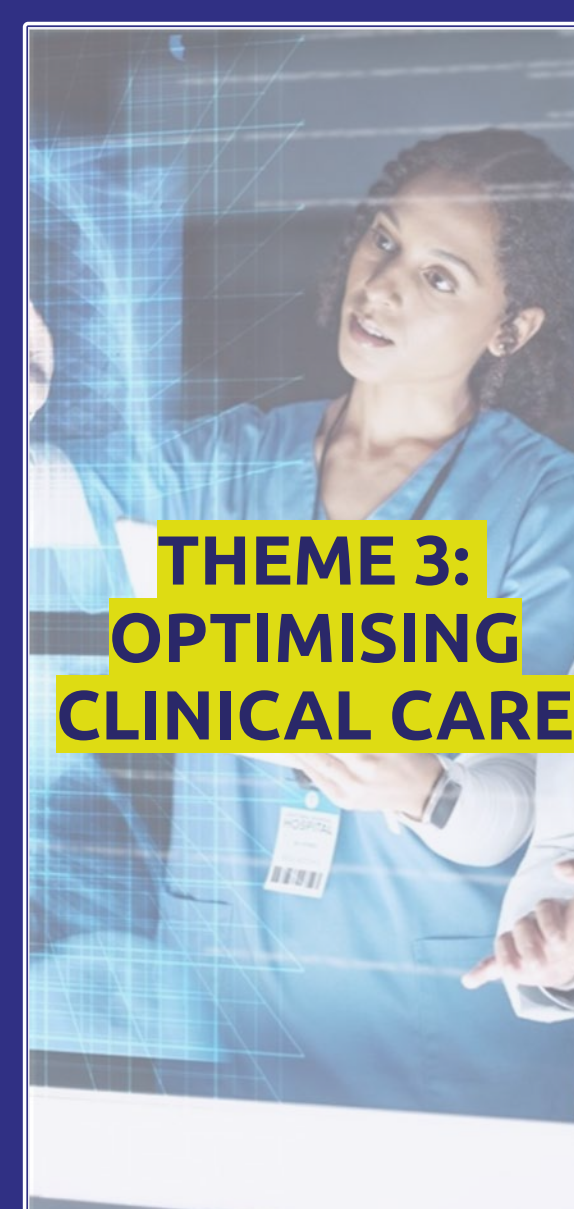


#### THEME 2: CONNECTED CARE

We believe that realising the potential of digital technology to generate data and personalised approaches to promote self-management and risk reduction, will help to keep people out of hospital, reduce length of stay and facilitate early discharge.

Examples of our research:

- IMP2ART: Implementing Improved Asthma self-management as routine
- CORMORANT: Using N-Tidal to transform COPD diagnostic pathways



#### THEME 3: OPTIMISING CLINICAL CARE

Focus on reducing unscheduled care and health inequalities through:

- Personalised care
- Early diagnosis
- Risk stratification and modification

Examples of our research:

- DEFINE: Using FeNO to guide personalised asthma care
- TRIADS: triple diagnostic device for asthma diagnosis
- Discovering novel digital signatures in asthma using continuous multimodal data from wearable sensors

### And built on four specialist platforms:

Postgraduate Training

Patient and Public  
Involvement

Methodology

Data Infrastructure



### We'd love you to join the CARRii network



Be part of a growing community driving innovation in respiratory health.

By joining the CARRii Network, you'll have opportunities to connect with researchers, clinicians, patients, and industry partners, and get involved in shaping impactful research that improves care.

Whether you're early in your career or an experienced innovator, we welcome your expertise and ideas.

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*Transforming Lung Health. Together.*