

# Warm Homes for Young Lungs

St. Helens Fuel Poverty Case Study



## Background

In 2020, an estimated **14% of the population** in Cheshire & Merseyside, equating to **156,359 households, were in fuel poverty**. In 2022, in line with the expected increase in fuel prices, this will **rise to 42% of the population in fuel poverty** (according to OFGEM estimates), equating to 468,829 households across Cheshire and Merseyside. Winter is particularly challenging for those in fuel poverty as cold temperatures can worsen respiratory conditions such as asthma and chronic obstructive pulmonary disease, increasing the risk of hospital admissions.

The prevalence of **asthma is 7% across Cheshire and Merseyside**. However, not all these patients are receiving optimized medication for respiratory conditions, and this project aims to address this issue.



## Fuel Poverty Dashboard

Graphnet developed a fuel poverty dashboard using their CIPHA data platform (combined intelligence for public health action). CIPHA is a linked data platform which brings together health and social care data from across Cheshire and Merseyside. It helps NHS and partner organisations across the ICS to understand and map population health data to support service design and improvement. CIPHA enables the stratification of the fuel poor population using risk of admission, mortality risk and other factors such as living alone. The fuel poverty dashboard brings together several data sets including CIPHA Primary care patient level data, SUS data, Local feeds from providers e.g. Pregnancy register, ONS - Fuel poverty by Lower Layer Super Output Areas (LSOA) and Department of Levelling Up, Housing & Communities Energy Efficiency data

### Hypothesis

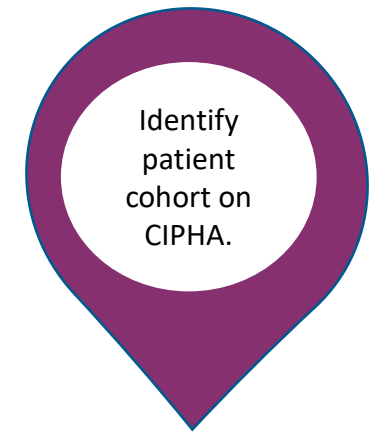
In 2020, across Cheshire & Merseyside, it was estimated that **14% of the population were in fuel poverty, which equated to 156,359 households**. In 2022, in line with the expected fuel rise this is set to increase to 42% of the population in fuel poverty (OFGEM estimate) which will **equates to 468,829 households across Cheshire and Merseyside**. Whilst winter is challenging for all those in fuel poverty, we also know the cold temperatures are well-known to exacerbate respiratory conditions (asthma and chronic obstructive pulmonary disease). Children living under these conditions are at a greater risk of admission to hospital over winter.

Early identification of children living with fuel poverty means appropriate interventions can be put in place to improve better health accounts for children with asthma, airways and breathing problems.

### Achievements to date

- Fuel poverty dashboard help identify the targeted population of children with Asthma.
- Increase in the number of patients proactively identified and put on a new care pathway.
- Reduced hospital admissions.
- Reduced prescribing costs.
- Identify and test targeted clinical and non-clinical interventions within at-risk groups to develop learning on effective strategies for informing future projects and scaling up interventions. This includes optimising patient medication by using NICE approved medications.
- Improvement in staff satisfaction and confidence in remote identification of patients.

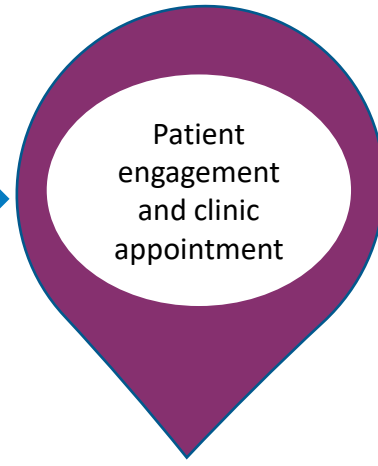
## Storyboard



1

Using the CIPHA platform patients meeting the following criteria were identified:

- 🎯 Fuel poverty risk - Quintile 1.
- 🎯 IMD - Quintile 1.
- 🎯 Age (2-7 years).
- 🎯 Salbutamol inhaler 1-2 or above in the last 12 months.
- 🎯 1 hospital admission in the last 12 months.
- 🎯 Household occupancy of 5+



2

Patients are contacted on phone initially and booked in for a face-to face session at the clinic.

- 🎯 One clinic a week.
- 🎯 30 mins slot per patient.
- 🎯 3 days administrative time to triage and book patients into clinic.
- 🎯 Exclusions: patients already being seen by consultants or known to the Respiratory Team.



3

- Breathe Buddies
- Primary Care
- Home Improvement Team
- Family Hub
- Public Health Initiative
- Community Respiratory Team



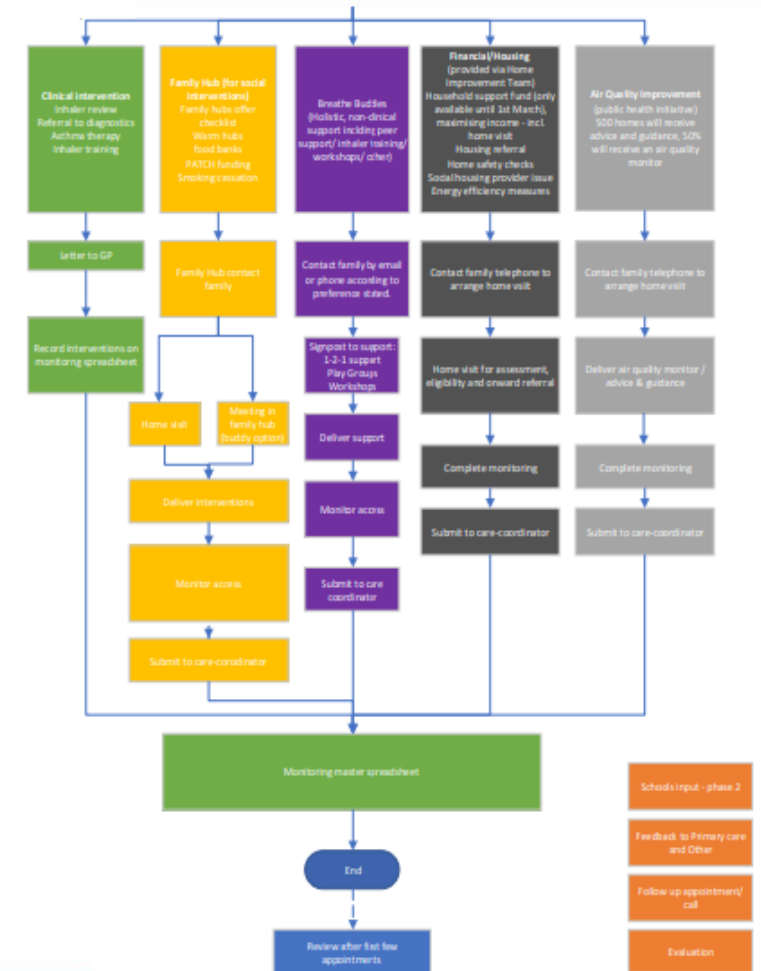
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The following are the short- and long-term benefit and impact indicators agreed on the pilot:

- 🎯 Reduction in A&E admissions.
- 🎯 Reduction in exacerbations.
- 🎯 Savings on prescribing cost.
- 🎯 Number of medication reviews.
- 🎯 New personal asthma action plan (PAAP)

Patients were directed to a range of services that offered comprehensive care to significantly improve health outcomes.

- **Clinical interventions** – patients had access to inhaler reviews, diagnostics asthma therapy and inhaler training. GPs were notified of all interventions via letters.
- **Family hubs** – the social prescribing services included access to warm hubs, food banks, PATCH funding and smoking cessation services.
- **Breathe Buddies** – holistic, non-clinical support that includes self-care training, 1:1 peer support, play groups and workshops suitable for children and parents.
- **Home improvement team** – financial and housing support to families including home visit, referrals to housing department, delivering home safety checks and energy efficiency measures by Energy Plus.
- **Air quality improvement** – public health initiative targeting 500 homes to provide air quality advice and guidance. Households are provided with air quality monitors.



December 2023 – September 2024 (10 months)

299

Children identified and eligible

102 (34%)

Children booked into clinic

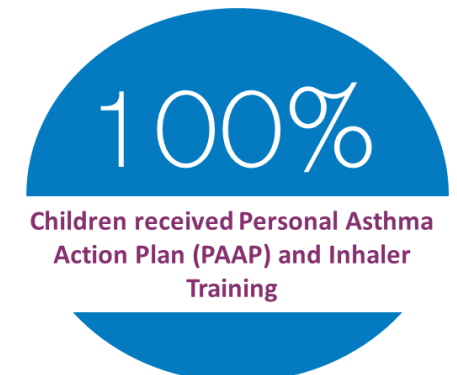
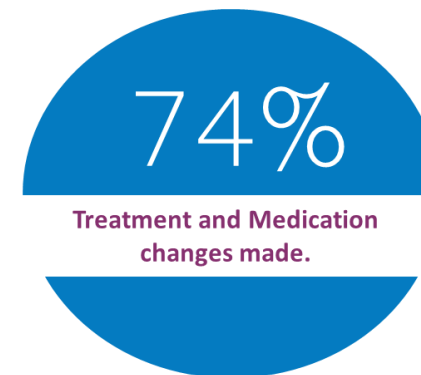
72 (71%)

Children have genetic predisposition

- 102 patients were seen in the clinic, of which 53% (54) are boys and 47% (48) are girls.
- 48 (47%) patients were in the 4 - 5 age bracket.

**A&E attendance has decreased when comparing the current year's figures with those of 2023/2024.**

- 1,263 children aged 0-4 attended A&E in 2023/2024 with airways and breathing problems.
- In the same period, and up to September 2024, the number of children aged 0-4 attending A&E decreased by 5%.



December 2023 – September 2024 (10 months)

299

Patients identified across all cohort

102 (34%)

Patients booked into clinic

84 (82%)

Referred to LA Home Improvement Team (i.e. of the 102 patients seen).



- 24 families had heating problems.
- 39 families had damp in their homes.
- 47 vulnerable people were referred to priority services.
- 50% of families were issued air quality monitors.
- 1 boiler installation.
- 132 light bulbs have been given out.
- 37 families use vaping products.
- 36 families' smoke.



A



Child A had been admitted in hospital four times in six months, each lasting approximately 5 days and requiring oxygen. Since the child attended the respiratory hub (when) Child A has been in hospital once and was discharged less than 24 hours, and no oxygen was required. Impact of project intervention:

- Medication review.
- Personal asthma action plan (PAAP) agreed.
- Access to home air quality monitor.
- On ward referral to Breathe Buddies, and LA Home Improvement Team.

B



Child B is five years old and had been on medication for two years without a review. Two medications had been started at the same time, so it wasn't clear which was helping. In May, Child B medication review led to one being stopped. In August review, Child B was doing well. Impact of project intervention:

- Child B's GP was advised to stop all medication after winter if the child is still well.

C



Child C was identified as eligible for the Respiratory Hub Clinic. It was found that Child C had ENT issues rather than respiratory. Even though the child had been seen at ENT and discharged, the respiratory specialist nurse referred Child C back to ENT. Impact of project intervention:

- Child C had an urgent surgery to remove the tonsils.



The following are some responses received from parents. Qualitative surveys are ongoing.

## • Did you find the clinic helpful?

Understating and information

Very helpful. Told me ways to try prevent my child from having a bad chest and told me signs in which to look out for to try and minimise my child from having a bad chest

Very informative and helpful

Lovely staff, explained everything, answered any questions we had, made us feel welcome and listened to.

Very informative

Was given brown inhaler that has helped alot

Lot of questions and concerns answered

They was fast to see us and good with my daughter

Good advice

Very helpful

Because we've got a care plan now

Lots of advice regarding preventative treatments, inhaler regime etc and change of spacer.

## • Any other comments?

5 respondents (63%) answered **helpful** for this question.





The key learning from the project supports the adoption and upscaling of the project.

## Change of Practice

The conversations clinicians are having with families have changed. All families are now asked about home heating condition, damp and mould when they are seen by the respiratory nurse. Families in need of support are being identified.

## High Risk Patient Reviews

The project has led to high-risk children being reviewed and monitored by the respiratory nurse. Once patient is stable on medication, a referral to the GP is made.

## Inhaler Prescriptions

Children were found not to have inhaler prescriptions for nursery. Some children had high levels of Salbutamol in halers prescribed last year. A routine medication review is essential to ensure children are on the right care pathway.

## Integrated Intervention

Sharing vital information across different sectors of health and care led to improved patient outcomes. Children are receiving care that is tailored to their specific needs, reducing gaps in treatment and preventing unnecessary treatments

# Next Steps

- Establish respiratory hub clinic alongside family hubs.
- Potential to expand the collaboration to include other offers such as respiratory physiotherapy and diagnostic.
- Begin FeNO testing.
- To promote and increase the use of CIPHA.
- Ensure that teams who engage with families (i.e. children aged 0-19 years) fully understand the criteria and the services offered, so that eligible children can be referred to the respiratory hub clinic.
- Consideration of development across the Whiston footprint to include Halton and Knowsley and their services.

