Fuel Poverty and Respiratory Risk in Pre-School Children: Interventions using CIPHA- A Population Health Management Database

DR SARAH COCKMAN

"The window for making the greatest, and most cost-effective, impact on health across the life course is in childhood" ~ AOMRC
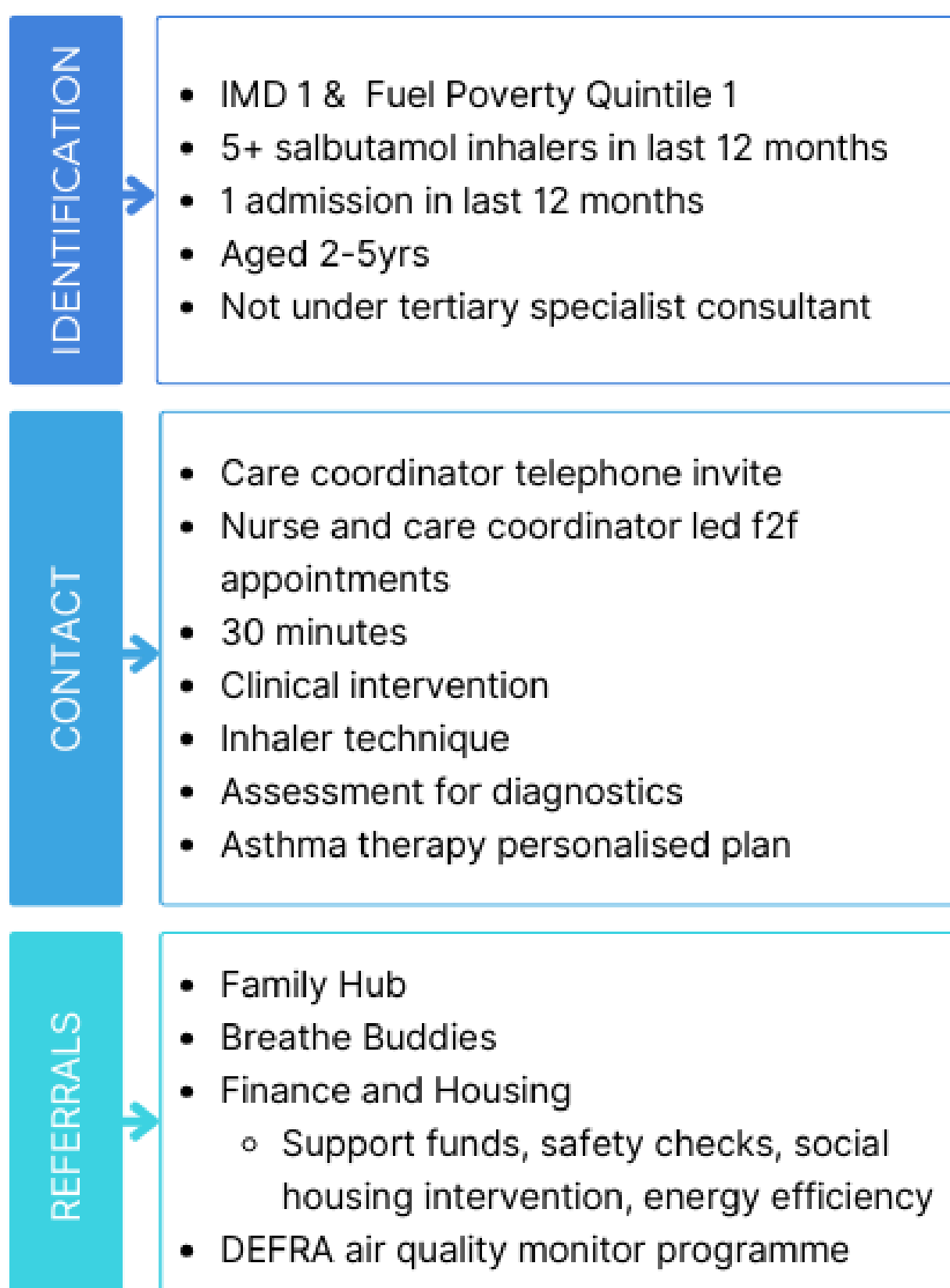
BACKGROUND

Cold homes adversely affect **child development**, cause and exacerbate health conditions, specifically asthma attacks and respiratory infections, and result in **preventable** healthcare admissions. Illnesses linked to cold and damp homes cost the NHS more than **£2.5billion** per year.

PURPOSE

To **reduce hospital admissions** and attendance at GP surgeries by **limiting exacerbations** of **respiratory conditions** in those at risk of poor health due to the **cost of fuel**. To be achieved by identifying those in a potentially **hidden** paediatric population who would benefit from **community links and interventions** from local authority housing, social services, mental health and third sector providers including those specialising in **home heating,** in addition to **medical review**.

METHOD

IDENTIFICATION
- IMD 1 & Fuel Poverty Quintile 1
- 5+ salbutamol inhalers in last 12 months
- 1 admission in last 12 months
- Aged 2-5yrs
- Not under tertiary specialist consultant

CONTACT
- Care coordinator telephone invite
- Nurse and care coordinator led f2f appointments
- 30 minutes
- Clinical intervention
- Inhaler technique
- Assessment for diagnostics
- Asthma therapy personalised plan

REFERRALS
- Family Hub
- Breathe Buddies
- Finance and Housing
  - Support funds, safety checks, social housing intervention, energy efficiency
- DEFRA air quality monitor programme

FINDINGS & DISCUSSION

Cohorting and Attendance

Accurate Identification of Respiratory History = **100%**
Was Not Brought To Appointment (WNB) = **45%**
Appropriate CIPHA Cohort Identification = **36%**

Support and Referrals	
Referral to Affordable Warmth Scheme	90%
Family smokers referred to Smoking Cessation	100%
Referred or connected to Breathe Buddies	100%
Referred to DEFRA indoor air quality project	100%
Change to medication/new respiratory plan	70%
Follow up required	50%

Challenges to Action:

Data sets not complete, updated and/or applicable to finding intended population. Limited strategies for being able to feedback.

Navigating IG and GDPR data restrictions which limit clinician and local authority access, preventing decision making.

Lack of QoF and poor quality paediatric diagnostic coding across both primary and secondary care.

Systemic barriers to healthcare reducing accessibility and engagement, specifically when targeting a preventative, undiagnosed population.

RECOMMENDATIONS AND MOVING FORWARDS

- **Data improvement** needed for paediatric populations- **cannot extrapolate from adult populations**. Need bespoke and tested 'risk of admission' algorithms.
- Exploration of strategies to **manage non-attendance** of appointments due to concern most **vulnerable populations** are being **missed** due to lack of engagement.
- **Primary care capacity** to engage with fuel poverty on wider scale to both enhance referrals (by identifying highest salbutamol use to assess respiratory risk) and improve EMIS data with coding changes.
- **Implementation Toolkit** to allow for **expansion** across other regions specific to paediatric pre-school wheeze and asthma cohorts in line with Core20PLUS5.