



Impact in Pakistan

58,000

children under-five die each year from pneumonia

40%

of all pregnant women are exposed to second-hand smoke

Severe

cases of pollen-induced asthma

AIM

To investigate the current management of childhood pneumonia and pollen-induced asthma, and the feasibility and effectiveness of digital interventions delivered at the community level

	STUDIES	EVIDENCE	IMPACT
Pneumonia diagnosis, management and policy formulation	Policy formation	Lack of involvement of community stakeholders in policy process. Financial sustainability identified as a major challenge	<ul style="list-style-type: none">Invited to contribute to national level consultations on maternal and child health and nutritionEngaged with government and development partners to influence pneumonia policy
	Care seeking and case management	Lack of awareness among caregivers of danger signs. High costs, inadequate healthcare and social factors delayed care seeking. Overprescription of antibiotics	<ul style="list-style-type: none">Findings used to develop an mHealth intervention of pneumonia prevention to be delivered by lady health workersFindings discussed with influential policy stakeholders in the Ministry of Health
	mHealth intervention	Increased knowledge and improved behaviours among caregivers. Feasible and acceptable to caregivers and health workers.	<ul style="list-style-type: none">1171 households educated in under-5 pneumonia prevention, symptoms and management35 lady health workers trained in pneumonia prevention
Asthma management	Seasonal pollen induced asthma model	Model can successfully predict when the paper mulberry pollen season will start and reach its peak Paper mulberry pollen is likely to be a major cause of asthma, especially in March and April	<ul style="list-style-type: none">Mobile app to be developed to alert patients about paper mulberry pollen season to give health adviceConsensus document developed with GPs and chest specialists on improved management of pollen allergies
Second-hand smoking	Effects of second-hand smoke in pregnancy	Most women reported exposure to second-hand smoke during pregnancy. While women recalled the effects of exposure to smoking, few understood the long-term risks to the health of the infant and mother	<ul style="list-style-type: none">Potential for behaviour change interventions focussed on reducing exposure to second-hand smoke

RESPIRE studies have:

- improved health literacy of patients and caregivers and strengthened the capacity of healthcare workers
- Led to the development and successful testing of a digital interventions to prevent and control pneumonia
- Influenced pneumonia policy and practice
- Addressed the overuse of antibiotics
- Improved understanding and management of pollen-induced respiratory control

RESPIRE phase 1 partners in Pakistan:



Find out more at: ed.ac.uk/usher/respire

This research was funded by the National Institute for Health and Care Research (NIHR) Global Health Research Unit on Respiratory Health (RESPIRE) using UK aid from the UK Government to support global health research. The views expressed are those of the author(s) and not necessarily those of the NIHR or the UK Department of Health and Social Care.

