



**Institute for Environment
and Health**

Analysis of Topics and Trends in Indoor Environment Research in Europe

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Background

The basic question:

- **What research is taking place in Europe?**

The issues:

- Wide and varied indoor environment field
- Many different players
- Diversity of factors and topics of study
- A need for ready access to up-to-date information

The solution:

- Development of **IERIE (INVENTORY OF EUROPEAN RESEARCH ON THE INDOOR ENVIRONMENT)**

Objectives of IERIE

- Identify major research activities
- Facilitate communication



- Resource to encapsulate all research on the indoor environment and consequent human exposure and health effects
- Assist in policy development
- Keep abreast of changing technologies



Development of IERIE

- Develop a web-based database software



- Compile the database and populate with data
 - 1) Identification of researchers
 - 2) Questionnaire development and delivery
 - 3) Data collection and entry
 - 4) Thesaurus development
- Probe and analyse data
- Maintain and improve

Identification of researchers

- Government bodies
- European research centres/universities
- European funding bodies
- Societies/Committees
- Scientific journals/newsletters
- Newsgroups/Newsrooms
- Internet search engines
- Delegates at indoor air conferences/workshops
- IEH flyers/website
- Collaborators listed on questionnaires

Questionnaires

- Piloting exercise
- Data protection
- Availability of online questionnaire

Database Entry

- Template for entry
- Data audit
- Thesaurus development

Thesaurus

Level 1

Anatomical components
Biological processes
Buildings, aspects of
Categories of people
Chemical phenomena
Diseases/disorders
Environment types
Environmental phenomena
Exposure categories
Geographical locations
Investigative techniques
Organisms (non-human)
Physical phenomena
Policy
Pollutant emission processes
Pollutants
Pollution control
Scientific disciplines
Social aspects

Level 2

General health and well-being
Immunological disorders
Infectious diseases
Multiple chemical sensitivity
Neoplasms (cancer)
Reproductive disorders
Respiratory disorders
Sensory/neurological disorders
Sick building syndrome
Skin disorders
Systemic disorders, unspecified

Level 3

Asthma
Bronchitis
COPD
Coughs/colds/sore throats

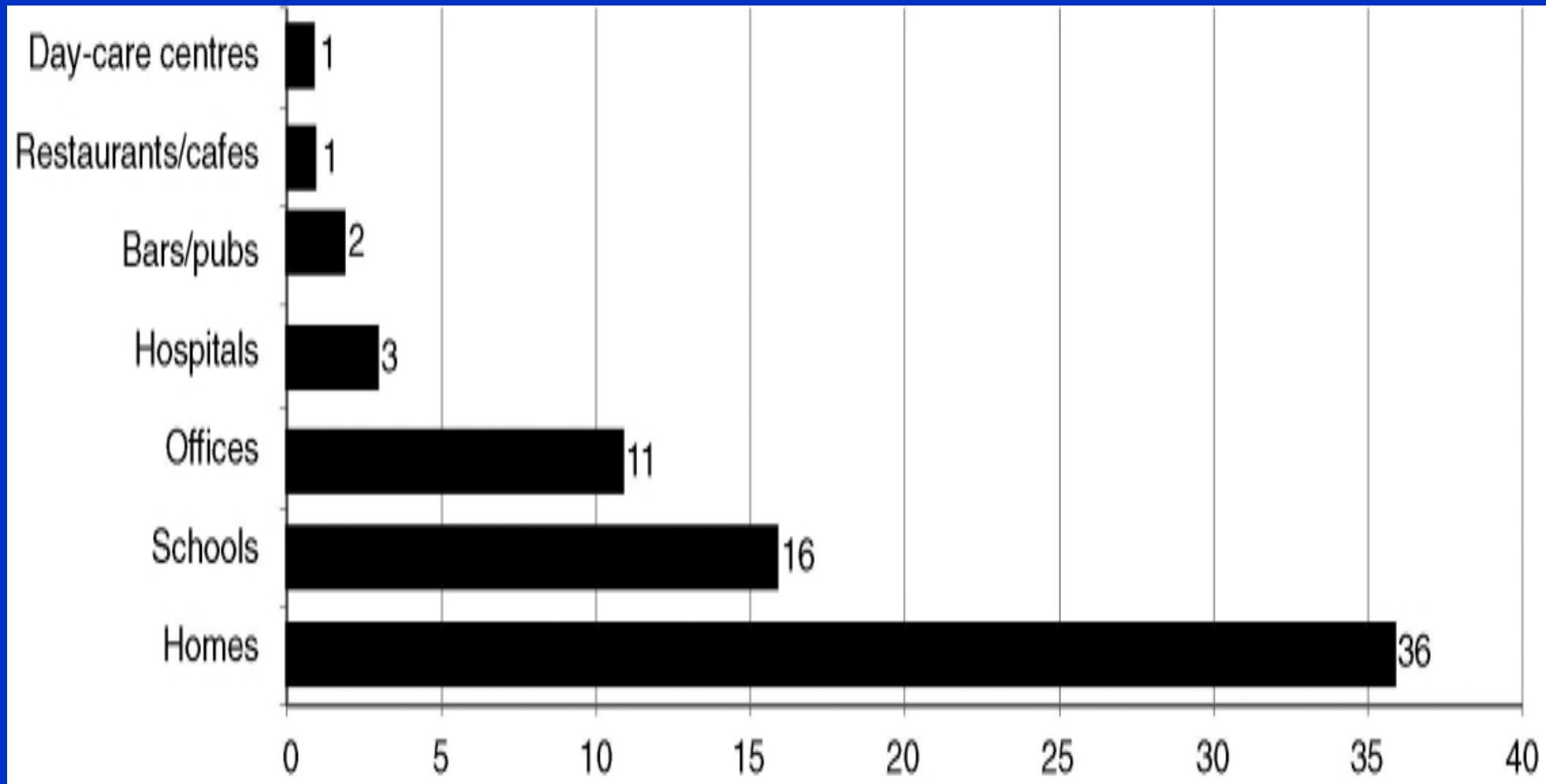
Analysing the data

- Snapshot of research projects
- Identification of key topics for analysis
- Searches based on keywords

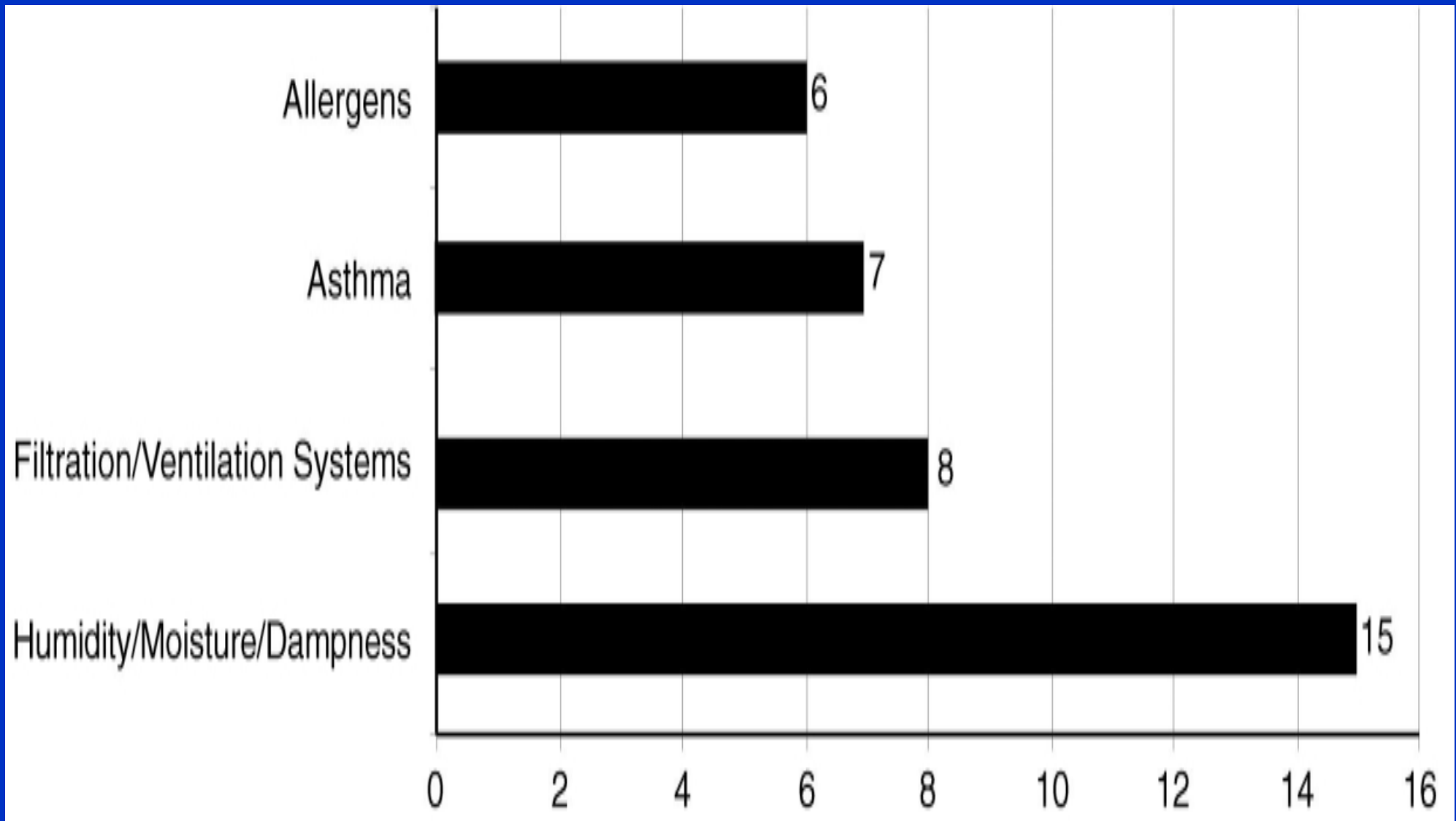


Results (research snapshots)

Types of Indoor Environment Investigated (Number of Projects)

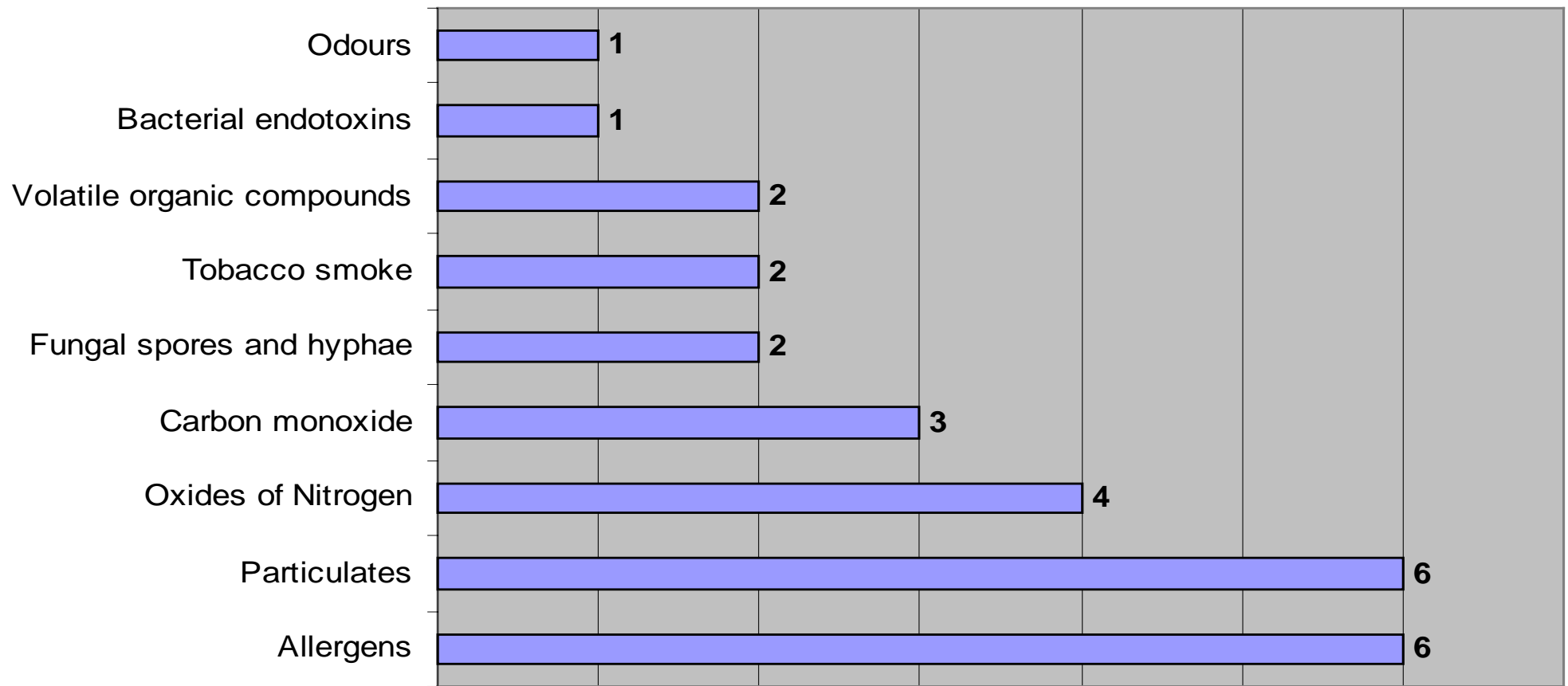


Types of Studies in the Home (Number of Projects)



Humidity/Moisture/Dampness (15 Projects)

Pollutants



IERIE

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Browse

- Individual
- Organisation
- Funder
- Project

Search

- Free text
- Keywords

Broad keywords

(Select an And/Or option when searching for more than one broad keyword)

Pollutants

Intermediate keywords

(Select an And/Or option when searching for more than one intermediate keyword)

Humidity/moisture/dampness

Allergens

Narrow keywords

(Select an And/Or option when searching for more than one narrow keyword)

Search Results

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Search

- Free text
- Keywords

Search Results: 6 records

Project Name	Status
1. A Hygrothermal Model for Predicting House Dust Mite Response to Environmental Condition in Dwellings	<i>Completed</i>
2. Breath of Fresh Air Project	<i>Ongoing</i>
3. Fuel Poverty, Indoor Air Quality and Asthma	<i>Completed</i>
4. Indoor Pollutants, Endotoxin, Allergens, Damp and Asthma in Manchester (IDEAMP)	<i>Completed</i>
5. Schools, Mould and Health - an Intervention Study	<i>Completed</i>
6. Torbay Healthy Housing Group - Watcombe Housing Project	<i>Completed</i>

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Search

[Free text](#)[Keywords](#)

Title: Indoor Pollutants, Endotoxin, Allergens, Damp and Asthma in Manchester (IDEAMP)

Start Date: July 1999

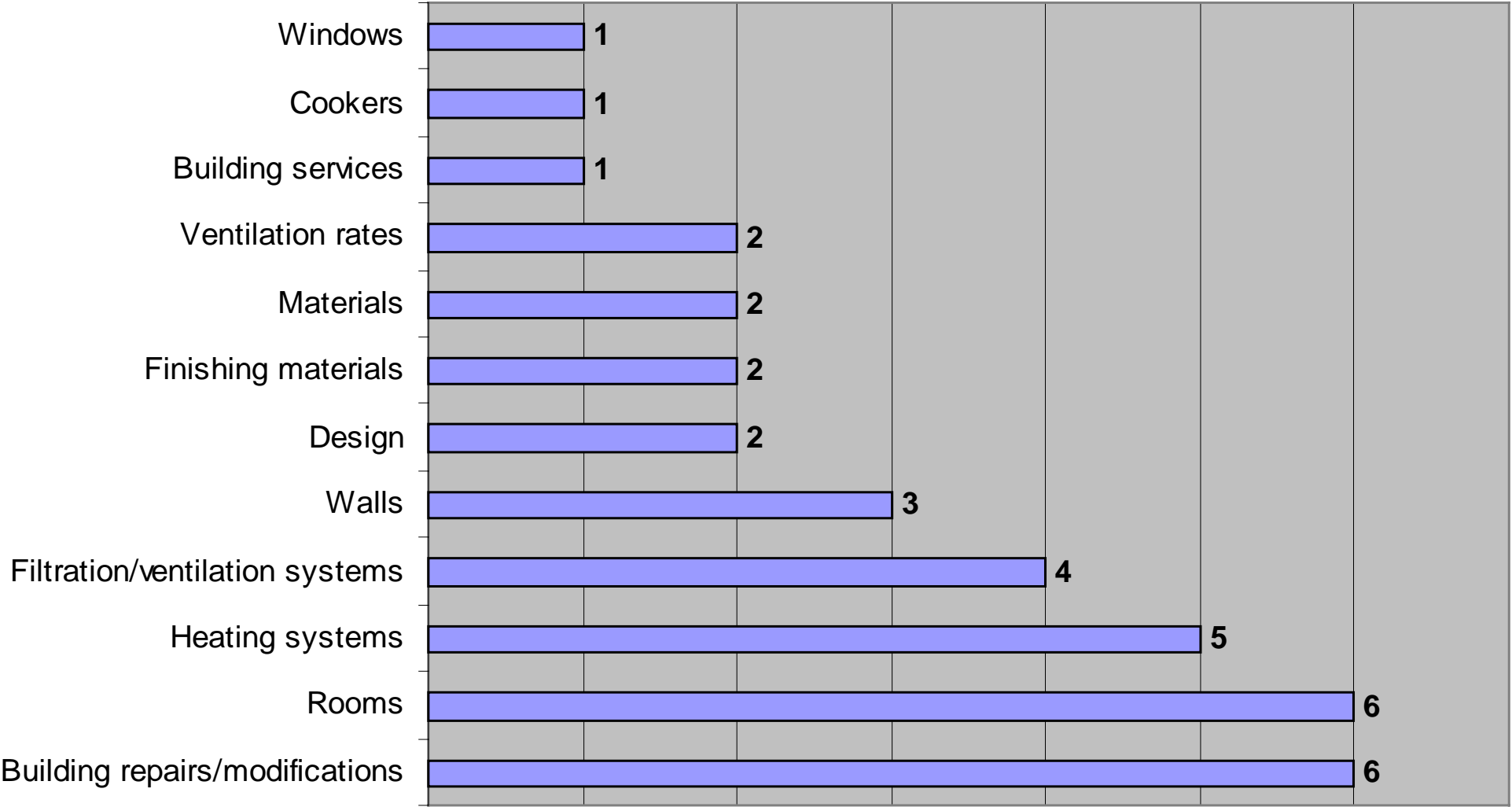
End Date: December 2002

Status: Completed

Abstract: The aetiological factors for asthma are unknown. It is likely that a multi-factorial process involving genetic, environmental and endogenous factors is relevant. While studies have often investigated these possible causes (including allergens, air pollution, infections, indoor air pollutants and vaccinations) in isolation, few studies have measured multiple environmental exposures in order to determine those which are most important.

The present proposal is to use the current database from the Wythenshawe Community Asthma Project, in order to identify a cohort of children (based on their residence) with probable asthma as defined by a scoring system used in a questionnaire survey of two South Manchester general practice populations. A matched control group will be identified from families where

Aspects of Buildings



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Search

- Free text
- Keywords

- View [Help](#) on keyword searching.

Broad keywords

(Select an And/Or option when searching for more than one broad keyword)

Buildings, aspects of	And

Intermediate keywords

(Select an And/Or option when searching for more than one intermediate keyword)

Humidity/moisture/dampness	And
Building repairs/modifications	

Narrow keywords

(Select an And/Or option when searching for more than one narrow keyword)

	And

Search Results

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Search

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Search Results: **8** records

Project Name	Status
1. BAMSE	<i>Ongoing</i>
2. Development of Methods to Monitor the Success of Repair Measures	<i>Completed</i>
3. Influence of Different Surface Systems on the Indoor Climate in Flats with Rising Damp Problems After Renovation	<i>Completed</i>
4. Mould and Moisture Transfer in Building Structures and Buildings with Particular Regard to the Prevention of Health Hazards	<i>Completed</i>
5. Schools, Mould and Health - an Intervention Study	<i>Completed</i>
6. The Continuous Monitoring of Several Indoor Air Quality Aspects of a School Building Before and After Repairs	<i>Completed</i>
7. Torbay Healthy Housing Group - Watcombe Housing Project	<i>Completed</i>
8. Torbay Healthy Housing Group: The Development of an Environmental Toolkit	<i>Completed</i>

IERIE

Project Details

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- Keywords

- Title:** Influence of Different Surface Systems on the Indoor Climate in Flats with Rising Damp Problems After Renovation
- Start Date:** September 2000
- End Date:** 2002
- Status:** Completed
- Abstract:** Please see project website 14/05/01

In Austria a lot of buildings suffer from rising damp. In the recent past render systems, which have a low capillary moisture transport capability, have been developed for the renovation of such buildings. In some houses owners claimed about having mould problems on furniture and clothing articles. Investigations showed that all old walls where only the new render systems had been used, showed very high moisture contents. By using a newly developed program, which is able to predict the indoor climate under a given usage and the coupled heat and moisture transfer (vapour and liquid) in constructions, different renovation strategies have been investigated. In the paper the time dependent surface climate and room climate is presented for

Funding (21 funding bodies)

>400 K Euros	3
80 K – 400 K Euros	8
<15 K	2
Not given	2

Countries

Austria	1
Finland	3
Sweden	1
UK	7
Multinational	2

Diseases/disorders

Cardiovascular diseases	1
General health and well being	2
Immunological disorders	3
Respiratory disorders	6

Future plans



- Continue to identify additional projects
- Raise awareness of database
- Contact recipients every 12 months for update
- Provision of more detailed pattern/trend analysis

IERIE Website Address

<http://wads.le.ac.uk/ieh/ierie/index.htm>