## **FERMA** - Risk factors of rural environment and allergic and respiratory diseases

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|---|---|
| General                                       |   |
| Identification                                |   |
| Detailed name                                 | Risk factors of rural environment and allergic and respiratory diseases |
| Sign or acronym                               | FERMA   |
| General Aspects                               |   |
| Medical area                                  | Biology<br>Immunology<br>Pneumology<br>Study of allergies               |

Health determinants Climate

Nutrition Occupation Pollution

Keywords Farming environment, indoor air pollution, Asthma,

Allergies

## Scientific investigator(s) (Contact)

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Organization INSERM

## Collaborations

## **Funding**

| Funding status   | Mixed   |
|--|---|
| Details  | ANSES   |
| Governance of the database   |   |
| Sponsor(s) or organisation(s) responsible                              | EPAR INSERM U707  |
| Organisation status  | Public  |
| Additional contact   |   |
| Main features  |   |
| Type of database   |   |
| Type of database   | Study databases   |
| Study databases (details)  | Cohort study  |
| Database recruitment is carried out by an intermediary                 | A selection of health institutions and services   |
| Database recruitment is carried out as part of an interventional study | No  |
| Additional information regarding sample selection.                     | Subjects born and having lived on a farm. The MSA files were used (Occupational medicine)   |
| Database objective   |   |
| Main objective   | Two objectives:  1) Estimate the prevalence and the severity of allergic and respiratory diseases in rural areas, especially asthma and OCPD.  2) Study the environmental factors in rural areas in liaison with the development of these diseases, and in particular better focus on the role of biological and chemical air pollutants in the risk of allergic and respiratory diseases in rural areas. |
| Inclusion criteria   | Two populations: 1) 340 children aged 9 to 11 years born and having lived all of their lives on a farm. These children underwent an allergy and respiratory health check (SPT, running test, respiratory function, weight, height; 2) 1000 adult farm workers (employees and owners) recruited via Mutuelle des Salariés Agricoles (MSA). These individuals were questioned using a                       |

questionnaire. A sub-sample (n=504) underwent a respiratory health check including spirometry with bronchodilator response, eCO, eNO, saturometry, blood pressure measurement, blood sample (for pneumoproteins), urine, saliva (for DNA), weight, height....

| Population type                              |  |
|--|--|
| Age  | Childhood (6 to 13 years) Adulthood (19 to 24 years) Adulthood (25 to 44 years) Adulthood (45 to 64 years) |
| Population covered                           | General population   |
| Gender                                       | Male<br>Woman  |
| Geography area                               | Regional   |
| French regions covered by the database       | Auvergne Rhône-Alpes   |
| Detail of the geography area                 | Auvergne region  |
| Data collection                              |  |
| Dates  |  |
| Date of first collection (YYYY or MM/YYYY)   | 2009   |
| Date of last collection (YYYY or MM/YYYY)    | 2011   |
| Size of the database                         |  |
| Size of the database (number of individuals) | [1000-10 000[ individuals  |
| Details of the number of individuals         | 340 enfants/children 1000 adultes/adults   |
| Data   |  |
| Database activity                            | Current data collection  |
| Type of data collected                       | Clinical data<br>Biological data   |
| Clinical data (detail)                       | Direct physical measures   |

| Biological data (detail)   | BloodUrine  |
|--|---|
| Presence of a biobank  | No  |
| Health parameters studied  | Health event/morbidity Health care consumption and services Quality of life/health perception Others  |
| Care consumption (detail)  | Hospitalization<br>Medical/paramedical consultation<br>Medicines consumption  |
| Other (detail)   | Exposure to the rural environment via questionnaire + measurements of pollutant concentrations inside farms.  |
| Procedures   |   |
| Data collection method   | Standardized questionnaire + health check   |
| Participant monitoring   | Yes   |
| Details on monitoring of participants  | Only phase I was carried out  |
| Links to administrative sources  | No  |
|  |   |
| Promotion and access   |   |
| Promotion and access Promotion   |   |
|  | http://www.hal.inserm.fr/FERMA  |
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