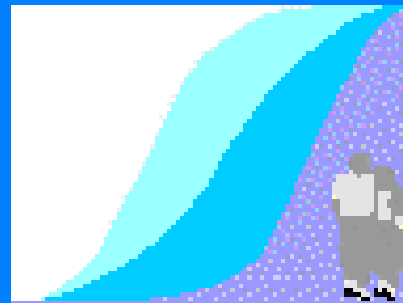


EXPOLIS

Air Pollution Exposure Distributions within Adult Urban Populations in Europe



EXPOLIS is a European Union 4th Framework RTD Programme funded multicenter study with additional national funding (EU contracts ENV4-CT96-0202 and ERB IC20-CT96-0061).

Study Goals

The EXPOLIS study collected air pollution exposure data from adult urban populations in Europe to assess

- air pollution exposure levels and distributions, and relations to ambient air quality,
- personal, environmental, and communal determinants of these exposures,
- and to develop a probabilistic simulation technique for modeling exposures of subpopulations and impacts of urban development alternatives on exposures.

Cities



EXPOLIS Study Population

- European urban populations
- Age 25-55 years
- Normal weekday exposures

Environment
 - Meteorology
 - Ambient air quality

Population sample

- Civil Register Data
- Mailed/Telephone Interview Short Questionnaire

Diary Sub Sample

- Exposure Questionnaire
- Time-activity Diary

Exposure Sub Sample

- Exposure Questionnaire
- Time-activity Diary
- Exposure measurements
- Microenvironment concentration measurements

Helsinki	234	201
Athens	50	50
Basel	282	50
Grenoble	7	99
Milan	250	50
Prague	33	50
Oxford	70	49
TOTAL	926	549

Measurement Scheme

- Air Pollutants
 - MEM (home indoor, home outdoor, work)
 - VOC, PM_{2.5} (BS, elements), NO₂
 - PEM (personal)
 - VOC, PM_{2.5} (BS, elements), NO₂, CO
 - Fixed Stations (air quality and meteorology)
- Microenvironments and Activities
 - Questionnaires
 - Time-Activity-Monitoring

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EXPOLIS-INDEX

Indoor Determinants of Personal Exposures in the European EXPOLIS Population



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www.expolis-index.org

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Study Goals

- Description of current human indoor exposure patterns in Europe for Health Risk Assessment
- Indoor Determinants of Personal Exposures to VOCs in the EXPOLIS Population
- Key information for human health risk assessment and public planning purposes

Work Packages

- **Workpackage 1: Time-Microenvironment-Activity-Patterns in Europe**
 - Description and Predictors of TMAP
- **Workpackage 2: Personal and Indoor Exposures to VOC in European Cities**
 - Description and Predictors of VOC Exposure
- **Workpackage 3: Source Apportionment for indoor Environments**
 - relative importance of indoor sources/activities on total personal exposures
 - Estimating intake fractions (iF) for indoor pollution sources

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