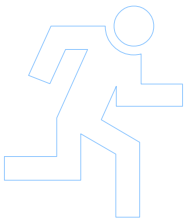
ESCAPE Newsletter 7

August, 2010



ESCAPE is a collaboration of more than 30 European cohort studies including some 900,000 subjects. It is aimed at quantifying health impacts of air pollution and at reducing uncertainty.

Greetings!

This is the 7th ESCAPE newsletter with information about our progress.
We're well past the halfway mark now, and the hard work of collecting exposure data is finished in half of the centers, and well on its way in the other half. The exciting part of analysing the data is now before us, and we're all very curious to find out, in the next two years, what it all means.

Meanwhile, the economic difficulties in Europe threaten to slow down air pollution regulation, and the findings we are producing may become even more important than we anticipated to inform EU policy.

The ESCAPE description of work has been updated to reflect the various changes in the study and in the consortium we discussed in the plenary meeting. Proposals for a change in the contract have been sent to Brussels recently, and we will have to bother all participating centers with some of the administrative work involved in the next few months. We will try to make this as smooth as possible.

Bert Brunekreef, PhD, Coordinator

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Plenary meeting

We had a successful ESCAPE plenary meeting, June 14-16 2010 in Utrecht, The Netherlands. During the 3-day meeting we discussed management issues, the mid-term review and progress report, the linked TRANSPHORM project, the progress of the monitoring and modeling of air pollution exposure, the common statistical issues, the publication policy and the dissemination strategy. The work packages had also separate meetings to discuss work package specific issues.
The minutes of the meeting and the 18-month progress have been added to the Member-section on the ESCAPE website (www.escapeproject.eu).

We decided to have the next plenary meeting September 12-13 2011 preceding the ISEE 2011 conference in Barcelona.

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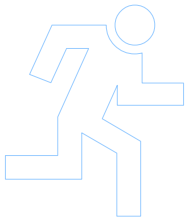

Exposure assessment

The laboratory analyses of all the measurements of the groups in the first year have been finalized and have been sent back to the partners. These concentrations will be used for the development of Land Use Regression (LUR) models for exposure assessment. The first LUR models will be ready after the summer of 2010.

The field work for the groups in the second year is still ongoing and is on schedule. The measurements for these groups will be ready in the winter of 2010/2011.

On February 7 – February 10 2011 a GIS-LUR workshop will be held in Utrecht for the second year groups. During this workshop there will be explanation of the used procedures for LUR model development and exposure assessment. All groups in the second year have received an invitation for this workshop. Please mark these dates in your calendar! More information about the workshop will follow later, but if you have any questions please send them to Rob Beelen (r.m.j.beelen@uu.nl).

We also developed a final version of the ESCAPE exposure assessment manual. This manual describes the procedures for GIS data collection, GIS analyses, LUR model development and exposure assessment. The final version of the manual is available in the Member-section on the ESCAPE website (www.escapeproject.eu).

Our partner in Umeå conducted an Ogawa validation study which has just been published. See the next page for a summary of this study which is of interest for the ESCAPE NO_x measurements.

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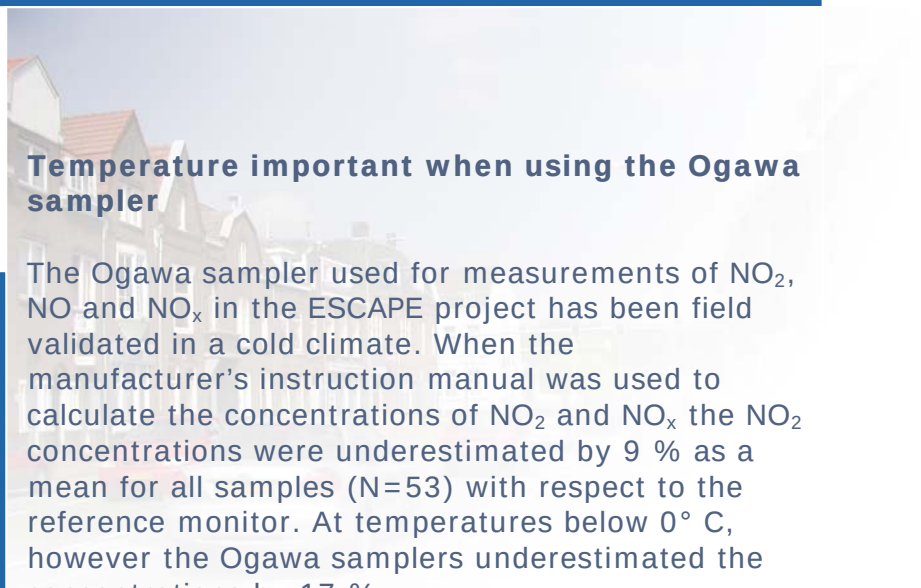

Temperature important when using the Ogawa sampler

The Ogawa sampler used for measurements of NO_2, NO and NO_x in the ESCAPE project has been field validated in a cold climate. When the manufacturer's instruction manual was used to calculate the concentrations of NO_2 and NO_x the NO_2 concentrations were underestimated by 9 % as a mean for all samples (N=53) with respect to the reference monitor. At temperatures below 0° C, however the Ogawa samplers underestimated the concentrations by 17 %.
For NO_x measurements the concentrations in contrast were overestimated by 15 % as a mean for all samples (N=45) when calculated according to the instruction manual. The greatest overestimation with respect to the reference monitor was made at temperatures above 0° C, at these temperatures the Ogawa sampler overestimated the concentrations by 21 %.
It is therefore important to notice that concentrations at centers within the ESCAPE project with approximately the same climate as Sweden could be either underestimated (NO_2 at low temperatures) or overestimated (NO_x at temperatures above 0° C).
Uptake rates for NO_2 and NO_x were determined by co-locating Ogawa samplers and chemiluminescence instruments at six sites in two Swedish cities. These uptake rates should be used when measuring in colder climates to get a better estimation of the concentrations.

Reference: Hagenbjörk-Gustafsson A, Tornevi A, Forsberg B, Eriksson K; J. Environ. Monit., 2010, ***12****, 1315-1324*

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ESCAPE related projects

TRANSPHORM

TRANSPHORM is a project on the health impacts of transport related air pollution. It officially started on ***January 1, 2010***. ESCAPE WP lead institutes are integrated in this study, which will support a fair amount of additional exposure measurements and modelling for the ESCAPE cohorts. Measurements for the TRANSPHORM project have been scheduled for: Athens, Helsinki, Copenhagen, London/Oxford, Paris and Rome in addition to the extra measurements we already took in the Netherlands, Oslo, Barcelona and Munich. In early May, the TRANSPHORM kick-off meeting was held in Hatfield, UK, attended by Bert Brunekreef, Paolo Vineis and Annette Peters representing ESCAPE. Most of the deliverables for this project related to ESCAPE are not due until about 1.5 - 2 years from now. A document is being prepared to outline financial support for ESCAPE centres which are not part of TRANSPHORM but which are invited to contribute.

VE^{3}SPA

CONCAWE has decided to fund a validation study, in which we will be doing personal exposure measurements in three ESCAPE areas (Utrecht, Barcelona and Helsinki) to validate the exposure models we're building for ESCAPE. The project has been named VE^{3}SPA (Validation of ESCAPE Exposure EstimateS using Personal exposure Assessment). More information about the project can be found of the VE^{3}SPA website: http://www.escapeproject.eu/vespa/ or send an e-mail to Denise Montagne (D.R.Montagne@uu.nl) who is working as a PhD student on this project.

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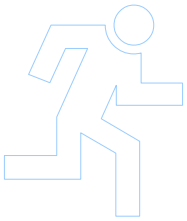

ESCAPE website

The ESCAPE website address is:
www.escapeproject.eu
In the "Member"-section all ESCAPE manuals, SOPs, meeting minutes and progress reports can be found.

Newly add to the ESCAPE website are:
* the final version of the ESCAPE exposure assessment manual
* the minutes of the ESCAPE plenary meeting on June 14-16 2010 in Utrecht
* the 18-month progress report
* graphics of the ESCAPE logo and other figures that might be interesting to use in for example presentations

If you have any documents or information that you would like to have available or would like to add on the ESCAPE website, please let us know.

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