



## Pre-conference Workshop 1.1

### Health Impact Quantification I. DYNAMO HIA hands on training

Wednesday, April 13, 8:30-12:30

#### ORGANIZING INSTITUTIONS

NRW Institute of Health and Work-WHO Collaborating Center on Regional Health Policy and Public Health (Bielefeld)  
Erasmus Medical Centre (EMC), University of Rotterdam  
Institute of Occupational Medicine (IOM, Edinburgh)  
In coordination with the World Health Organization (WHO)

#### OVERVIEW

Among the roots of Health Impact Assessment (HIA), there is a strong tradition of qualitative approaches, with a focus on health equity issues and on stakeholder participation. These approaches have proven useful in numerous situations.

Meanwhile it has become increasingly clear that the idea of HIA will benefit considerably if the HIA community develops and applies also quantitative approaches, including the usage of health metrics and the explicit modelling of health impacts. As a consequence, today, there is a broad range of quantitative health impact modelling approaches, some of them just being completed in EC co-funded projects.

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- Considering practical issues incl. accessibility of software and training options
- Identifying open questions for research and development.

#### PROGRAM

8:30-9:00 Welcome, short introduction  
9:00-12:30 Part 1. Parallel workshops on Health Impact Quantification toolkits: (1) DYNAMO-HIA; (2) INTARESE/HEIMTSA  
14:00-18:00 Part 2: Health impact quantification: Status and perspectives

Workshop contributions and results will be documented and made publicly accessible. For questions and comments, please contact:

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<sup>1</sup> The workshop presentations can be found online, [www.liga.nrw.de/service/downloads/pub-gesundheit/pub-tagng/100316\\_quantifying\\_health\\_impacts/index.html](http://www.liga.nrw.de/service/downloads/pub-gesundheit/pub-tagng/100316_quantifying_health_impacts/index.html). Report forthcoming



## WORKSHOP 1.1. DYNAMO-HIA *hands on training*

**FACILITATORS** Wilma Nusselder<sup>2</sup>, Hendriek Boshuizen, Stefan Lhachimi

### PRESENTATION

DYNAMO-HIA quantifies the impact of user-specified risk-factor changes due to policy or interventions on various and multiple diseases and in turn on overall population health, by comparing one reference scenario with one or more intervention scenarios. Using a Markov-based modelling approach that allows for explicit risk-factor states, it dynamically simulates a real-life population. A built-in parameter estimation module ensures that only standard epidemiological evidence on the population level, i.e. data on incidence, prevalence, relative risks, and mortality is required. DYNAMO-HIA provides a rich output of summary measures such as life expectancy and disease-free life expectancy and detailed data such as mortality/survival rates and prevalence numbers by age, sex, and risk-factor status over time. DYNAMO-HIA is completely controlled via a graphical user interface and is publicly available. It includes data for three risk factors (smoking, overweight and alcohol consumption) and resulting diseases (several cancers, ischemic heart disease, stroke, diabetes and COPD for a large number of EU countries. New data can be easily integrated with the existing software.

### OVERALL AIM

- To initiate potential future users to the DYNAMO-HIA tool.

### SPECIFIC GOALS

- To introduce participants to the tool
- To give hands on training in using it
- To illustrate the exercise by presenting example applications.

### TARGET AUDIENCE

Persons interesting in quantitative HIA as well as public health officials, decision makers and epidemiologist with interest in quantifying the population health impact of interventions and policies. No knowledge of a programming language is required.

### PROGRAM

- Introducing the DYNAMO-HIA tool: aims and description of the tool, data needed and outcome measures
- Hands on training
- Presentation of example applications

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### PRACTICAL ISSUES

- Attendees are asked to bring their own laptop, with at least Windows XP installed.
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<sup>2</sup> For questions and comments, please contact: [w.nusselder@erasmusmc.nl](mailto:w.nusselder@erasmusmc.nl)



## Pre-conference Workshop 1.2

### Health Impact Quantification II. INTARESE / HEIMTSA TOOLBOX

Wednesday, April 13, 8:30-12:30

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## WORKSHOP 1.2. INTARESE / HEIMTSA Toolbox

**CHAIR** Fintan Hurley

**FACILITATORS** Joachim Roos, Rainer Friedrich, Denis Sarigiannis, Alberto Gotti

### PROGRAM

09.00-09.15 Overview and purpose (Fintan Hurley)

- Brief introduction to the work of HEIMTSA and INTARESE, and to the Toolbox as a key output of these two projects.

09.15-10.30 Guidance System and Toolkit (Joachim Roos, Rainer Friedrich)

- The Guidance System is a detailed on-line guidance to the concepts and methods of integrated environmental health impact assessment, with many examples. The Toolkit is a set of stand-alone resources (data, models) useful at various stages of the analysis, depending on the environmental factors being considered.

10.30-11.00 Coffee

11.00-12.15 Computational System / Integrated Assessment Platform

- The Computational System / Integrated Assessment Platform is an environment to facilitate the complex computations sometimes necessary in analysing, for various environmental pollutants, the full chain or impact pathway from emissions through to (aggregated) health impacts. The Light version is for training; the Full version requires co-operation of those who maintain core models and datasets.
  - Light version (Rainer Friedrich, Joachim Roos)
  - Full version (Denis Sarigiannis, Alberto Gotti)

12.15-12.30 Wrap-up (Fintan Hurley)

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### PRACTICAL ISSUES

- Attendees are encouraged to bring their own laptop, so that each can explore (with help) the Guidance System and Toolkit.
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## Pre-conference Workshop 1.3

### *Health Impact Quantification III. STATUS AND PERSPECTIVES*

Wednesday, April 13, 14:00-18:00

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## **Update 5 April 2011: Pre-conference Workshop 1.3**

### ***“Health Impact quantification”***

#### **PART 2. HEALTH IMPACT QUANTIFICATION: STATUS AND PERSPECTIVES (14:00-18:00)**

**CHAIRS** Johan Mackenbach, Rainer Fehr, Fintan Hurley

#### **PROGRAM**

##### **1. Status quo of Health Impact quantification (Chair: Johan Mackenbach)**

- Leading questions: What is the status quo of Health Impact quantification? Where do we stand with tools and toolkits supporting this approach?

##### Topics:

- Synoptic view on the existing tools / toolkits
- Practical issues incl. ease of access to programs, training options
- Specific strengths, existing gaps within quantifying approaches

##### Presenters:

- Odile Mekel, NRW Institute of Work and Health (LIGA.NRW), Bielefeld/Düsseldorf, DE
- Denis Sarigiannis, formerly EC Joint Research Center (JRC), Ispra, IT, now U Thessaloniki, GR
- Wilma Nusselder, Erasmus Medical Center (EMC), Rotterdam; Hendriek Boshuizen, National Institute for Public Health and the Environment (RIVM), Bilthoven, NL

##### **2. Policy-making and Health Impact quantification (Chair: Rainer Fehr)**

- Leading questions: Model development, modelling in practice, and policy-making – what are the (mutual) expectations? What interactions between “science” and “policy” can be observed?

##### Topics:

- Experiences with health impact quantification for various policies
- Lessons learnt so far

##### Presenters:

- Gabriel Gulis, University of Southern Denmark (USD), Esbjerg, DK
- Neil Riley, Public Health Wales, Cardiff, UK
- John Kemm, formerly West Midlands Public Health Observatory (WMPHO), Birmingham, UK

##### **3. Perspectives for Health Impact quantification (Chair: Fintan Hurley)**

##### Presentations and round table:

- Next steps concerning the development, usage, and evaluation of quantitative methods and tools
- Next steps to “demonstrate usefulness” of health impact quantification, based on real-life applications.

##### Participants:

- Lara-Grazia Passante, European Commission, DG Research and Innovation, Brussels, BG
- Margaret Douglas, Chair of the Scottish HIA network, Edinburgh, UK
- Anne Knol, National Institute for Public Health and the Environment (RIVM), Bilthoven, NL
- Workshop presenters