UNIPHE Newsletter

Lorraine Stewart
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It is now two years since UNIPHE (**U**se of sub-**n**ational **i**ndicators to improve **p**ublic **h**ealth in **E**urope) and its strive *'towards positive health outcomes'* commenced. It is with great pleasure that we announce the publication of the first edition of our newsletter. To improve population health, one has to firstly identify the priority issues and their magnitude, followed by the application of appropriate interventions/actions. However, this task is complicated given that the health status of a population is largely influenced by exposures relating to the environment in which they live, play, work *etc*. Furthermore, whether an exposure results in a health effect is linked to the social, political, behavioural and cultural context.

Given the above, the UNIPHE project is developing a tool which will enable public health practitioners, policy makers, researchers and the general public to very quickly assess the health status of sub-populations within European countries.

Identification of the context in which policies and actions deliver positive health outcomes is also important particularly in these times of austerity where resources are scarce and must be utilised efficiently and effectively.

Editorial

It is recognised that an intervention which has a positive impact in one community in a country may not necessarily deliver a similar result in a neighbouring community in the same country. Often there may be intrinsic differences between communities in the same countries. UNIPHE is working towards identifying policies and interventions which deliver positive health outcomes. It is also developing a methodology to compare regions within EU countries to enable transferability of actions if the regions are similar.

The newsletter is to be used to inform both public health professionals and the wider community of the progress of the development of the population assessment tool. Hence, there will be a total of three editions, with the final expected in spring 2012 when the project finishes. In this edition we will discuss the methodology used for the selection of the core set of environment and health indicators, and the development of a harmonized information system to host the data. We will also provide highlights of our project conference which was held in September 2010.

I hope you will enjoy reading this first edition and join us in trying to achieve the motto of the project *'towards positive health outcomes'*.

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Overview of UNIPHE

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Reliable high quality information on the environment, public health and their linkages is required in order to prioritise public health issues. Such information is also essential to develop and evaluate policies, actions and interventions in order to reduce the burden of disease through the control of hazardous environmental exposures. Hence the European Commission (EC) identified, as a priority, the need to establish a group of experts to continue the development of a sustainable health information system. This will be done by building on previous work which used indicators sets to undertake population heath assessments at a national level.

The system is to be used to monitor and review the quality and consistency of health information across Europe, in order to generate and disseminate information and knowledge. Such a system may also facilitate the identification of health inequalities among regions within EC.

To date, there are a number of indicator sets including Environment and Health Information System (ENHIS) [1], European Community Health Indicators Monitoring (ECHIM) and European Community Health Indicators (ECHI)[2].These systems enable policy makers to quickly compare the performance of their country to another with very little effort.
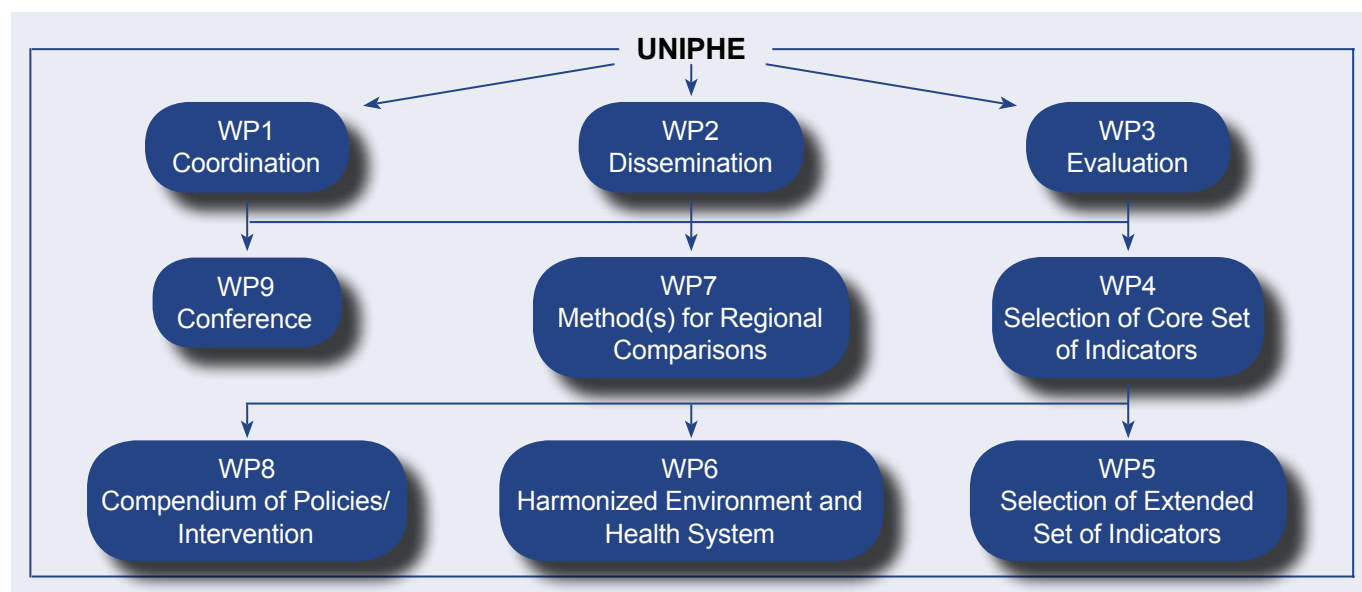
However, it is known that while some policies and interventions may have a positive outcome nationally, it is often necessary to have policies and interventions targeted at sub-populations; where a number of similarities may exist, such as: access to hospitals, living in close proximity to industrial processes *etc*.

Given this, there is the need to develop a harmonized environmental health information system of sub-national indicators to complement the national indicators set. The creation of a consistent and common framework within Europe will facilitate the comparability of health status data.

Figure 1
Organistion of work packages in UNIPHE

[1] www.enhis.org
[2] ec.europa.eu/health/ph_information/dissemination/echi/echi_en.htm

UNIPHE

WP1 Coordination	WP2 Dissemination	WP3 Evaluation
WP9 Conference	WP7 Method(s) for Regional Comparisons	WP4 Selection of Core Set of Indicators
WP8 Compendium of Policies/ Intervention	WP6 Harmonized Environment and Health System	WP5 Selection of Extended Set of Indicators

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Life expectancy at birth of males
Europe, NUTS0 (2007)

The programme of work is being undertaken by institutes in 7 EU countries, namely:
- Institute of Health and Work of North Rhine-Westphalia, Germany
- National Institute of Environmental Health, Hungary
- Centre for Health Education and Disease Prevention, Lithuania
- National Institute of Public Health, Romania
- National Institute of Public Health, Slovenia
- Institute of Health 'Carlos III', Spain
- Health Protection Agency, United Kingdom.

The project is organised into work packages to effectively achieve the overall goal of the project in the stipulated time frame (see Figure 1).

To date, a number of activities have been successfully completed, including the selection of a core set of 22 indicators to facilitate the monitoring of population health status at sub-national levels.

Data collation for the core set of indicators in the seven partner countries have been completed and inputted into a recently developed harmonized environmental health information system, where analysis for sub-national comparison can be undertaken.

Fact sheets, highlighting key messages and data analysis, have also been developed. Preliminary results highlight the effect of deprivation and social inequalities on the distribution of health outcomes.

WP4: Core Set of Indicators

*Mrs Ingrida Zurlyte
Leader of WP4
Centre for Health Education and Disease Prevention (SMLPC)
Lithuania*

A core set of sub-national environment and health indicators has been developed and included: assembly of a core set of indicators; production of methodological sheets for each indicator and undertaking data collection for the indicators in all 7 partner countries; and development of fact-sheets for each indicator in partner countries.

The 26 core ENHIS indicators were reviewed during the initial phase to ascertain their applicability at sub-national level. In addition, other relevant national and international indicators sets, *eg*, ECOEHIS, ENHIS2, ECHI, ECHIM, ISARE, were reviewed in order to identify further indicators for inclusion in the feasibility study.

Indicators were considered for inclusion in the feasibility study based on the modified

DPSEEA (Drivers, Pressures, State, Exposure, Effects and Actions) model which enables the mapping of a wide spectrum of environmental health issues including social, cultural and behavioural aspects. An initial set of 71 indicators was assembled for inclusion in the feasibility study. Each indicator was assessed in partner countries against a set of criteria.

The results of the feasibility study undertaken were analysed and those indicators which satisfied most, or all, of the criteria in partner countries, were included in the initial core set of 27 indicators. In addition, a number of indicators (18) were identified for inclusion in the extended set.

The next phase focused on the development of methodological sheets for each indicator selected for inclusion in the core set.

The methodological sheets provides scientific information relating to the indicator and includes technical guidance for the calculation. Some methodological sheets are currently under review, due to comments/feedback received from members of the project Steering Group and the public health fraternity who attended the system demonstration workshop earlier this year. There was a reduction in the number of indicators in the core set during the development of the sheets, due to either differences in definitions in partner countries, overlapping with some other indicators, and/or doubtful relevance and validity for sub-national level.

The core set of 22 indicators and proposed categorization of indicators was agreed for further data collection (see Table 1).

In order to commence the data collection phase of the project it was necessary to agree on the sub-national level which would be used in the project. World Health Organization Regions for Health Network[1] and ISARE[2] projects (Health Indicators in European Region) were identified as including activities which may inform or support this task.

Hence, during the feasibility study, each partner reported the geographical level at which data was available in their country to agree the level(s) to be used in the project.

The final consensus was to use the Nomenclature of Territorial Units for Statistics (NUTS)[3]. Germany, Spain and the United Kingdom have collated data at a regional level (NUTS1)[4] and each has selected a pilot region for which NUTS3 level data will be collected for the core set of indicators. Hungary, Lithuania, Romania and Slovenia have collated data at NUTS3 level.

[1] www.euro.who.int/rhn
[2] www.isare.org
[3] ec.europa.eu/eurostat/ramon/nuts/basicnuts_regions_en.html
[4] ec.europa.eu/eurostat/ramon/nuts/overview_maps_en.cfm?list=nuts

Table 1 Core set of indicators with categories

Socio-economic
- Life expectancy at birth
- Total unemployment
- Infant mortality rate
- Living floor area per person

Air Quality and Noise
- Infant mortality due to respiratory diseases
- Mortality due to respiratory diseases
- Mortality due to cardiovascular diseases (CVD)
- Exceedance of air quality limit values in urban areas
- Ambient particulate matter (PM_{10}) concentration in urban areas
- Population exposed to various noise level ranges per source

Chemicals, UV and Ionizing Radiation
- Incidence of childhood leukaemia
- Incidence of melanoma in people aged under 55 years

Water and Food Safety
- Outbreaks of waterborne diseases
- Outbreaks of food-borne diseases
- Incidence rate of acute intestinal disease
- Bathing water quality
- Drinking water quality: microbiological
- Drinking water quality: chemical

Accident, Mobility and Transport
- Mortality due to road traffic injuries in children and adolescents
- Mortality due to unintentional injuries in children and adolescents
- Mortality due to unintentional injuries in children
- Injury rate due to road traffic accidents

WP6: Development of harmonized system

Dr. Anna Páldy
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Hungary.

Data have been collected in the 7 partner countries at the agreed NUTS level for the 10 year period 1999 - 2008. In order to ensure a consistent information system, data on indicator variables have been collected and the indicators are computed by the system using a uniform methodology. A data presentation website has been developed to make the data accessible and to provide easily understandable pictures based on the available information.

The home page of the website contains the list of the indicators by categories. Each indicator has a page that includes:
- a short description
- the detailed methodology of the indicator
- fact sheets of the indicator in partner countries including sub-national assessments (see Figure 2).

After selection of the pre-defined parameters (territorial level, country, year), the data are obtainable in downloadable tables (up to 10 years) or can be presented in maps, bar charts or line graphs. Maps and charts can be saved as picture files.

The sub-national bar and line charts include the national and regional value (Figure 3). The information system and the website were demonstrated at a workshop in Budapest on 21 - 22 February 2011 and it is expected to be available to the public by the end of 2011.

UNIPHE project partners, Hungarian public health professionals, experts from other European countries and representatives of the World Health Organization-ECEH Bonn Office and the European Environment Agency (EEA) attended the workshop where comments, suggestions, remarks and potential modifications/amendments of the system were discussed.The functions of the system have been tested and scrutinized.

The overall view of the participants was that the system is useful and with minor modifications, it can be a unique European sub-national information system to facilitate the assessment environmental health inequalities. Some non-participating European countries indicated their willingness to participate in the project and contribute to the system by providing data.
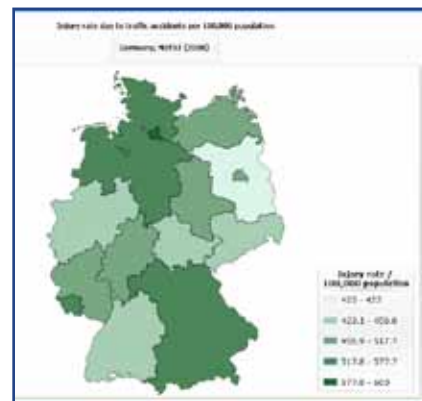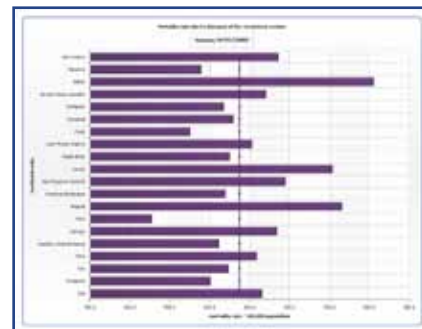

The objective of the work package is to establish a harmonized system for the collation of environment and health information at a sub-national level.

Figure 2 Example of indicator page

Figure 3 Examples of maps and charts created by the website

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WP9: UNIPHE Promotional Conference

*Dr Adriana Galan
Leader of WP9
National Institute of
Public Health (INSP)
Romania*

The objective of this work package was to organize an international conference to raise awareness and promote participation in the project.

The event was held on 27 - 28 September 2010 in Bucharest, Romania, and used to present the work being undertaken in the UNIPHE project. In addition, the event was used to encourage other European Member States (particularly those who were involved in ENHIS project) to participate as collaborating (voluntary) partners and provide national data to be incorporated into the harmonized environment and health information system being developed.

Speakers included representatives from:
• other indicators projects which have taken place or were in progress within Europe, such as I2SARE, EURO-URHIS, ENHIS
• projects which addressed the health information strand of the EU public health programme.

The conference was attended by 90 participants from a number of institutes in 15 EU countries. Delegates included professionals from a variety of disciplines including environmental health, public health and policy making.

The event focused on emerging and current work in the field of public health information and its application in the following key areas:
• Environment and health information policy in Europe.
• Existing environmental health initiatives/projects update in Europe.
• Environment and health information assessment tools/ approaches.
• UNIPHE results.
• Establishment of further partnerships and networking.

The conference commenced with a welcome speech given by a representative of the Ministry of Health (MoH) from Romania, Dr. Amalia Canton (Deputy Director of the Public Health Directorate). She emphasized the importance of the event and the priority which is afforded by the MoH to sub-national inequalities. A number of non-participating EU countries agreed to be involved as collaborating (voluntary) partners and contribute national data.

*Opening of the conference
L: Dr Andrey Egorov
Dr Lorraine Stewart
Dr Amalia Canton
Dr Alexandra Cucu*

Dr Dafina Dalbokova (WHO-ECEH Bonn) delivering a presentation

Project partners at the conference

Conference delegates at the palace of parliament