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Project acronym: Climate TRAP

Project title: Climate TRAP: Climate Change Adaption by Training, Assessment and Preparedness

Instrument: Coordination Action

Thematic Priority:

Deliverable D12: Final technical and financial report

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Organisation name of lead contractor for this deliverable: HGM

Revision Draft 1

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Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

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Executive Summary and Recommendations

The project Climate-TRAP (Climate Change Adaptation by Training, Assessment and Preparedness) was initiated in May 2009. The project is coordinated by Public Health Services Gelderland-Midden (HGM) from the Netherlands. Eight other partners from different countries in Europe were involved in obtaining the project objectives. The total project duration was 36 months.

The overall aim of Climate-TRAP is to strengthen the preparedness of the Public Health Sector on the health impact due to key stressors in climate change and in relation to key European action plans and adaptation strategies. An additional aim of this project is to inform health care workers and/or public health authorities, particularly the emergency doctors and hospital personnel (first responders) on how to be better equipped and prepared.

There are two main expected results within Climate-TRAP:

- A compilation of plans / guidelines, based on surveillance and early warning systems for different health stressors and the results of an impact and capacity assessment. Guidelines will be presented to stakeholders during three regional workshops;

Training modules, both for public health professionals and first responders, in order to learn how to be prepared for changes in public health due to climate change effects. The training modules have been tested by means of pilot trainings in three different countries.

The objective of the inventory of guidelines was to collect existing surveillance and early warning systems, and to review their state of implementation in the EU and associated participating countries. The results are described in Deliverable 4, the Inventory of Guidelines and their Implementation. The report has been updated regularly until the end of the project, to enable inclusion of recent information. It contains information from 23 different countries. In addition, the information is summarised in an excel file.

Within the impact and capacity assessment, different output scenarios (in size / geographical spread) in climate change and its impact in public health are used, in

order to get insight in what has to be expected to be prepared for climate change effects, using different timescales.

The project team has been working on performing an impact assessment for various stressors, including heat, air pollution and food-borne diseases. For heat and air pollution (specifically ozone) it was possible to perform a quantitative assessment by using models. For other stressors, this has been more difficult. A quantitative assessment for vector-borne diseases and flooding has not been made due to lack of data, but the available qualitative information was incorporated in the WP report. This consists of a description of the current situation, risk areas in Europe, and visible trends. In addition, a capacity assessment has been done, based on the results from the impact assessment.

Within the combined analysis of early warning systems and assessment outcome, the data from the 2 previous WPs (early warning & surveillance systems, adaptation plans and impact assessment) were analysed for the main health stressors related to climate change. These have been presented in the form of factsheets.

Since WP6 continued on the results of WP4 and WP5. The work that is carried out now consists of collecting good practices and examples of activities that are carried out by regions or countries in response to climate change related activities (e.g. heat waves).

The implementation of guidelines aimed at obtaining commitment of policy makers by making the information available from WP4, 5 and 6, in particular by the development of guidelines. This has been done in all EU and associated Member States through 3 regional workshops and written material. The workshops were divided over 3 countries (Italy, Slovenia and Sweden). These workshops were well attended by a range of stakeholders.

The main objective of the training section is to develop training modules, both for public health professionals and first responders, in order to learn how to be prepared for changes in public health due to possible climate change effects. This WP used the information obtained in the other WPs.

A project website exists, which can be found by following the link <http://www.climatetrap.eu>. Here, general information on the project can be found, as well as finalised deliverables.

How to use this report

Part 1

Administrative part

This part describes the general process of the project. The work is described according to the objectives and the work packages, following the lay-out of final report framework.

This part begins with an introduction, followed by description of WP1, WP2 and WP3. Finally, about the involvement of stakeholders is reported.

Part 2

Technical part

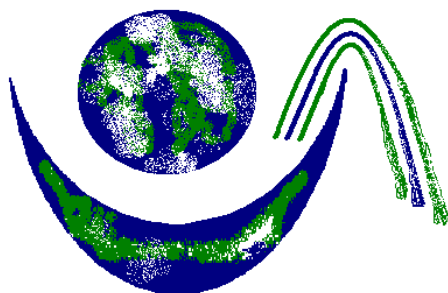
This part describes the results in the light of the project objectives related to the core work packages.

Chapter 1) The first chapter consists of a general introduction (project description) and the executive summary.

Chapter 2) This chapter describes the specification of the project with the general objectives and the specific objectives, including some indicators.

Chapter 3) A description is given here on the different core work packages (WP4, WP5, WP6, WP7, WP8).

Finally the annexes are presented.



Climate-TRAP

Introduction

The project Climate-TRAP (Climate Change Adaptation by Training, Assessment and Preparedness) was initiated in May 2009. The project is coordinated by Public Health Services Gelderland Midden (HGM) from the Netherlands. Eight other partners from a variety of countries in Europe were involved in obtaining the project objectives. The total project duration was 36 months.

The overall aim of Climate-TRAP is to strengthen the preparedness of the Public Health Sector on the health impact due to key stressors in climate change and in relation to key European action plans and adaptation strategies. An additional aim of this project is to inform health care workers and/or public health authorities on how to be better equipped and prepared.

There were two main expected results within Climate-TRAP:

- A compilation of plans / guidelines, based on surveillance and early warning systems for different health stressors and the results of an impact and capacity assessment. Guidelines were presented to stakeholders during three regional workshops;
- Training modules, both for public health professionals and first responders, in order to learn how to be prepared for changes in public health due to climate change effects. The training modules will be tested by means of pilot trainings in three different countries.

This report has been developed by Public Health Services Gelderland-Midden, coordinator of Climate-TRAP.

WP1 Project Management

Activities undertaken

As coordinator of Climate-TRAP, Public Health Services Gelderland Midden has been responsible for several tasks, including the organisation of meetings and telephone conferences, and the financial management of the project. Three partner meetings and 15 telephone conferences have been organised. Time sheets have been filled in by all partners, and were sent to HGM every 6 months. There has been numerous contacts by mail with the scientific officer of DG Sanco.

Problems encountered

Several small difficulties were encountered during the course of the project. The person responsible for partner NCHE, Erik Petersen, was no longer able to perform work for Climate-TRAP. His tasks were taken over by Stephan Böse-O'Reilly, who is also responsible for partner UMIT.

An adjusted timeline was used for the work in work package 4. At the start of the project, it was thought that WHO had already done an inventory that would contribute to the intended deliverable, Compilation of Existing Guidelines (D4). It turned out this information was not available, making it necessary to perform

additional tasks within this work package, thus explaining the extended duration for this deliverable. To be able to include recent information, the Compilation of Existing Guidelines has been updated regularly until the end of the project. Specific attention was given to the involved Ministries of member states by checking their status on implementation of early warning systems, guidelines or surveillance systems.

Internal communication

The partners communicated by meetings and electronic means about the progress of the project.

The following meetings have been carried out:

- A project kick-off meeting. This meeting was organised on 21-22 May 2009 in Amsterdam, and was attended by representatives of all partner organisations.
- An additional project meeting. This meeting was held in line with the Open Days in Brussels, on the 5th of October 2009. This meeting was also attended by representatives of all partners.
- An additional project meeting was held on 8 June 2011 in Munich, which was attended by 5 partner organisations.

Minutes and participant lists of these meetings can be found in separate deliverables. In addition:

- A meeting was scheduled in December 2010 with Bettina Menne and Franziska Matthies from WHO Rome. The purpose of this meeting was to synchronise the different activities that are ongoing in the field of Climate Change and Health.
- Three regional workshops were conducted. See description under WP7.
- Three pilot training sessions were conducted. See description under WP8.

Communication strategy

The overall goal of the communication and dissemination plan was to reach out to specific target groups through delivering the information about Climate-TRAP and to create awareness and develop the public profile which we would like to use for the project.

The more specific goals of Climate-TRAP were:

- 1) The projects' main outcome will be the results from the five work packages related to the content of the project. These results have to be communicated to different stakeholders in order to attract new partners;
- 2) To reach out with the scientific results and the training products;
- 3) To communicate about the project Climate-TRAP and about its strategic role and place in the interactive field of environmental health between different stakeholders.

These goals mean that the communication will have a content level as well as a strategic level.

Most scientific results were generated in 2011. The identification of target audiences was an important aspect to send the right messages from the project and to guarantee a valid usage of the outcomes of the project. This approach has mainly be used for the regional workshops and the trainings. In a wider circle of dissemination the general public should benefit from the outcome of the projects through change or adjustment in public health policy. This is an impact which will

take its effect after the project is finished. The results of the training development will be targeted to the public health sector and its relevant policy stakeholders, such as educational organisations, national authorities and schools of public health.

Management structure

There were no changes in partnerships, or in legal status of any of the beneficiaries.

Changes that have occurred in the financial expenses can be found in the final financial overview, which is added to this report. These were mentioned before to the project officer and deal with small shifts of costs for meetings, workshops. The beneficiary has asked for an additional month to provide the EC with this final report. This has not impact on the final results of the project. The content was concluded in time of the closure of the project except for the translation of the training modules in Swedish and in Italian.

Partnership

Partner 1 (coordination)

Public Health Services Gelderland-Midden (HGM)
Arnhem, the Netherlands
<http://www.hvdgm.nl>

Partner 2

Umeå University, Occupational and Environmental Medicine (UMU)
Umeå, Sweden
<http://www.umu.se/english>

Partner 3

Regione del Veneto (REGVEN)
Venice, Italy
<http://www.regione.veneto.it/channels>

Partner 4

Network Children's Health and Environment (NCHE)
Bremen, Germany
<http://www.netzwerk-kindergesundheit.de/>

Partner 5

Baltic Innovation Agency (BIA)
Tartu, Estonia
<http://www.bia.ee/?lang=en>

Partner 6

Medical University of Vienna (MUW)
Vienna, Austria
<http://www.meduniwien.ac.at/homepage/homepage/en/>

Partner 7

Regional Public Health Institute Maribor (RPHI MB)

Maribor, Slovenia
<http://www.zzv-mb.si/>

Partner 8
Universität für Gesundheitswissenschaften, Medizinische Informatik und Technik (UMIT)
Hall in Tirol, Austria
http://www.umat.at/page.cfm?vpath=index&switchLocale=en_US

Partner 9
Hungarian Association for Environmental Health (HAEH)
Budapest, Hungary
<http://e-ke.uw.hu/>

The work has been distributed among the various partners, and most activities were undertaken by the various partners. They were each coordinated by a lead partner of the subsequent work packages. See the table below for the distribution of work.

<i>Work-package (WP)No</i>	<i>Work package title</i>	<i>Lead partner</i>
WP 1	Coordination of the project	HGM
WP 2	Dissemination of the results	HGM
WP 3	Evaluation of the project, which includes the internal evaluation timing and costs	REGVEN
WP 4	Inventory of guidelines and their implementation	MUW
WP 5	Impact and capacity Assessment	UMU
WP 6	Combined analysis of early warning, surveillance systems and assessment outcome.	UMIT
WP 7	Implementation of early warning systems, surveillance and guidelines of preparedness	HGM
WP 8	Training of public health professionals	HGM

WP2 Dissemination

HGM is WP leader for this work package. Since most of the project results were achieved during the 2nd half of the project, most dissemination activities have been carried out in that stage of the project. So far, the following actions have been taken:

- A Communication and Dissemination Strategy was developed, which has been used for the complete duration of the project)(Deliverable 3);
- The project website has been launched in June 2009. The address is <http://www.climatetrap.eu/>. Information on the project and partners can be

found there, as well as finalised deliverables that should be publicly available;

- A project leaflet has been developed, which is spread at (inter)national conferences;
- The following meetings / conferences were attended
 - o A presentation was given by HGM during an internal meeting of the EU-funded EUROMOMO project;
 - o A meeting organised by WHO in Bonn on climate and health indicators was attended by HGM;
 - o A presentation was given by HGM at the Chinese Academy of Science (on invitation);
 - o A presentation was given by HGM at a coordinator meeting organised by EAHC in September 2009;
 - o A presentation was given by MUV at climate change and public health surveillance at a meeting in Paris in March 2010;
 - o A presentation on ClimateTRAP at an internal meeting at the Austrian EPA (Umweltbundesamt) on March 20th, 2012.
 - o A Climate-TRAP workshop was organised during the international EUPHA Conference, which is held in Amsterdam in November 2010. Several partners (HGM, MUV) have presented their activities so far;
 - o 5th Ministerial Conference on Environment and Health, Parma, Italy; March 2010;
 - o The Östersund and Maribor meetings were reported in the Austrian journal on Environmental Health;
 - o A brochure on climate change ordered by the government of Carinthia (to be printed this year) with a chapter on air pollution;
 - o A report on climate change and health was produced on the website of the Austrian Environmental Protection Agency. see: <http://www.klimawandelanpassung.at/newsarchiv/terminesonstiges/klimawandel-und-gesundheit/> .

Not all dissemination activities could have been foreseen at the start of the project, and are thus not incorporated in the budget.

Dissemination of the results of the project and of the recommendations

Stakeholder analysis / target group identification

The communication plan considered the heterogeneity of the stakeholders in the field of climate and environmental health. Dissemination and communication is an area of careful consideration and preparation.

There are major target groups that are important for reaching the objectives set by the project. The direct target groups for which we produced content and material; and the secondary target groups such as media, external experts, and umbrella organisations.

A total list of potential stakeholders for communication and dissemination deals with:

- Decision maker in the Health sector at the different levels;
- Staff at Public Health Services and at stakeholder organisations (other departments/ units);
- Managers of all levels of the Public Health Systems;

- People in charge or involved in climate change interventions;
- Emergency Room Doctors Associations;
- Expert groups;
- Policymakers at local/regional authorities;
- Research institutes;
- Ministries, related to climate change;
- Inspectorates;
- Umbrella organisations in the field of climate change and/or health and environment;
- Civil society groups, NGO's, networks;
- Patient or consumer organisations;
- General public;
- Media.

Activities undertaken

A website was created at the beginning of the project. The target group is all stakeholders involved in climate change and health.

Papers were presented at several international conferences:

EUPHA had a session on Climate trap with several speakers in November 2010. the target group there was policy makers and researchers in the field of public health.

ERS conference had a paper on the impact assessment related to ozone. Target group was scientists. But there was general media attention (newspapers/television) and attention by policy makers from Ministries.

The Austrian pilot training in Linz (Sept 28th 2011) and another training on health effects of climate change organised in Hall/Tyrol March 28th, 2012 were mentioned prominently in a different newsletters. In an Austrian project, summarising the "Austrian" aspects of climate change (Austrian Panel on Climate Change, APCC - producing 3 volumes of scientific information following somehow the IPCC process) ClimateTRAP was mentioned and its results as far as they are relevant for Austria. Dr. Moshhammer was responsible for the "health" chapter in Volume 3 which is about adaptation and mitigation)

The following scientific articles have been published so far:

Åström C, Orru H, Rocklöv J, Strandberg G, Ebi KL, Forsberg B. Heat related respiratory hospital admissions in Europe in a changing climate, submitted to Thorax.

J.G. Ayres, B. Forsberg, I. Annesi-Maesano, R. Dey, K.L. Ebi, P.J. Helms, M. Medina-Ramón, M. Windt and F. Forastiere, on behalf of the Environment and Health Committee of the European Respiratory Society# . ERS POSITION STATEMENT

Climate change and respiratory disease: European Respiratory Society position statement. European Respiratory Journal. Print ISSN 0903-1936. Online ISSN 1399-3003 . EUROPEAN RESPIRATORY JOURNAL VOLUME 34 NUMBER 2 295-302

Orru H, Andersson C, Ebi KL, Lagner J, Åström C, Forsberg B. Impact of climate change on ozone related mortality and morbidity in Europe, was accepted for publication in ERJ June 2nd 2012.

Dissemination content

The result of WP6 (combined analysis) was put into factsheets considering the core information of WP4 (compilation of existing guidelines/surveillance and/or early warning systems) and WP5 (Capacity and impact assessment).

Dissemination means

The communication was targeted to support the objectives of the project.

- activities were undertaken to increase the general visibility of Climate-TRAP to stakeholder organisations which deal with climate change or public health at a local/regional level by applying different communication tools; This was done by visiting meetings or conferences and by dissemination of the factsheets.
- to address media to give attention on Climate-TRAP in order to place value on the activities of the project; an example has been the television interview on the impact of ozone in the future on the health care system;
(see: http://www.youtube.com/watch?v=Q1_OWtJIKns)
- to reach out to local/regional authorities so they know about Climate-TRAP and consider Climate-TRAP as a platform to buy-in public health knowledge regarding public health-related preparedness problems; at least 20 authorities (local or regional) have made contact with Climate-TRAP about environment and health issues;
- to involve co-workers of Climate-TRAP so they know about affordable and accessible skills training and public health relations services.

The staff of different stakeholders has been kept informed on the progress of the activities within Climate-TRAP, besides having access to the aims, data and activities of the project and finally its results.

Selected groups of stakeholders became part of a "peer-review" procedure for testing the draft of the training recommendations, which will be one of the final products of the project. A combination of oral and written evaluation of the pilot trainings were conducted in order to improve the content and the teaching itself of the modules.

Problems encountered

A first trial to contact policy makers yielded a limited amount of response. It was also difficult to get up to date content information of responsible stakeholders at ministries of the member states.

How were problems resolved

The policy makers responded better on a written request to the Ministry than on email requests for updates on for example the national guidelines and early warning systems.

WP3 Evaluation of the Project

REGVEN is WP leader for the Evaluation of the Project, which is an internal evaluation process. Several activities have been taken with respect to this:

- An evaluation plan has been developed (see Deliverable 2);
- An evaluation form was made. This form has a general part, suitable for all partners, and work package specific sections for work package leaders only. The form has been digitalised.

The following activities have been undertaken:

- data collection for process evaluation
- analysis of process evaluation data
- data collection for effect evaluation (baseline)
- analysis of effect evaluation data

The information is in process to be delivered after the project.

Research Methodology

Since Climate-TRAP is not a research project but a coordination action, no research methods or analytical techniques are used during the course of the project. However, a short description is given on the general methodology applied in the project:

- Within WP4, an inventory was made of early warning systems, surveillance systems and adaptation plans in various countries in Europe. To achieve this, each partner was made responsible for their own and some additional countries, to retrieve this information. The information was collected by contacting responsible organisations in the different countries, such as national and regional governments.
- Within WP5, a Health Impact Assessment is currently being performed. Depending on the stressor, this is done either by using (existing) models, by using climate maps or by reviewing literature on the topic.

Co-operation with key stakeholders and their added value

The project promoted the participation of key stakeholders or users in the action by organising three regional workshops. These workshops were attended by persons from different countries in the consecutive regions. This participation of different experts has enhanced opportunities for policy development by dissemination of material provided in the workshops to the participants.

Partner members have made contact with other researchers involved in the Health Programme (e.g. experts from ECDC or WHO to exchange information, experiences or to promote learning). Consultants of the WHO have actually contributed to the development of training material and by participation in at least one of the regional workshops. The cooperation may be continued in the future by exchange of monitoring data with the several partners and e.g. ECDC.

There are several categories of key stakeholders that have been involved in Climate-TRAP:

- Collaborative organisations that work on similar actions / projects, with whom information can be shared and exchanged. This includes organisations like WHO (regional office for Climate Change & Health) and ECDC, and projects such as the EU-funded EUROMOMO project.
- Organisations from which information is obtained. This included governments that provided input for the inventory of guidelines, and research organisations from which information (e.g. models) for the impact assessment was obtained. Information on infectious diseases was obtained from prof. M. Baylis of the University of Liverpool, based on work for the ERA-net.
- Target groups, which were reached within the duration of the project. This included governmental organisations on different levels, to whom the developed guidelines were presented during the regional workshops, and stakeholders at which the training modules aimed, such as hospitals, public health professionals and care providers for the elderly.

Sustainability strategy after the end of the EC co-funding

Publications, products or other relevant outputs or deliverables of the project are incorporated in the description of the different results.

Milestones

No	Milestone	Related WP	Status
1	Kick-off Meeting	1 (Coordination)	The kick-off meeting was carried out in May 2009 and was attended by representatives from all partner organisations
2	Website	2 (Dissemination)	The website is up and running since June 2009, and can be accessed through the following link: http://www.climatetrap.eu
3	Interim technical and financial report	1 (Coordination)	Delivered M18+2
4	Compilation of final report	1 (Coordination)	Current report; delivered M36+2

Deliverables

WP	Deliverable	Date foreseen	Date of achievement	Level of achievement
1	D1 - Proceedings of kick-off meeting	M2	M2	Finalised
	D5 - Interim Technical and Financial report	M18+2	M19	Finalised
	D12 - Final technical and Financial report	M36 +2	M36+2	-
2	D3 - Communication and dissemination strategy	M5	M5	Finalised
	D10 - Dissemination tools	M3, M12, M24	M2, M3, M36	Website and first project leaflet available; factsheets
3	D2 - Evaluation plan	M2	M2	Finalised
	D13 - Evaluation report	M36	M36 +2	-
4	D4 - Compilation of guidelines and adaptation plans	M9	M12	Finalised, but will be updated regularly until the end of the project
5	D8 - Report on impact and capacity assessment	M24	M34	Finalised
6	D9 - Combined analysis	M28	M36	Finalised
7	D11 - Proceedings of regional workshops	M30, M32, M34	M35	Finalised
8	D6 - State of the art training modules	M26	M36	Finalised
	D7 - Training manual	M28	M32	Finalised

Technical part

Annex I

Contract number: 2008 1108

Proposal title: Climate Trap- Climate Change Adaptation by TRaining, Assessment and Preparedness

Acronym: Climate TRAP

Starting date: 1 May 2009

Duration of the project 3 years

Reporting period: Final

Main partner: Public Health Services Gelderland-Midden

Number of associated partners: 8

Total amount of the project: € 519.435

EC Co-funding : € 300.000

First prefinancing payment: € 90.000

1. Executive summary

There is a growing realisation that climate change is one of the biggest environmental concerns facing the world today. With rising temperatures, changing sea levels and extreme weather patterns, it presents a major threat to public health. Climate change is expected to have consequences on economic development, food production, access to water, migration patterns and has the potential to affect transmission patterns of communicable diseases. Europe's citizens are concerned about the impact that climate change can have on their health and expect policy makers to act.

Climate TRAP project directly addressed Public Health organisations, which has to be prepared for changes in population's health needs due to climate change. The project looked into the existing best available surveillance or early warning systems and compiled guidelines to improve implementation and to prepare the public health sector to face health effects and problems related to climate change. The results of the impact assessment and predictions on public health capacity needs were linked to the compilation of the implemented surveillance and early warning systems in order to assure that these results can be used. For each topic

a fact sheet was produced with a concised overview of the most relevant data. Training sessions addressing both the public health professionals and first responders have been developed, in order to teach these stakeholders how to be prepared for changes in public health that emerge due to possible climate change effects.

2. Specification of the project

2.1 General Objective of the project:

The overall aim of Climate-TRAP was to strengthen the preparedness of the Public Health Sector on the health impact due to key stressors in climate change and in relation to key European action plans and adaptation strategies. Furthermore, it disseminated the results emerging from an inventory, analysis and compilation of these plans (in addition to already existing overviews). It examined the content and public health policy-related outputs from projects, networks and expert groups on adaptation plans in relation to the main expected health effects due to climate change, and its related early warning systems, surveillance and monitoring systems.

The public health sector needs to be prepared for changes or shifts in population based health effects due to climate change. An additional aim of this project was to inform health care workers and/or public health authorities on how to be better equipped and prepared. This means the knowledge about health effects in the public health sector, and the capacity of public health professionals with knowledge about climate change related health effects need to increase. Furthermore, the technical support and preparedness of the health sector needs to be upgraded according to a long term impact assessment of climate change effects on population level. Adaptation strategies, capacity and impact assessment and training were the keywords in this project.

2.2 Specific objectives of the project

Num ber	Title	Indicators	Related WP
1	Collect existing surveillance and early warning systems, and review their state of implementation in all EU and associated countries	Number of countries in which surveillance / monitoring / early warning system / adaptation plans that are (partially) implemented are inventorised	4
2	Describe the successful factors of implemented surveillance and early warning systems and describe them in a guideline;	For each of the selected health effects, at least one successfully implemented out of the collected surveillance and early warning systems is described	6
3	a) Use the different output scenarios (in size/geographical spread) in climate change and its impact on public health, in order to get insight in what has to be expected from the Public Health Sector to be prepared (in terms of knowledge and logistics) for climate change effects, using different timescales; b) Analyse the combined data of the compiled plans/guidelines, based on the	The number of scenarios to calculate the impact is an indicator in this project. At least 2 scenarios will be developed (a best- and worst-case scenario) for at least three health endpoints. At least five health effect scenarios produced by applied models are linked to the successful implementation of the described surveillance and early warning systems.	5

	surveillance or early warning systems for different important health effects, and the results of the impact and capacity assessment;		
4	Obtain the commitment of policy makers by making information available from the assessment, the scenarios and the best feasible preparedness in the public health sector in all EU and associated countries, through workshops and written material;	By combining the data from the inventory and the impact assessment, internationally harmonised surveillance plans can be developed. The number of policy makers in the public health sector of countries interested in adopting the harmonised surveillance plans or the number of plans that are implemented by new EU member states are indicators within Climate-TRAP	7
5	Develop training modules, both for the public health professionals and first responders, in order to learn how to be prepared for changes in public health due to possible climate change effects.	The number of pilot trainings and participants will be used as an indicator. The aim is to organise 4 pilot trainings across Europe. These pilot trainings will be evaluated through surveys of participants.	8

For each one of the objectives, the following outcome was expected:

1) An up to date inventory of the existing early warning and surveillance systems has been done in European Member States (27 MS + EFTA/EEA + acceding countries). The expectation was that not all countries have an implemented system, but that this information can be found (at least partly) in approximately 15 countries. In addition to an already existing inventory of these systems we would find out how far the implementation has progressed. The project received information, directly or through other sources (internet) of 23 countries in Europe.

2) Scenarios on the effects of climate change were going to be collected at research and meteorological institutes. This was going to be done in cooperation with these institutes in Europe. Models for the progress on various health conditions were going to be collected: heat stress, cold stress, effects of flooding, allergies and infectious diseases. The most suitable timeframe was going to be applied depending on the existing data and the predictability of the health endpoints. The added value was the willingness by member states to use plans of other countries.

3) The results from the inventories of early warning and surveillance systems and impact assessments were to be combined, to make a useful format for a uniform surveillance and reporting system for all countries or regions, whatever suits the endpoint prediction better.

4) The combined analysis was going to be applied in the different European member states. We expected that the analysis is useful for all countries in Europe. While the principles might apply to all countries (a uniform surveillance and reporting system), the details will differ between regions. For the implementation, some more specific planning and targeting is necessary. We expected to reach all EU member states during the regional workshops.

5) Training modules were going to be developed for public health professionals and first responders. Within Climate-TRAP, pilot trainings were going to be given to trainers in 3 different countries, aiming at 3 different regions. After the training modules have been improved, they should be used by the trainers that were

trained in pilot sessions and promoted during the regional workshops. They should be distributed to all EU member states, but to a minimum of at least 15 countries.

The quality of the training modules was well received and appreciated. The partners were able to adapt the modules to the local or regional needs. Participants said that they will use the material for further training of their own stakeholders. The assessment is that most trainers will adapt training modules to their own personal liking and they will use part of the provided slides.

The combination of meteorological models and climate models leading towards health effects models for different time periods, proved to be more difficult than expected. High quality data were achieved for ozone and heat modelling targets. For PM10 the modelling was feasible but the effects were too small compared to the effects caused by other influencing factors.

For floods and the infectious diseases the models could not catch the trends in a linear fashion. Thus, making it impossible to quantify effects in time. However, some results were gained for the geographical spread.

For allergic diseases, more specifically pollen related allergies, data were compiled which led to clearly identifiable future problems.

The use of early warning systems and surveillance systems was adequately brought into perspective. More countries than expected made steps to be prepared for future climate change events. This was especially the case for heat related systems or plans. Some countries were eager to learn from the good examples in place.

2.3 Overview of activities for the period covered in the interim report

W P	Activities	Deliverables	Date foresee n	Date of achiev ement	Level of achievement (measured by indicators)	Problems encountered	Action to be taken to overcome the problem
1	Organisation of kick-off meeting	Proceedings of kick-off meeting, including agreement on data collection strategy	M2	M2	Finalised	None	
	Collecting data and writing	Interim technical and financial report	M18+2	M19	Finalised	None	
	Collecting data and writing	Final technical and financial report	M36+2	M36+2	-	Slow deliverance of some partners	Frequent reminders
2	Elaborate a dissemination plan, defining a dissemination strategy	Communication and Dissemination Strategy	M5	M5	Finalised	None	
	Produce material	Dissemination tools	M3, M12 and M24	M2, M3 M36	Website Leaflet available	None	
3	Describe how the project (specifically the different indicators) will be evaluated	Evaluation Plan	M2	M2	Finalised	None	
	Describe an evaluation of the progress and completion of the project	Evaluation Report	M36	M36+2	-	None	
4	Collect and compile data	Compilation of existing guidelines, surveillance, early warning & adaptation plans	M9	M12	Finalised and later updates	Slow reaction from stakeholders	Frequent reminders
5	Collect, analyse and report	Report on capacity and impact assessment	M24	M34	Finalised	Delayed due to lack of models	For some stressors a more

							semi-quantative approach chosen.
6	Collect, analyse and report	Combined analysis and evaluation of early warning and surveillance systems	M28	M36	Finalised	Delayed due to delay WP5	
7	Report	Proceedings of regional workshops	M34, Workshops held in M30, M32, M34	M35	Finalised	None	
8	Collect data, produce modules	State of the art training modules	M26	M36	Finalised	None	
	Write manual	Training Manual	M28	M32	Finalised	None	

3. Technical implementation of the project

Activities related to project objectives (core work packages)

WP4 Inventory of Guidelines

Summary of progress towards the related specific objective

The objective of this WP was to collect existing surveillance and early warning systems, and to review their state of implementation in the EU and associated participating countries. Implemented surveillance and early warning systems and their success factors are described in a report.

Methodology applied as planned /Involvement of partners and target groups

All partners have been involved in collecting early warning and surveillance systems and adaptation plans from all countries in Europe. Each partner was responsible for approximately 3 countries. A questionnaire for collecting the information was developed by the WP leader, MUV. Information was gathered from various types of organisations, but mainly from national and regional governments.

Early warning and surveillance systems that have already been implemented were collected through EU and associated member states. A validity check on the collected data was performed by experts within the Climate-TRAP consortium and by Ministries in Member States which deal with the topic of climate change and health. This validation was done in writing after the data had been collected. The main focus was to assess if those systems were already implemented.

The preliminary report was sent to all ministries of Environment and Health in Europe. They were asked to verify the contents and provide supplements for their country if information was lacking. 34 representatives from 19 countries in total provided feedback on this.

Coordination with other projects or activities

Contact was made with representatives from WHO, to discuss possible overlap in project activities. We were informed by them on activities that were already carried out and published, and could be used within Climate-TRAP. This included results from the EURO-HEAT project.

Outcomes and deliverables achieved and other significant results (impact)

The results are described in Deliverable 4, the Inventory of Guidelines and their Implementation. The report has been updated regularly until the end of the project, to enable inclusion of recent information. Several ministries kept on providing information about their guidelines up to the end of the project. It contains information from 23 different countries. In addition, the information is summarised in an excel file. Early warning systems, surveillance systems and adaptation plans were collected on all topics that are dealt with within Climate-TRAP (heat, vector-borne diseases, food-borne diseases, water-borne diseases, flooding, atopic diseases, air pollution). For some topics, such as heat, many

countries already have warning systems in place, although not all of them have been tested / evaluated. For other topics (e.g. atopic diseases) only limited information was found. The information from this WP has been used together with the information from WP5 to develop guidelines

Problems encountered /How were problems resolved

Compared to the original timeline, it took more time to prepare this deliverable than was anticipated in the project proposal. This was due to the fact that we were under the impression that a similar inventory had already been carried out by WHO, which turned out to be unavailable. A final draft of the deliverable was available somewhat later than initially anticipated. Since we decided to include new information until the end of the project, the final version of the deliverable was completed at month 36 of the project. Completing the WP and the deliverable did not take an additional amount of person days compared to the original budget, since the extra time consisted for a large part in waiting for a response from stakeholders.

WP5 Impact and Capacity Assessment

Summary of progress towards the related specific objective

The objective of WP5 is to use different output scenarios (in size / geographical spread) in climate change and its impact in public health, in order to get insight in what has to be expected from the Public Health Sector to be prepared for climate change effects, using different timescales.

Methodology applied as planned

The activities in the WP were carried out mainly by partner UMU, who is also WP leader. They have been working on performing an impact assessment for various stressors, including heat, air pollution and food-borne diseases, by using existing models. For other stressors (vector-borne diseases, flooding, atopic diseases and water-borne diseases) prediction models were not available, and literature analyses were carried out to make impact assessments.

Involvement of partners and target groups

All partners were involved in the creation of this deliverable, by providing feedback on the output and text.

Coordination with other projects or activities

There was no direct connection between this work package and other EU projects.

Outcomes and deliverables achieved and other significant results (impact)

For heat, air pollution (specifically ozone) and food-borne diseases it was possible to perform a quantitative assessment by using different models. For other stressors, this was more difficult.. A quantitative assessment has not been made due to lack of data, but the available semi-quantitative information has been incorporated in the WP report. This consists of a description of the current situation, risk areas in Europe, and visible trends. In addition, a qualitative capacity assessment has been done, based on the results from the impact assessment. The results are applicable for the different European regions, as not all countries will cope with the same problems. The situation was modelled for different timescales, up until 20 years forward.

Problems encountered/How were problems resolved

This work package suffered a delay. This was due to the fact that models were not available for all stressors, as we expected at the beginning of the project. An alternative strategy to come up with an impact assessment had to be found for some stressors, in the form of a literature search and qualitative assessment. This took more time than originally anticipated.

WP6 Combined Analysis of Early Warning, Surveillance Systems and Assessment Outcome

Summary of progress towards the related specific objective

The objective was to describe the successful factors of implemented surveillance and early warning systems and describe them in a guideline, combined with the results from the impact assessment.

Methodology applied as planned

Within WP6, the data from the 2 previous WPs (early warning & surveillance systems, adaptation plans and impact assessment) were analysed for the main health stressors related to climate change. This is presented in the form of factsheets. For each stressor a "how-to-do" guideline has been produced based on the best implemented systems across Europe, also specific for the different European regions.

Involvement of partners and target groups

This WP is lead by UMIT. Since WP6 builds further on the results of WP4 and 5, it could only fully start when the results from these WPs became available. All partners were able to comment on the outcome of the WP.

Coordination with other projects or activities

No specific coordination with other projects.

Outcomes and deliverables achieved and other significant results (impact)

The work that was carried out consisted of collecting good practices and examples of activities that are carried out by regions or countries in response to climate change related activities (e.g. heat waves). This has been linked to the information from the impact assessment. By using that information, region-specific guidelines have been developed for all topics for which sufficient information was available. These guidelines describe which topics will become an issue in the future in a region, and which adaptation plans could be implemented to prepare for this. E.g., if there is a chance that a country will be affected by a significant increase in Lyme Disease, it is important to implement an early warning or surveillance system that incorporates this disease.

Problems encountered/ How were problems resolved

Due to delays in WP5, the deliverable within this WP was also delayed, since the results were building on the results of WP5.

WP7 Implementation of Early Warning Systems, Surveillance and Guidelines of Preparedness

Summary of progress towards the related specific objective

This WP aims at obtaining commitment of policy makers by making the information available from WP4, 5 and 6, in particular the guidelines that have been developed. This was aimed at all EU and associated Member States through 3 regional workshops and written material.

Methodology applied as planned

A first incentive by the partners was to collect names of people that could attend these workshops. The results from the combined analysis have been made available to a large group of stakeholders at European ministries. Workshops have been organised in 3 regions in Europe (Southern, Central-Eastern and North-Western Europe) and other dissemination tools (such as leaflets) were produced to spread the information about the workshops.

Involvement of partners and target groups

All workshops had participants from a range of neighbouring countries. People that were invited to these workshops are mainly working at (national) governments, in the fields of climate change and / or health. They are decision makers who can implement changes in existing protocols, or can advice about this.

Coordination with other projects or activities

No specific coordination with other projects.

Outcomes and deliverables achieved and other significant results (impact)

For each workshop a workshop report has been produced.

Problems encountered/ How were problems resolved

It was difficult to get the curative health sector involved in participating in the workshops. In communication with curative health professionals they do not yet see the need to focus on climate change related health effects in practice. Although they are interested in the topic. It is recommended to focus training in the future, incorporated to continuous professional development activities, on the curative health sector. This has to be done within the current national structures for health care professional development.

WP8 Training of Public Health Professionals

Summary of progress towards the related specific objective

The main objective of WP8 is to develop training modules, both for public health professionals and first responders, in order to learn how to be prepared for changes in public health due to possible climate change effects.

Methodology applied as planned

This WP used information obtained in the other WPs, as well as information obtained by a literature search. A division of the organisation of pilot trainings was made between partners. Three partners organised this (HGM, UMIT and REGVEN).

Involvement of partners and target groups

The main target group consisted of public health professionals, but general practitioners and people working in elderly care were also addressed. Training modules were developed on all Climate-TRAP topics, and the information within the modules was prepared in such a way that they contain information specifically for the target group in question.

Coordination with other projects or activities

Some coordination took place with WHO in the content of the training modules. At the end of the project there was no final word from WHO yet on the improvement of some of the content related training modules. These will be incorporated at a later moment as part of ongoing activities within the coordinators' organisation.

Outcomes and deliverables achieved and other significant results (impact)

If an estimate on the expected health effects in the near future can be given, it is important to prepare public health professionals on what can be expected, and how they can prepare on a potential rise in health effects. Training modules were developed, and during Climate-TRAP, 4 pilot training sessions (in the Netherlands

(the Hague), Austria (Linz and Hall) and Italy (Venice)) were organised, to improve the training modules. The content of the training was based on the outcomes of the capacity assessments, which were carried out within work package 5, and on a scientific literature study. The presentations of the modules were translated in 4 languages besides English (Dutch, Swedish, Italian, German), as to make them available to a larger public. The general outline of the trainings follow the outline of usual Public Health trainings, which are set up according to European standards of social medicine courses, and competences of community medicine curricula.

Problems encountered/ How were problems resolved

There were no problems encountered in this part of the project.

4. Annexes

1. See separate deliverables
2. Minutes of meetings
3. Definitions
4. Evaluation report Östersund workshop

Annex 1

Deliverables as separate documents

Climate-TRAP Kick-Off Meeting, Minutes

21-22 May 2009, Amsterdam, the Netherlands

Agenda

Time	Programme	Ad
<i>21 May</i>		
13:00	Opening	1
13:05	Introduction Participants	2
13:15	Outline Climate-TRAP	3
13:35	Inventory of Guidelines (WP4)	4
15:00	Impact and Capacity Assessment (WP5)	5
17:00	Combined Analysis of Early Warning, Surveillance Systems and Assessment Outcome (WP6)	6
18:00	End of Day 1	

<i>22 May</i>		
9:00	Implementation of Early Warning, Surveillance Systems and Guidelines of Preparedness (WP7)	7
10:00	Training of Public Health Professionals (WP8)	8
11:00	Other work Packages (WP1, WP2, WP3)	9
13:00	End of Day 2	10

Participants

Participant	Organisation	Country
Peter van den Hazel	Public Health Services Gelderland Midden	the Netherlands
Joris van Loenhout	Public Health Services Gelderland Midden	the Netherlands
Hedwig Hoes	Public Health Services Gelderland Midden (internship)	the Netherlands
Bertil Forsberg	Umeå University	Sweden
Stefano Veronese	Agenzia Regionale per la Prevenzione e Protezione Ambientale del Veneto	Italy
Francesca Pozza	Regione del Veneto	Italy
Daniela Negri	Regione del Veneto	Italy
Erik Petersen	Network for Children's Health and Environment	Germany
Rene Tõnnisson	Baltic Innovation Agency	Estonia
Hanns Moshhammer	Medical University Vienna	Austria
Igor Krampač	Regional Public Health Institute Maribor	Slovenia
Thuy Linh Cao	University for Health Sciences, Medical Informatics and Technology	Austria
György Berencsi	Hungarian Association for Environmental Health	Hungary

Minutes

- 1) The meeting was opened by the project coordinator, Peter van den Hazel.
- 2) From each partner organisation, at least one representative was present during the meeting. Everyone introduced him/herself briefly. The project consortium consists of a multidisciplinary group, with a broad diversity in backgrounds, e.g. medicine, toxicology, environmental epidemiology, meteorology, politicology, geology, public administration, psychology.

- 3) Peter van den Hazel presented a keynote on climate change-related health effects. Joris van Loenhout gave a short outline of the project and the different work packages (presentations are attached).
- 4) Hanns Moshammer is work package leader for WP4, Inventory of Guidelines. He gave a presentation on the main tasks of this WP (presentation is attached). When inventorising early warning and surveillance systems, the focus should be on early warning systems, since surveillance systems are less suitable for acute problems.

Within the field of climate change, a distinction can be made between mitigation (prevention of climate change) and adaptation. Climate-TRAP will focus on the latter: we assume there are going to be effects, but how can the (public) health sector prepare for this?

One of the indicators of the project is that information on early warning and surveillance systems for the various health indicators should be collected in all EU countries of Europe, with a minimum of 15. Each partner will retrieve information in several countries, according to the table below. This classification is based on languages and already existing connections with countries/organisations.

Partner	Countries
HGM (NL)	NL, BE, UK
UMU (SE)	SE, FI, NO, DK
REGVEN (IT)	IT, ? ^{a)}
NCHE (DE)	DE, PL
BIA (EE)	EE, ?LV, LT ^{b)}
MUW (AT)	FR, ? ^{c)}
RPHI MB (SI)	SI, HR ^{d)} , ES
UMIT (AT)	AT, CH, CY
HAEH (HU)	HU, RO, SK

- a) One of the countries where a lot of information could potentially be found is Portugal. The partners from REGVEN would try to retrieve this information as well.
- b) Rene from BIA was not certain whether his organisation would be able to find information from countries besides Estonia, but he would try to collect early warning and surveillance systems from Latvia and Lithuania as well.
- c) Since MUW is work package leader for this work package, Hanns offered to try and obtain information from some additional countries. Member states that are not listed yet (apart from PT) are: BG, GR, IE, LU, MT, CZ (associated: IS, MK)
- d) HR is the official abbreviation of Croatia.

Apart from this, some transnational organisations that are working in this field should be contacted, such as Bettina Menne from WHO (**Action Stephan**) and Jan Semenza from ECDC (**Action Joris**).

Hedwig Hoes performed an initial search for some examples of early warning and surveillance systems, as part of her internship at HGM. She collected information from Belgium (national heatplan, monitoring of allergens, monitoring mosquitos, skin cancer registration) and Austria (heatplan under development, website on up-to-date pollen counts).

In the attached excel file (Annex I), an overview can be found of different climate change-related stressors, and accompanied early warning and/or surveillance systems that were known within the consortium. Effects associated with the stressors are also listed. György will send a list with 58 infectious diseases that are being monitored (some of them associated with climate change) to Peter (**Action György**).

It is important to be consistent in the terms we are using and the information we are looking for within Climate-TRAP. This can be achieved by writing down definitions and criteria of the main keywords. These should be checked with WHO and UNEP. Hanns will prepare a draft definitions document, which will be added to the minutes as an official annex (Annex II) (**Action Hanns**).

A template for the collection will be developed by Hanns and HGM (**Action Hanns, Joris**). By november, information on the early warning and surveillance systems from all countries should have been collected (**Action all**).

- 5) Bertil, work package leader for WP5: Impact and Capacity, presented the outline of this WP and gave some examples of models related to climate that are currently used (presentation is attached). It can already be said that quantitative data are not available for all health effects that we will review. When this is the case, we should try to obtain qualitative data, or even maps that show health endpoints. Decisions should be made on the models/information that we will use and the stressors that will be reviewed.

Models that were suggested by the Commission are RAINS and IMAGE, so they should at least be taken into account. The use of maps can be useful, especially for allergens (pollen distribution). One difficulty is that the information that we will obtain can not be very detailed, since the used models are often very complex. The analyses will mainly be performed by UMU, but partners should assist by collecting models and results from models that have already been done, like CEHAPE and EDEN (**Action All**).

The stressors from Annex I will be taken into account, as far as information is available. In Germany, there is a problem with diseases that are imported from another region, such as West-Nile and Chickungunya. György has access to a map on mosquito distribution in Europe, which he will spread among the partners (**Action György**). The identified models should not only focus on short-term health effects, but also long-term, such as skin cancer.

- 6) The work package leader of WP6: Combined Analysis of Early Warning, Surveillance Systems and Assessment Outcome, Stephan Böse, was not able to attend the kick-off. Within this WP, the information retrieved from the Inventarisation and Impact and Capacity Assessment will be combined, to be able to prepare stakeholders on what they can expect, in relation to climate change-related health effects. This will be in the form of a handbook with stressors for the different countries.
- 7) WP7: Implementation of Early Warning, Surveillance Systems and Guidelines of Preparedness will be coordinated by HGM. Within this work package, the results of WP6 will be transferred to stakeholders, in this project mainly policy makers. It should be identified which information is needed in the different countries, and which early warning systems they should thus implement. This information should become available on a regional level, with the exact scale depending on the stressor. Within the WP, information is only used from other WPs, no new information is generated.

Workshops will be given in 3 regions in Europe, to which stakeholders are invited to learn more of our results. The workshops will be organised in Italy (South), Slovenia (Central and East) and Sweden (North and West), although the participation of the different countries to a certain workshop is flexible. People that should attend are the ones responsible for surveillance systems in their countries. By the time the workshop is organised, we should have built a network after obtaining all the information, which makes it easier to locate the correct people. Collaborative partners will also be invited to the workshops, if it suits their expertise.

- 8) HGM is work package leader of WP8: Training of Public Health Professionals. The training modules that will be developed within Climate-TRAP are aimed at first responders (in hospitals) and public health professionals. For her internship, Hedwig is currently contacting these stakeholders, on the current status and their expected needs. She presented some preliminary results of this survey (presentation is attached). The main target group to train within Climate-TRAP will be trainers, who can in their turn transfer their knowledge to a larger group of stakeholders. The different training modules (for each stressor, including trauma-induced effects by flooding) will be developed in the form of powerpoint presentations, the training manuals will provide information on how to set up a training.

Within Climate-TRAP, 3 pilot training will be organised: in the Netherlands, in Austria and in Italy. The exact persons that will be invited to these pilot trainings will be decided in a later stage of the project.

- 9) The horizontal work packages (a) Coordination, b) Dissemination, c) Evaluation) were discussed:
- a. To maintain internal communication in the project, teleconferences will be held every 2 months. The first one will be held in the end of June or beginning of July, the exact date will be communicated once it is established. Since most partners use Skype, this might be the easiest way to organise it.

A project logo will be developed. Any suggestions can be send to Peter, who will make a final version (**Action Peter**).

HGM will spread a declaration on how to proceed when it concerns external communication, like acknowledgement of articles (**Action Joris**).

A digital form will be sent to all partners, where they can fill in their organisation's account information, for receiving a prepayment of 40%. A time sheet has been prepared by the EU, which should be used to declare the number of hours spent in Climate-TRAP each week. It was decided that these sheets should be sent to HGM each 6 months, so the first time should be after October (**Action all**).

Since there are very few partner meetings scheduled within Climate-TRAP, we should use other meetings to come together. A first suggestion for this was made by Daniela, namely the Regional Open Days in Brussels from 6-8 October 2009. A partner meeting could be scheduled on the afternoon of 5 October. Daniela will check whether REGVEN will be able to host this (update: this has been confirmed, the partner meeting will be held on the afternoon of 5 October 2009). Since this meeting is not budgeted in the proposal, alternatives to come up with travel and subsistence should be found (e.g. the use of money remaining from the kick-off meeting).

- b. A communication and dissemination strategy will be developed by HGM, probably before the deadline of Month 5 (**Action HGM**). It was also decided to already develop a leaflet, instead of waiting until Month 12 (April 2010), since it might be beneficial to already spread information on Climate-TRAP (**Action HGM**). The website will be hosted by Hanns. At this point, general information should be put on there, and also a reference to the HENVINET facebook, since the same stakeholders are involved in that project. The address of the website will be www.climatetrapp.eu
- c. Performing an evaluation is obligated by the EU, but is not considered a major issue. REGVEN is WP leader, they will develop a short evaluation plan (**Action REGVEN**). Some issues that should be in there are: discussion of shortcomings during the different project meetings, fulfilment of indicators, evaluation of pilot trainings etc.

10) Before the meeting ended, some small issues were discussed.

- a. Since the project is funded for only 60%, we should try and find a way to generate additional funding, e.g. from collaborating partners. Possibly, the city of Stockholm would contribute, Bertil will be informed on this by them if this is the case.
- b. The costs for the kick-off dinner have been paid in advance by HGM, and will be settled later on.

Action points

	Action Point	Who?	Deadline
1	Contacting Bettina Menne from WHO on early warning and surveillance systems	Stephan	July 2009
2	Contacting Jan Semenza from ECDC on early warning and surveillance systems	Joris	July 2009
3	Preparation of draft definitions document	Hanns	June 2009
4	Template for collection of early warning and surveillance systems	Hanns, Joris	June 2009
5	A collection of all information on early warning and surveillance systems	All	November 2009
6	Looking for models related to Climate-TRAP topics	All	Coming months
7	Spread information on mosquito distribution in Europe	György	June 2009
8	Development of project logo	Peter	July 2009
9	Spreading declaration on external communication	Joris	June 2009
10	Returning filled in time sheets to HGM	All	November 2009
11	Communication and dissemination strategy development	HGM	August 2009
12	Development of project leaflet	HGM	August 2009
13	Preparation of evaluation plan	REGVEN	June 2009

Climate-TRAP Partner Meeting, Minutes

5 October 2009, Brussels, Belgium

Agenda

Time	Programme
21 May	
12:00	Opening (1)
12:05	Minutes of last teleconference (2)
12:15	Inventory of Guidelines (WP4) (3) <ul style="list-style-type: none"> • Status of data collection • Deliverable 4: compilation of existing guidelines, surveillance, early warning & adaptation plans
13:15	Impact and Capacity Assessment (WP5) (4) <ul style="list-style-type: none"> • Current activities • Deliverable 8: report on capacity and impact assessment
14:15	Other content-related WPs (5) <ul style="list-style-type: none"> • Combined analysis (WP6) • Implementation (WP7) • Training of professionals (WP8)
15:15	Coordination (WP1) (6) <ul style="list-style-type: none"> • Structure final report • Financial contribution
16:00	Dissemination (WP2) (7) <ul style="list-style-type: none"> • Communication and dissemination strategy • Website
16:20	Evaluation (WP3) (8)
16:30	Meetings (9) <ul style="list-style-type: none"> • Press conference 07-10-09 • Climate Conference Copenhagen
17:00	End of Programme (10)

Participants

Partner	Name	Country	E-mail
HGM	Peter van den Hazel	Netherlands	peter.van.den.hazel@hvdgm.nl
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HAEH	Szonja Andrassev	Hungary	anszonja@gmail.com
VROM	Tom van Teunenbroek	Netherlands	tom.vanTeunenbroek@minvrom.nl

Minutes

- 1) The meeting was opened by Peter van den Hazel. All participants introduced themselves briefly. Merit Tatar represented Rene Tönnesson and Szonja Andrassev represented György Berencsi, who were both not able to attend the partner meeting.
- 2) The remaining action points from the previous telephone conference were discussed:

- a. 5) The collection of information on early warning and surveillance systems was discussed under agenda point 3;
 - b. 6) Looking for models was discussed under agenda point 4;
 - c. 10) Returning time sheets to HGM will remain on the agenda;
 - d. 11) The communication and dissemination plan will be discussed under agenda point 6;
 - e. 12) The first project leaflet has been finalised;
 - f. 17) Hanns has received the logo of BIA from Rene;
 - g. 18) It was still unclear whether Bertil could find someone to attend a meeting on Climate and Air Pollution, since there were overlapping meetings.
- 3) WP4, "Inventory of Guidelines", was discussed. Hanns gave a presentation on the current status of the WP (see attached). Until then, Hanns only had information from Austria and France, that he collected himself, and information from Slovenia, from Igor. The question rose what information was already collected by WHO, but according to Dafina they are not collecting the same information that is collected within Climate-TRAP, only a few examples. Since it is mentioned in our proposal that we would collect information from 15 different countries, we should make sure we have that. It turns out to be relatively easy to collect the information from your own country, but more difficult to identify the relevant organisations in other countries. Since we will describe "good practices" of early warning and surveillance systems within WP6, we need to collect detailed information on all different topics from the questionnaire.
- In conclusion, we should continue in the same way that we originally agreed upon. If information from the questionnaire is missing for certain countries, we should send a version including the blanks to the ministry, which might stimulate them to fill in the additional information.
- An overview for the status of each partner was given. The representatives from HAEH and BIA were unaware of the status of their colleagues. HGM has obtained part of the needed information from the Netherlands and Belgium, and identified a first contact in the UK. RPHI MB has filled in the complete questionnaire for Slovenia, and contacted Spain and Croatia. Both those countries asked to be a partner. What we can offer them is participation in one of the workshops that we are organising in the final project year. UMIT is gathering the information from Austria, together with MUV. Erik will no longer perform the tasks of NCHE, so Stephan has taken over this job. It was agreed that Hanns would focus on Austria, and Stephan would try and collect additional information from Poland and Ireland. The new deadline for sending information of this deliverable to Hanns is **December**, so Hanns can finalise the deliverable in **February**. Hanns will prepare a table, which will give a summary of the collected information from the different countries (**Action Hanns**).
- 4) Bertil gave an overview of the status of WP5, the "Impact and Capacity Assessment". Some of the models that are needed are already collected by UMU (on heat, ozone, air pollution). It was discussed which contributions are expected from the other partners. One task would be to identify methods for modelling. It will be discussed later who will search for baseline data, e.g. eurostats can be used for some tasks. Models are still needed on climate, mortality, health outcomes etc.
- On the question whether we will take an autonomous increase in population into account when performing a capacity assessment, the decision was made to express the increase in diseased as a percentage, to avoid having to take into account a lot of different uncertainties.
- An offer was made by Joint Research Centre to assist in this WP, contact should be made with them on this (**Action HGM**).

- 5) Of the other content-related WP's, WP6 (Combined Analysis) was discussed first. Since this WP has not started yet, there is not much to decide in this stage. The eventual guidelines should consist of real health warning systems, not just forecasts. Different guidelines might be developed for the different regions in Europe. There was no news with respect to WP7 (Implementation). For WP8 (Training), information that will be implemented in a training can already be collected. It might be good to organise a pilot of the pilot training next year, e.g. during the EUPHA conference (**Action HGM**). UMU already provides courses in the field of climate and health, which might be useful for Climate-TRAP. Additional information can be collected through health inspectorates.
- 6) WP1 (Coordination) was discussed. Rene has spread a list with FP7 projects, that might be related to Climate-TRAP. This list was divided between the partners, to look at into more details, and if there might be a benefit to contact coordinators. Stefano would look into projects under the heading "Earth system" and "Future climate" (**Action Stefano**), Bertil will check projects on "Emission and pressures" (**Action Bertil**), Stephan would look into "Response strategies" (**Action Stephan**), HGM would check the rest (**Action HGM**).
A first version of the contents of the final report was discussed. Apart from food-borne diseases, water-borne diseases should also be mentioned there. Apart from the categories mentioned in the contents, other stressors are also important for ministries, such as the influence on obesity. Within WHO, a list is available with indirect effects that can be expected. However, since this would go beyond the scope of Climate-TRAP, we should include these effects in our report, but mention that we don't have the means to look into it. For stressors that we do look into, it would be good to show the advantage of implementing a certain system by means of a cost-benefit analysis. The main stakeholder should be ministries, since public health might be difficult to reach.
The workshop that is planned in Umeå will be organised in collaboration with NPHI, which gives it a more official character.
- 7) There is currently no discussion needed on WP2, Dissemination. The different cooperations will be added to the communication and dissemination plan, which is still under construction.
- 8) No items to discuss on WP3, Evaluation.
- 9) Next point on the agenda were future meetings. Peter will give a press conference on the 7th of October. This event will also be used to spread leaflets. Peter and Hanns will probably participate in the Climate conference in December. Tom mentioned that attending this conference would not be very useful, since the main topic there is CO₂. Organising an event during the 5th ministerial conference in Parma would be more useful. During this meeting, a poster could be presented, and the questionnaire on early warning systems could be brought forward. Peter will make an appointment with Dafina from WHO (**Action Peter**), to discuss knowledge transfer between WHO and Climate-TRAP.
- 10) Some final remarks were discussed. Tom suspects that there are very few early warning systems in Europe, that are actually linked to health monitoring. This should be mentioned in the first section of this deliverable, to manage the expectation of the people grading this deliverable.
The next meeting will be a teleconference, on the 12th of November, from 13:00-14:00 (Western European time).

Action points

	Action Point	Who?	Deadline
5	A collection of all information on early warning and surveillance systems	All	December 2009
6	Looking for models/ methods related to Climate-TRAP topics	All	Coming months
10	Returning filled in time sheets to HGM	All	November 2009
11	Communication and dissemination strategy development	HGM	November 2009
18	Find Someone to attend meeting on Climate + Air Pollution	Bertil	ASAP
19	Prepare a table to summarise the questionnaire information	Hanns	Already Done
20	Contact JRC about collaboration on models	HGM	End of 2009
21	Organising pilot training, e.g. during EUPHA	HGM	Early 2010
22	Look into “Earth system” and “Future climate” (FP7)	Stefano	January 2010
23	Look into “Emission and pressures” (FP7)	Bertil	January 2010
24	Look into “Response strategies” (FP7)	Stephan	January 2010
25	Look into all other topics (FP7)	HGM	January 2010
26	Appointment with Dafina from WHO	Peter	Early 2010

Key Messages Climate-TRAP Partner Meeting 8 June Munich

Present: Joris van Loenhout, Peter van den Hazel, Stephan Boese-O'Reilly, Hanns Moshhammer, Bertil Forsberg, Gyorgy Berencsi.

- WP4 report will be sent to Ministries of Health & Environment in Europe by HGM. This will be done by regular mail, accompanied by a table of the country in question, describing which information is present or still missing (**Action HGM**);
- Bertil will contact Jan Semenza, asking him to review the information in WP4 and WP5 on behalf of ECDC (**Action Bertil**);
- An amendment to the contract is needed, since the text in there implies we will quantify all stressors, which is not possible;
- Bertil will ask Elisabeth Lindgren for models on vector-, food- and water-borne diseases (**Action Bertil**);
- In the WP5 document on “drinking water”, Bertil will add a section on “recreational water”. In addition, Bertil will try to quantify more information (**Action Bertil**);
- There is no overlap in mortality due to heat and due to air pollution;
- Bertil has prepared a chapter on aero-allergens, which so far only includes house dust mite. The decision was made that Bertil would add pollen to this chapter (**Action Bertil**), eczema was not considered a climate change related health problem;
- As discussed earlier, the idea was to create guidelines in the form of fact sheets, personalised for regions / countries in Europe. How regions would be grouped depends on the topic of the fact sheet (e.g. for heat there could be 1 or 2 fact sheets);
- Within each fact sheet, objective information on existing adaptation plans would be included;
- During the regional workshops, posters of cities could be prepared, to serve as an example of everything that needs to be taken into account. Bertil will discuss this with Christopher (**Action Bertil**);
- One general fact sheet on capacity will be prepared. Bertil will ask Jan Semenza for information on this topic as well (**Action Bertil**);
- References in fact sheets will be added using Endnote, in Pubmed style;
- For the fact sheet on heat, Bertil will select one model as the standard. Each partner needs to revise the impact assessment as well as the fact sheet on heat once more (**Action All**);
- There will be at least one fact sheet on ozone, no fact sheet on Particulate Matter;
- For the topic water-borne diseases, recreational water will be added. Jan Semenza and Peter will review the information (**Action Bertil and Peter**). Monitoring systems from countries are needed (**Action All**);
- At least two food-borne diseases will be included: salmonella and campylobacter. Listeria might also be relevant, this needs to be decided;
- For allergens, there will probably be 2 fact sheets: north and south. During the training sessions, the message should be given that physicians could come into contact with people exposed to new, upcoming allergens;
- Hanns already prepared a draft fact sheet on flooding. Coastal flooding should be included in the discussion of WP5 (Impact Assessment) (**Action HGM**);
- Two topics belonging to the category miscellaneous are UV radiation and oak processionary caterpillars. Since the relation to climate change is not clear, they will not be included in a separate fact sheet, only in the general WP6 report;
- Peter prepared a draft overview on capacity. It was stated that capacity needs should not be quantified, since this would lead to false expectations. Peter will include remarks from partners, and distribute the new version among everyone (**Action Peter and All**);

- Stephan will take over the work from the people who have been working on WP6 (**Action Stephan**);
- The pilot training in Austria will take place in Linz on 28th of September;
- The deadline for all WP5 information is 30th of June (**Action Bertil**);
- The deadline for all WP6 information is 20th of August (**Action Stephan**).

Annex 2 Definitions

For some relevant items which form the basic content of the CLIMATE-TRAP project we have selected some useful definitions. The definitions are also part of Deliverable 1: Agreement of Data Collection Protocol.

- Atopy:** A clinical hypersensitivity state or allergy with a hereditary predisposition; the tendency to develop an allergy is inherited, although the specific clinical form (such as hay fever or asthma) is not. Typical atopic diseases include eczema (atopic dermatitis), allergic conjunctivitis, allergic rhinitis and (allergic) asthma. (Source: Dorland's Medical Dictionary for Healthcare Consumers, <http://www.mercksource.com>)
- Climate change:** Any long-term change in the patterns of average weather of a specific region or the Earth as a whole. Climate change reflects abnormal variations to the Earth's climate and subsequent effects on other parts of the Earth, such as in the ice caps over durations ranging from decades to millions of years. (Source: Wikipedia)
- Competent workforce:** Train health-care workforce (e.g., ability to diagnose chikungunya fever); Implement emergency preparedness training across different sectors (e.g., housing, social services, health, etc); Strengthen capacity of public health professionals. (Source: Semenza JC, Menne M: Climate change and infectious diseases in Europe. Lancet Infect Dis 2009; 9: 365–75.)
- Contraction and Convergence:** Conflicting actions: carbon emission must be reduced to avoid the worst outcome of climate change. Poor countries, however, need rapid development to prevent poverty making adaptation to climate change impossible. (Source: Global Commons Institute. <http://www.gci.org.uk/>(accessed Nov 27, 2008)
- Disease surveillance:** An epidemiological practice by which the spread of diseases is monitored in order to establish patterns of progression. The main role of disease surveillance is to predict, observe, and minimise the harm caused by outbreak, epidemic, and pandemic situations, as well as increase our knowledge as to what factors might contribute to such circumstances. A key part of modern disease surveillance is the practice of disease case reporting. (Source: Wikipedia; comment: see also Wikipedia for other uses of the word "surveillance", hence it is recommended to specify it by adding the word "disease"!)

Ecological indicator: Information about ecosystems and the impact human activity has on ecosystems to groups such as the public or government policy makers. Ecosystems are complex and ecological indicators can help describe them in simpler terms. (Source: Wikipedia)

Ecosystem: A natural unit consisting of all plants, animals and micro-organisms (biotic factors) in an area functioning together with all of the physical (abiotic) factors of the environment. An ecosystem is a unit of interdependent organisms which share the same habitat. Ecosystems usually form a number of food webs which show the interdependence of the organisms within the ecosystem. (Source: Wikipedia)

Event-based epidemic intelligence: Early identification of infectious disease threats related to climate change. Screening of (international) news media and other sources; Case reports (e.g., clinician-based reporting); Science watch (e.g., screening scientific reports for discoveries and new findings); Interdisciplinary reporting on infectious disease threats (e.g., from agriculture, industry, environment, etc). (Source: Semenza JC, Menne M: Climate change and infectious diseases in Europe. Lancet Infect Dis 2009; 9: 365–75.)

Ensemble prediction systems (EPS): Mathematical procedure to forecast the exceedance of the heat threshold with respect to different exceedance probabilities.

Food borne infections: Climatic factors influence the growth and survival of pathogens, as well as transmission pathways. Increased ambient temperatures increase replication cycles of food-borne pathogens, and prolonged seasons may augment the opportunity for food handling mistakes. (Source: Semenza JC, Menne M: Climate change and infectious diseases in Europe. Lancet Infect Dis 2009; 9: 365–75.)

Habitat: An ecological or environmental area that is inhabited by a particular animal or plant species. It is the natural environment in which an organism lives, or the physical environment that surrounds (influences and is utilised by) a species population. (Source: Wikipedia)

Heat wave: A prolonged period of excessively hot weather, which may be accompanied by high humidity. There is no universal definition of a heat wave; the term is relative to the usual weather in the area. (Source: Wikipedia)

Integrated network for environmental and epidemiological data:

Network with the capacity to connect epidemic intelligence and infectious disease surveillance with meteorological, entomological, water quality, remote sensing and other data, for multivariate analyses and predictions. (Source: Semenza JC, Menne M: Climate change and infectious diseases in Europe. *Lancet Infect Dis* 2009; 9: 365–75)

Medium-range heat information: The models are initialised using observed data from different kinds of weather observations (e.g. weather stations, radiosondes, satellites). These data are then used in the model as starting point for a forecast. There are slight uncertainties in the initial conditions. A reason for these uncertainties is that there are small errors in the observations. They are in general not relevant for short-range (0-3 days) forecasts, but increase the uncertainty of medium-range forecasts (3- 15 days). These data do not substitute national HHWSs, but complement the national warning systems with medium-range heat forecasts. (Source: <http://euroheat-project.org/dwd> EuroHEAT project agreement no. 2004322)

Monitoring:

Indicator-based surveillance-collection, (trend) analysis, and interpretation of data related to climate change. Routine data analysis from mandatory notification (eg, the 49 infectious diseases and conditions notifiable at European Union level); Pharmacy-based monitoring of prescription and non-prescription drug sales or health-related data preceding diagnosis; Sentinel surveillance (collection and analysis of high quality, accurate data at a geographical location - eg, tick-borne encephalitis, Lyme borreliosis, etc); Vector surveillance (monitor distribution of vectors - eg, *Aedes albopictus*); Real-time surveillance (instantaneous data collection with dynamic and sequential data analysis - eg, hospital admissions or dead-bird surveillance); Mortality from infectious diseases (monitor cause-specific deaths from infectious diseases based on medical records, autopsy reports, death certificates, etc); Syndromic surveillance (eg, monitor emergency room admissions for symptoms indicative of infectious diseases). (Source: Semenza JC, Menne M: Climate change and infectious diseases in Europe. *Lancet Infect Dis* 2009; 9: 365–75.)

Outbreak investigation and response: Diagnose and investigate health problems (eg, newly emerging tropical diseases); Respond effectively and rapidly to prevent dispersion of outbreak (eg, through water boil notices or insecticide spraying); Multisectorial response (eg, public, private,

commerce, faith-based, etc); Logistical support and adequate supplies (eg, provisions for unusual outbreaks including antivirals, medications, vaccines, etc). (Source: Semenza JC, Menne M: Climate change and infectious diseases in Europe. *Lancet Infect Dis* 2009; 9: 365–75.)

Potential tipping points: Geographical regions characterised by a critical threshold at which a tiny perturbation can qualitatively alter the state or development of a system. (Source: *Lancet* and University College London Institute for Global Health Commission: Managing the health effects of climate change *Lancet* 2009; 373: 1693–733)

Rodent-borne disease: A pathogenic microorganism (most frequently viruses or bacteria) is directly transmitted from healthy rodents to the human individual causing clinical illness. The rodents are usually infected by their mothers and their immunotolerant state prevents the development of clinical illness. Arenaviruses, the distribution of forests, differences in human land-use practices among regions also affect the distribution of the microorganisms concerned. Climate changes possess profound influence on the ecological niches of rodents. (György Berencsi)

Spatial model: The distribution of forests, differences in human land-use practices among regions also affect the distribution of vector-borne infections. As a consequence of stochastic variation, meaningful patterns in the distribution of infections can be only recognised when data are analyzed over broader temporal and spatial scales. The amount of forests within a 2500-meter radius of each town and village correlated significantly with TBE incidence rate in Hungary. (Source: Gábor R. Rácz, Enikő Bán, Emőke Ferenczi, György Berencsi. *Vector-Borne and Zoonotic Diseases*. Winter 2006, 6(4): 369-378)

Stressors: Influence of a given degree and/or complexity that has the ability to impair the welfare of individuals, communities or populations. (Hanns Mosshammer)

Tele-epidemiology A discipline studying the spread of human and animal epidemics which are closely associated with environmental factors, climate change in particular. It is combining satellite-originated data on vegetation (SPOT), meteorology (Meteosat), oceanography (Topex/Poseidon and Envisat) with hydrology data (number and distribution of lakes, water levels in rivers and reservoirs) with clinical data from humans and

animals (clinical cases and serum use), predictive mathematical models can be constructed. (Source: Marechal F, Ribeiro N, Lafaye M, Güell A: Satellite imaging and vector-borne diseases: the approach of the French National Space Agency (CNES). *Geospatial Health* 3(1), 2008, pp. 1-5)

Toxins of microbial origin: Substances of small molecular mass or of polypeptide, protein or glycoprotein nature toxic, paralytic or lethal for macroorganisms produced by bacteria, algae, fungi or protozoa will be also change their ecology upon climate changes. (György Berencsi)

Vector-borne disease: Disease in which the pathogenic microorganism is transmitted from an infected individual or animal to another individual by an arthropod or other agent, sometimes with other animals serving as intermediary hosts. The transmission depends upon the attributes and requirements of at least three different living organisms: the pathologic agent, either viruses, protozoa, bacteria, microscopic fungi or helminths (worm); the vector, which are commonly arthropods such as ticks or mosquitoes; and the human host. In addition, intermediary hosts such as domesticated and/or wild animals often serve as a reservoir for the pathogen until susceptible human populations are exposed.

Nearly half of the world's population is infected by vector-borne diseases, resulting in high morbidity and mortality. The distribution of the incidence of vector-borne diseases is grossly disproportionate, with the overwhelming impact in developing countries located in tropical and subtropical areas. Weather affects vector population dynamics and disease transmission, with temperature and humidity considered key variables. (Source: CIESIN Thematic Guides, www.ciesin.columbia.edu)

Vulnerability: National, regional and local populations at different risk exposed to the consequences of the climate changes. (Source: WHO Library „Protecting health from climate change: global research priorities“, 2009. ISBN 978 92 4 159818 7)

Warning system: Any system of biological or technical nature deployed by an individual or group to inform of a future danger. Its purpose is to enable the deployer of the warning system to prepare for the danger and act accordingly to mitigate against or avoid it. (Source: Wikipedia; comment: regarding “early”: as early as possible!)

Water borne infections: Complex interactions of interconnected components, including the atmosphere, hydrosphere, cryosphere, biosphere, and geosphere. Global climate change will interfere with these interactions and alter the hydrological cycle not only by altering mean meteorological measures but also by increasing the frequency of extreme events such as excessive precipitation, storm surges, floods, and droughts. Water-borne pathogens often act in concert through two major exposure pathways: drinking water and recreational water use. (Source: Semenza JC, Menne M: Climate change and infectious diseases in Europe. Lancet Infect Dis 2009; 9: 365–75.)

Weather forecasts: In general based on numerical weather prediction (NWP) models. The basic idea of NWP is to sample the state of the atmosphere at a given time (=initial conditions) and to use mathematical equations for the physics and dynamics of the atmosphere to estimate its state some time in the future. (Source: <http://euroheat-project.org/dwd> European Centre for Medium Range Weather Forecasts (ECMWF))

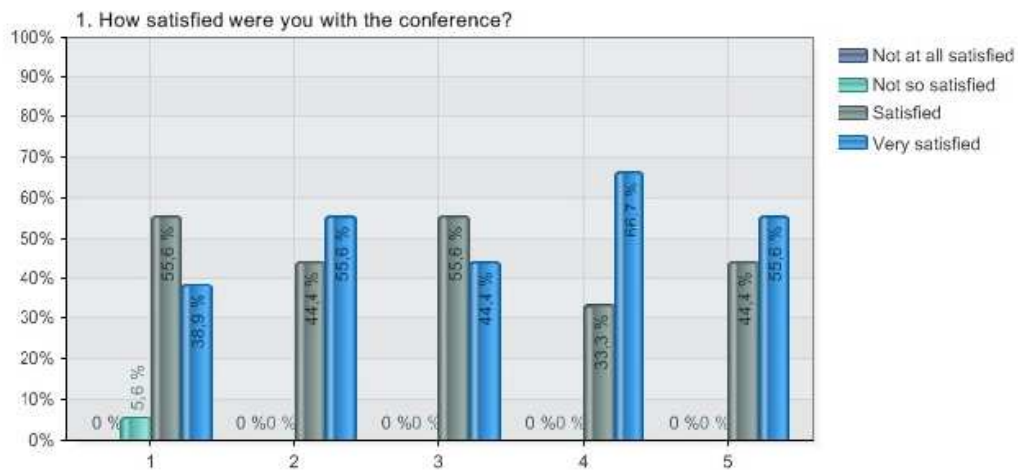
Annex 4 Evaluation report Östersund workshop

Climate change and health effects

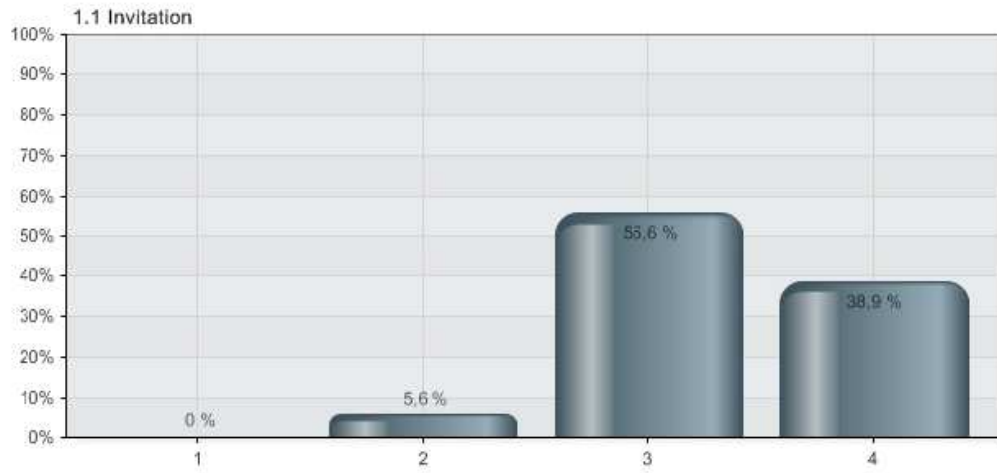
Published from 10.10.2011 to 21.10.2011

18 responses (18 unique)

1. How satisfied were you with the conference?

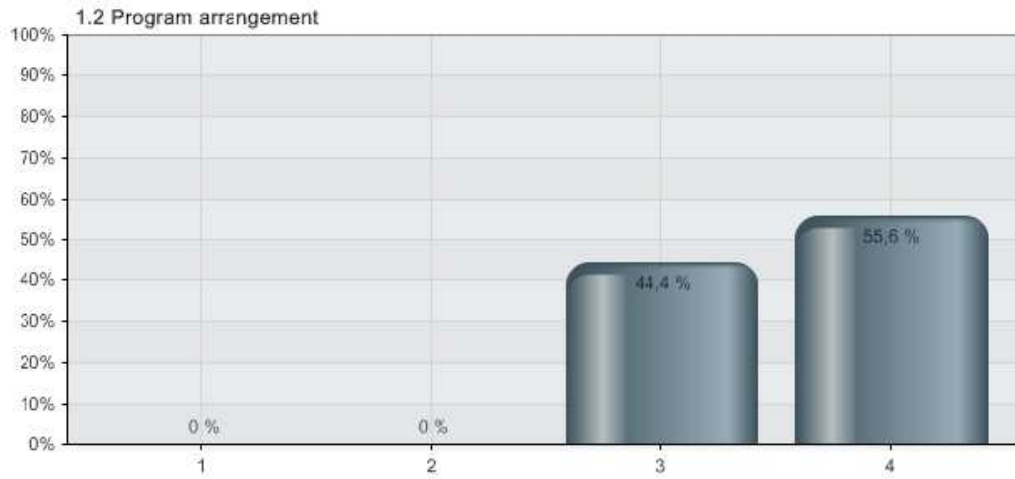


Alternatives	N
1 Invitation	18
2 Program arrangement	18
3 Contents	18
4 Lecturers	18
5 Overall impression	18

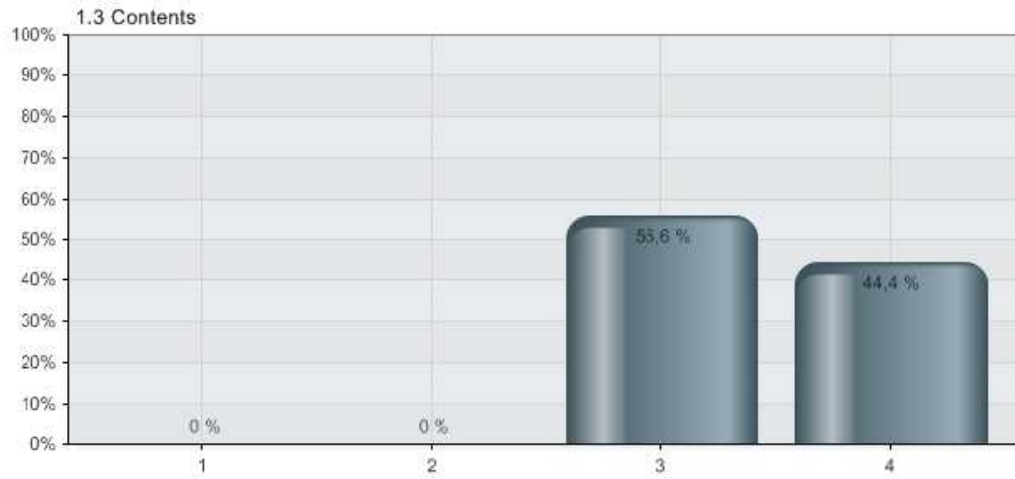
1.1 How satisfied were you with the conference? - Invitation

Alternatives	Percent	Value
1 Not at all satisfied	0,0 %	0
2 Not so satisfied	5,6 %	1
3 Satisfied	55,6 %	10
4 Very satisfied	38,9 %	7
Total		18

1.2 How satisfied were you with the conference? - Program arrangement

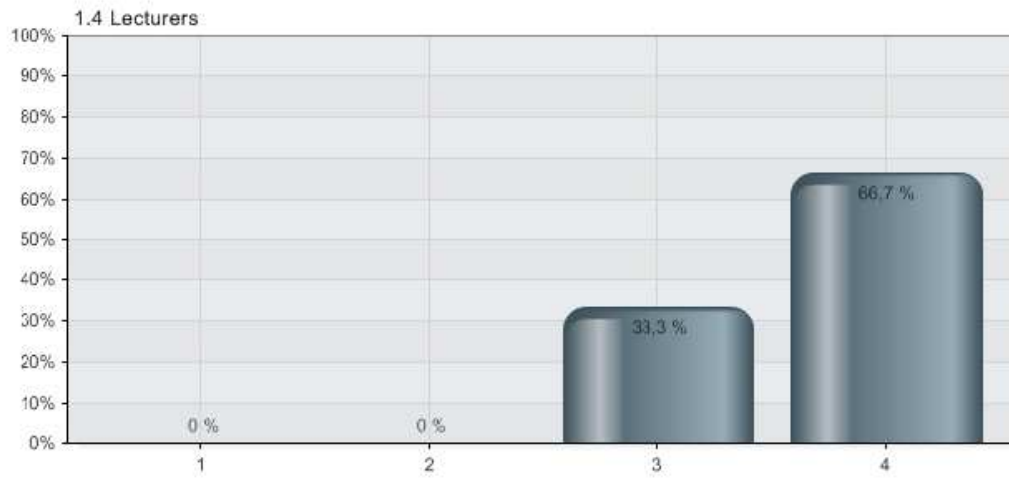


Alternatives	Percent	Value
1 Not at all satisfied	0.0 %	0
2 Not so satisfied	0.0 %	0
3 Satisfied	44.4 %	8
4 Very satisfied	55.6 %	10
Total		18

1.3 How satisfied were you with the conference? - Contents

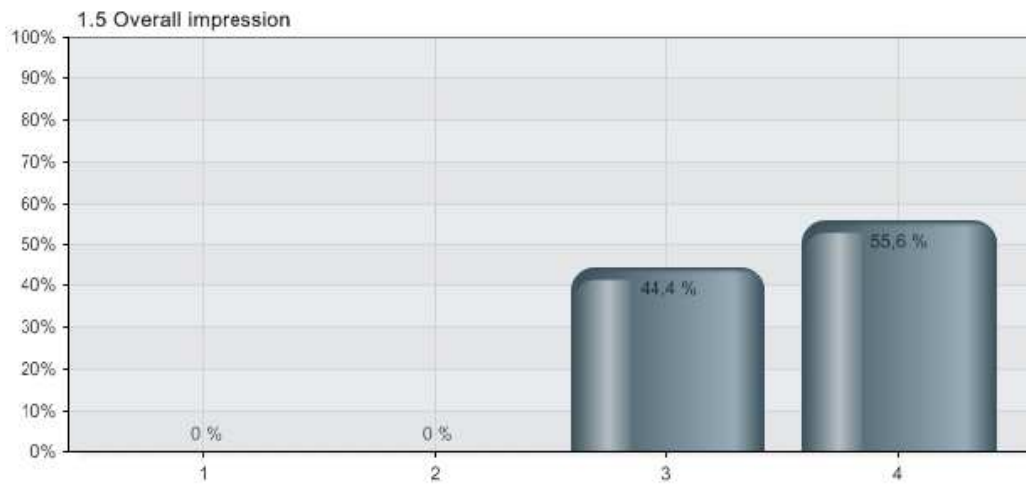
Alternatives	Percent	Value
1 Not at all satisfied	0,0 %	0
2 Not so satisfied	0,0 %	0
3 Satisfied	55,6 %	10
4 Very satisfied	44,4 %	8
Total		18

1.4 How satisfied were you with the conference? - Lecturers



Alternatives	Percent	Value
1 Not at all satisfied	0,0 %	0
2 Not so satisfied	0,0 %	0
3 Satisfied	33,3 %	6
4 Very satisfied	66,7 %	12
Total		18

1.5 How satisfied were you with the conference? - Overall impression



Alternatives	Percent	Value
1 Not at all satisfied	0,0 %	0
2 Not so satisfied	0,0 %	0
3 Satisfied	44,4 %	8
4 Very satisfied	55,6 %	10
Total		18

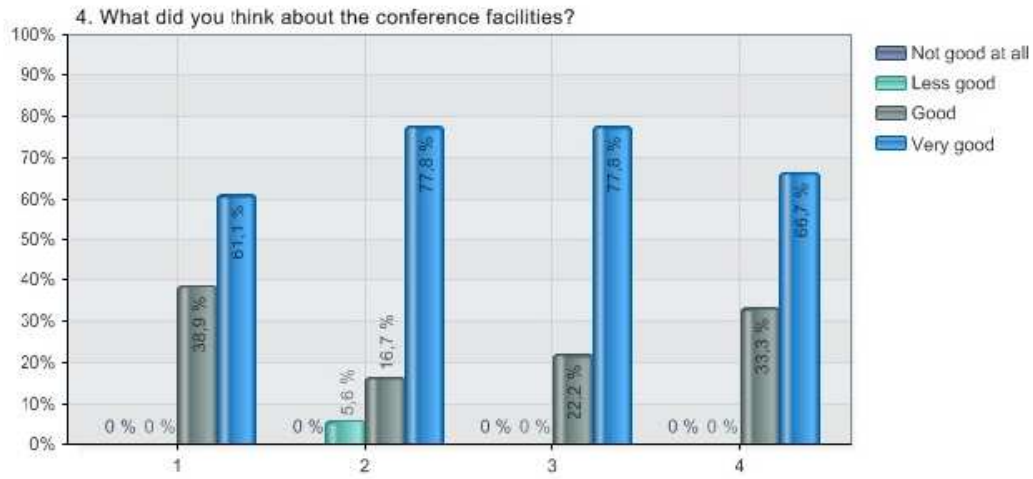
2. What were you particularly satisfied with?

The overall summary of the current status of knowledge
 Quality of presentations
 Interesting and diversified topics for discussion
 I liked the planning with lectures the first day and discussion the second day. It was very interesting to have the group discussions!
 The programme and the atmosphere in general
 Excellent update on the climate change activities
 lively discussion
 variety of topics
 Updating on the scientific basis
 Getting to know the persons working within the area in other countries in North Western Europe
 Discussion on which kinds of health personnel need training
 - visit of SNIPH on the first evening
 - broadness of topics covered in the presentations
 quantity of speakers
 The variation of speakers and subjects
 Listening to the experiences, particularly from Scandinavia. Worth to attend the meeting. As usual, important are the talks between the presentations, e.g. during the breaks and aside. Working in groups.

3. What were you less satisfied with?

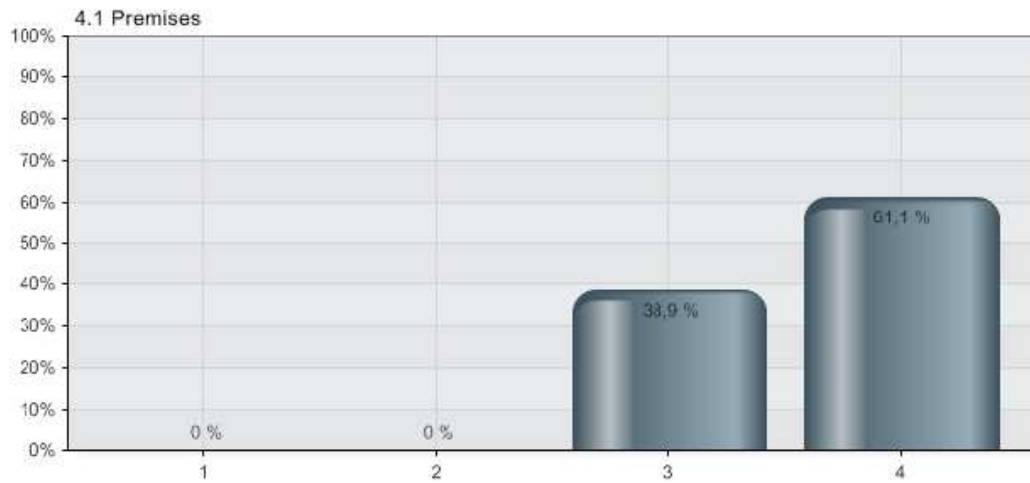
The invitation. I found it by chance
 Rather tight schedule and not so much time for discussions
 Not enough time for discussions the first day (I did not attend the second day).
 Maybe a little to long first day, but that was not at big problem.
 I expected a more European-wide participation.
 far way to go
 - too many presentations with too little time to discuss
 - group discussions were interesting and fruitfull, but too many stations (groups) with too little time - Less would have been more.
 Gender bias of speakers: 17 male= 2 women
 Not good, since there are a lot of qualified women in public health
 Reflections to the EU project CLIMATE-TRAP were vague. What comes next as conclusions out of this project.
 How and will there be any climate change adaptation measures implemented and followed-up?

4. What did you think about the conference facilities?

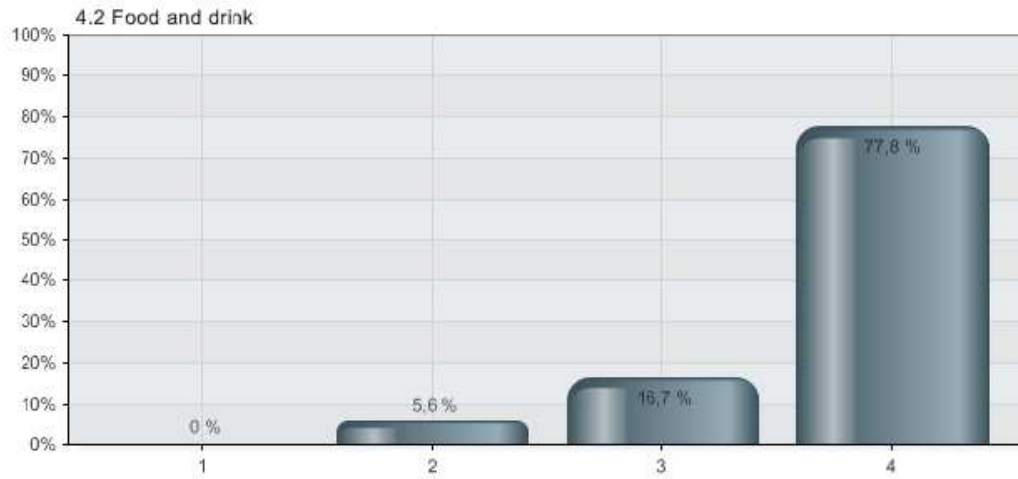


Alternatives	N
1 Premises	18
2 Food and drink	18
3 Service	18
4 Availability	18

4.1 What did you think about the conference facilities? - Premises

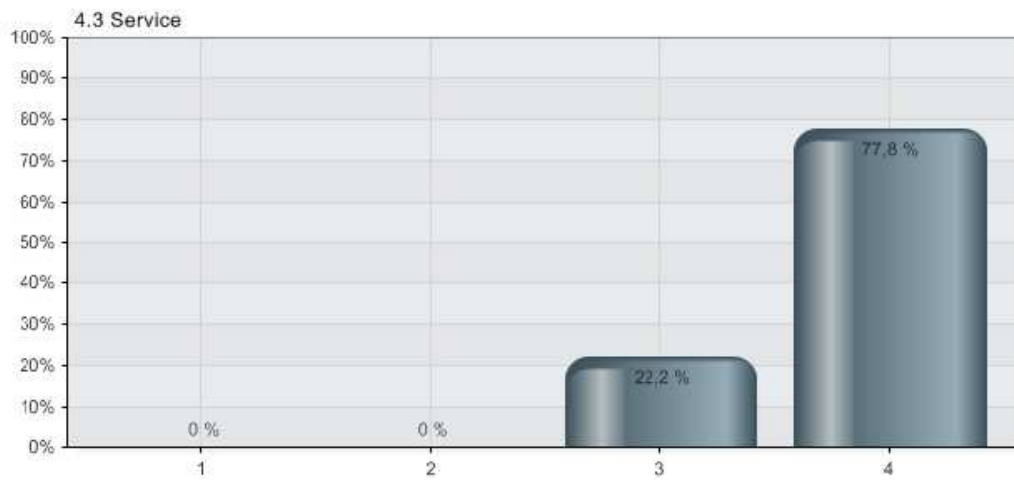


Alternatives	Percent	Value
1 Not good at all	0.0 %	0
2 Less good	0.0 %	0
3 Good	38.9 %	7
4 Very good	61.1 %	11
Total		18

4.2 What did you think about the conference facilities? - Food and drink

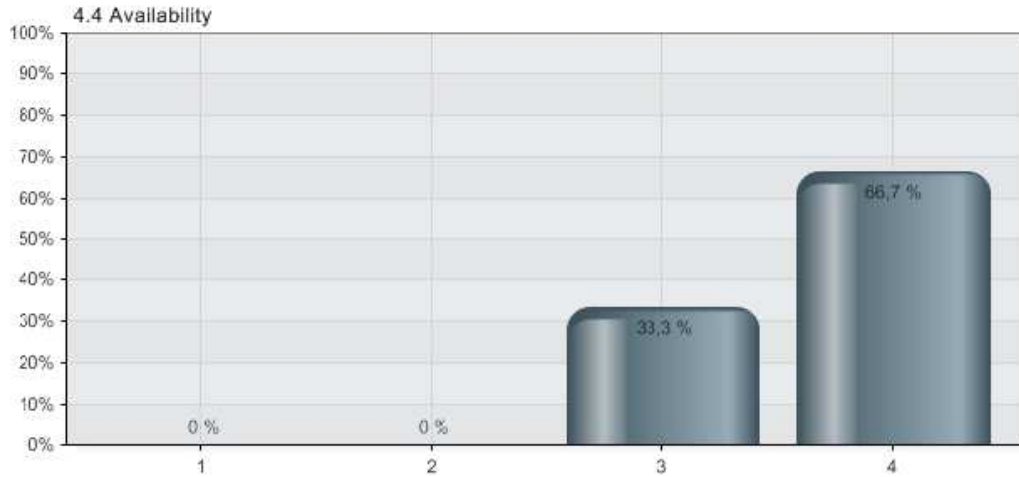
Alternatives	Percent	Value
1 Not good at all	0,0 %	0
2 Less good	5,6 %	1
3 Good	16,7 %	3
4 Very good	77,8 %	14
Total		18

4.3 What did you think about the conference facilities? - Service



Alternatives	Percent	Value
1 Not good at all	0,0 %	0
2 Less good	0,0 %	0
3 Good	22,2 %	4
4 Very good	77,8 %	14
Total		18

4.4 What did you think about the conference facilities? - Availability



Alternatives	Percent	Value
1 Not good at all	0,0 %	0
2 Less good	0,0 %	0
3 Good	33,3 %	6
4 Very good	66,7 %	12
Total		18

5. Do you have any other comments?

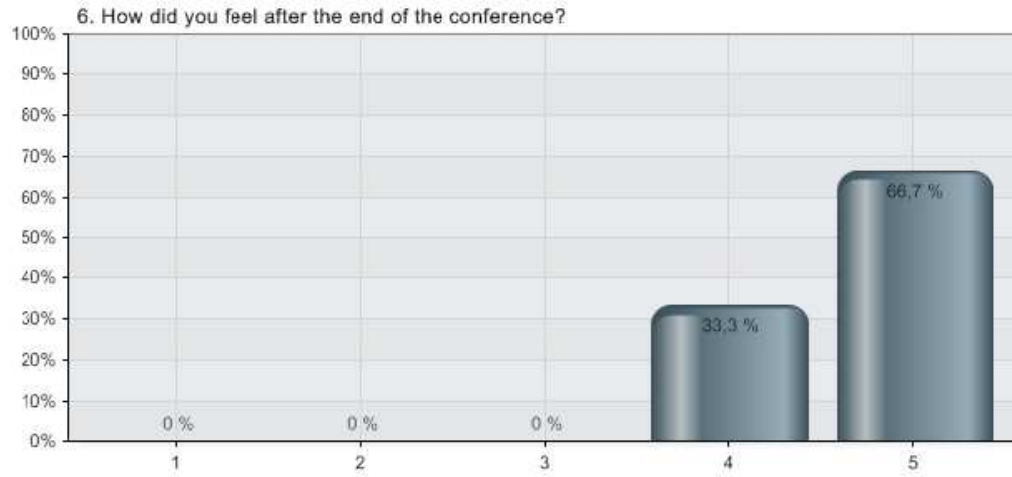
Good workshop

I hope the Climate TRAP report will mirror the Danish activities in the area well.

It will be useful to get proposals on training content for health personnel from Climate TRAP.:

I look forward seeing the conference report with the presentations.:

Good to have the meeting in the same hotel (excellent service, rooms, venue) where we stayed, saved time. Thanks to the kind hospitality of the city major of Østersund for the social dinner evening.

6. How did you feel after the end of the conference?

Alternatives	Percent	Value
1 Very Unsatisfied	0,0 %	0
2 Unsatisfied	0,0 %	0
3 Indifferent	0,0 %	0
4 Satisfied	33,3 %	6
5 Very Satisfied	66,7 %	12
Total		18