

WaMRi-Newsletter

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WHO Collaborating Centre for Health Promoting Water Management and Risk Communication Institute for Hygiene and Public Health University of Bonn



Editorial to the first WaMRi-Newsletter

Health for All, this is the ambitious proclamation of the World Health Organization (WHO). The HFA response to accelerated global change and to ensure that individuals, countries and organizations are prepared to meet the challenges of the 21st Century. In order to improve global health, the process includes extensive consultation with a wide range of partners for health, comprising governmental and non-governmental organisations, the private sector, the United Nations, etc. One essential task of the WHO is to promote and conduct research in the field of health. It was recognized that collaboration with national institutions and laboratories would be an optimal way to realize WHO policies and programmes. Over the decades, the WHO developed a global network of collaborating centres (CC), which is being updated continuously. In Germany, there are about 41 WHO-CCs which provide their expertise in various research fields.

In May 2001, the Institute for Hygiene and Public Health of the University of Bonn was designated WHO CC for Health Promoting Water Management and Risk Communication (WaMRi). The Institute has got a long tradition in water hygiene. Since 1905 it has been the Municipal and State Investigation Office for Water Hygiene.

In 1994 Professor Dr. Martin Exner became Director of the Institute. 60 people work at the institute 50% of which belong to the scientific staff. They work in the research fields of water microbiology, water chemistry, hygiene of technical systems, hospital hygiene, surveillance of nosocomial infections, Public Health and Medical Geography, environmental mycology, testing of disinfectants, etc.

With regard to the terms of reference the work of the WHO-CC focuses upon normative and regulative work including the revision of the Guidelines for Drinking Water Quality and the London Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes. The activities of the WHO-CC comprise the elaboration of holistic water management concepts including HACCP and GIS, Surveillance of water-related diseases, communication of health risks, technical guidance documentation (*Legionella* in drinking water installation systems, water supply in health care facilities, outbreak and incident management), group training and liaison with WHO regional and country offices, particularly the European Centre for Environment and Health (ECEH).

Our intention of the WaMRi-Newsletter is to give an overview about recent and future projects of the WHO CC, interesting internet links and references, upcoming global events in the field of water management and risk communication and research results. We will publish it several times a year and would be glad if we reached an interested community in the field of water research. Also we would appreciate any contributions and comments to the newsletter to fulfil our task to disseminate important aspects of health promoting water management and risk communication.

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Recent and future projects

Review on pathogens in surface water

Against the background of the revision of the "Guidelines for Drinking Water Quality" the WHO headquarters in Geneva assigned the WHO Collaborating Centre for Water Management and Risk Communication to write a review on the occurrence of pathogens in surface waters in dependence of the type of surface water.

The intention of this review is to collect all relevant and worldwide available data with regard to measured concentrations of pathogenic micro-organisms in surface water.

After defining the relevant waterborne pathogens for which the references should be collected, the search of references was carried out by using different sources of information, for example Pubmed. References could also be gained by asking members of the International Water Association and key people working in this field worldwide for publications, as well as for unpublished studies or additional information.

A matrix table was developed concerning the main results of the single reference that is of importance. The table includes the type of pathogens, the health outcome, measured values of the pathogen, indicator values, type of catchment area, etc. In order to use this table more effectively, we decided to create a database model which can be used more comfortably for filling in the study results, and which allows retrievals of those results.

The final version of the review should be finished by the end of May 2002.

In addition to the review paper, we would like to enable WHO to use our electronic database.

We are considering a restricted Internet-access via user identifier which would allow a direct access for authorized persons.

GIS-supported investigation of drinking water supply and water related diseases in Khorezm (Uzbekistan) in cooperation with the ZEF (Center for Development Research)

Within a project about sustainable water management in Uzbekistan, which is carried out by the ZEF, a cooperation with the Institute for Hygiene and Public Health was established with regard to hygienic problems of water supply structures in this region.

It is expected that a large proportion of the diarrhoeal diseases in the Khorezm region is waterborne. But a substantial reduction of the incidence of diarrhoeal diseases can only be achieved by enhanced access to safe drinking water, personal hygiene and adequate public sanitation. Accordingly the associations between these issues will be studied within the next three years using a geographical information system (GIS) and information gained through questionnaires.

Distance learning for water hygiene in the WHO Euro region

WHO has a long history of responding to the need for specialized training in aspects of public health, particularly in the area of epidemiology. Especially in the Caspian Region and the Newly Independent States of the Caucasus and Central Asia, training in public health is being needed.

The best way to reach several people all over the world in order to exchange knowledge and experience is via e-learning courses. In this context, the WHO CC for Health Promoting Water Management and Risk Communication has initiated a cooperation with the Curtin University in Perth/ Australia in the field of public health e-learning courses. The contact partner is the Centre for International Health which already has a teaching program via internet.

Review on Legionella spp. in water-installation systems

The Legionnaire`s disease is a significant health issue. Drinking water supplies may be a source of low numbers of *Legionella*, which can rapidly increase when delivered to warm water. The temperature may also have an effect on the virulence of the organism.

Although several countries include the Legionnaire`s disease in their surveillance programs, there is a large uncertainty with the data concerning the numbers reported and the comparability between different countries. At present the global burden of disease cannot reliably be estimated.

Two WHO programs, "Water, Sanitation and Health" and "Communicable Disease Surveillance and Response" are working together to produce consolidated guidelines.

The main objective is to produce an evidenced-based technical series document or other freestanding guidelines to risk assessment and risk management. The WHO CC for Health Promoting Water Management and Risk Communication will take part in this progress by reviewing the present state of knowledge on *Legionella spp.* in water-installation systems so that the outcomes can be summarized into the revised WHO Guidelines on Drinking Water Quality or the revised WHO Guide to Ship Sanitation.

Special Events

2001

WHO Symposium on Housing and Health in Europe 6-8 June 2001, Bonn, Germany

The WHO Symposium on Housing and Health in Europe was organized by the new WHO ECEH office in Bonn.

The symposium reviewed the current status of research and evidence on the interaction between housing and health in the WHO European Region. Beginning with the global perspective, the Symposium progressed to selected topics of the housing-health relationship, discussing current research approaches, their technical results and the implications for both residential health and urban planning. A housing and health study in panel block buildings functioned as a case study for reviewing the practical impact of housing on health. The overall implications of the results were discussed and compared with the housing and health situation in various countries. The review of national situations and research activities revealed many cases of scientific uncertainty, limited data and poor policies. The symposium reviewed possible approaches to identifying solutions to these problems, such as surveillance systems and long term housing stock studies, support to the setting of health-related policies, the application of economic principles and the development of methods and survey tools for local authorities to assess their own needs. Finally, the symposium agreed on a list of recommendations to countries, to WHO and to other bodies such as local authorities and non- governmental organizations, indicating a way forward for further research and enhanced international cooperation within the field of housing and health.

An abstract of the report is sited at: <http://www.euro.who.int/document/e74578.pdf>

Medical Geography on the 53rd German Geographer`s Conference 29 September- 06 October 2001

More than 2,000 delegates participated in the biannual German Geographers` Conference which took place in Leipzig, Saxonia. The motto of the conference was "City and Region-Dynamics of living worlds" and had, among others, three sessions in the field of Medical Geography.

The close interconnection of urban living conditions with human health was extensively discussed in the Leading Theme Session on "Environmental Pollution and Health Risks", in the Special Session on "Environmental Changes and Infectious Diseases" as well as in the session of the Working Group on Medical Geography.

The perception of Medical Geography in German Geography has undoubtedly increased during the last few years. In Leipzig, a further step could be taken into this direction.

The German Geographers` Conference 2003 will take place in Bern/ Switzerland.

**First European Conference on Geographic Information Sciences in Public Health
19-20 September 2001 Sheffield, UK**

This first European conference in the field of Geographic Information Sciences in Public Health was supported by the European Commission. Approximately 250 experts mainly from the United Kingdom and continental Europe, including several WHO and WHO CC representatives attended the conference. Germany was represented by six delegates from a geographical background, reflecting the fact that the GIS-Public Health interface is predominantly covered by the WG on Medical Geography within the German society of Geography.

Geographic Information Sciences in Public Health is a large scientific area with many facets. Following this, the keynote lectures dealt with "Mobile devices and GIS in health-new opportunities and threats" and "Geographic Information Science and Public Health Services". The sessions filling the two days program had the headings "Communicable Disease and Environmental Health", "Methods and applications in spatial analysis", "Planning and policy", "Geographic variations in health", and "GIS in the National Health Service", reflecting the great variety of topics and characterizing the wide range of geographical studies in Public Health.

During the two days, 70 scientific papers were presented in a very dense program of 22 sessions. Additionally, 34 papers were presented as posters. This conference turned out to be a benchmark on the way ahead.

**Small Working Group Meeting on the development of a reporting scheme for
water-related diseases
25-26 October 2001, Bonn, Germany**

At the First Meeting of the Working Group on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Budapest, Hungary, 14-15 May 2001), it was decided to create a small group of experts for the further exploration of the agenda item, "**Arrangements for preparing an evidence base under the Protocol**".

The WHO CC for Health Promoting Water Management and Risk Communication took the lead in organizing an expert consultation on the "Assessment of the Evidence Base and development of a Reporting Scheme for Water-related Diseases" on the 25th and 26th of October 2001 in Bonn.

12 experts from 8 different countries and institutions participated in the consultation.

The aims of the meeting were

- * to identify the requirements for effective surveillance and management of water-related diseases, applicable to all WHO European member countries and
- * to generate recommendations which would contribute to the identification of water-related diseases in both a reactive and a proactive manner.

It was recognized that the formulation of risk indicators with regard to the water supply structures should be included in surveillance systems for waterborne diseases.

The main findings and conclusions of the small working group meeting are summarized in the report: **Assessment of the Evidence Base and Development of a Reporting System for Water Related Diseases** sited at: <http://www.euro.who.int/document/e74602.pdf>

**Consultation on Prevention and Management of Terrorism against Water Services
WHO Regional Office for Europe
22-23 November 2001, Copenhagen, Denmark**

The purpose of the Consultation was to:

- * review the risk posed by different chemical and microbiological agents, taking into account ease of production, weaponization, storage, and delivery
- * develop a fault-tree analysis for a typical water supply enterprise with a view to identifying the weak spots in the supply, production and distribution units and to increase awareness across sectors
- * identify ways in which information available at international agencies such as WHO could be made easily, if not immediately, available to water service providers and first-line health care providers, especially those that play a role in national surveillance systems
- * explore the interrelationship between first-line medical practitioners and water professionals in preventing, or responding, to terrorism.

It is expected that the outcome of the Consultation will be rapidly made available as a WHO report, distributed through normal channels and electronic means.

**Waterborne Disease Surveillance-Goals and Strategies
29-30 November 2001, Budapest**

At the first meeting of the working group on Water and Health May, 14-15 2001 in Budapest, Hungary, it was agreed that the Hungarian Institute would convene a workshop to review the achievements and problems of surveillance systems in the countries of the region and to elaborate recommendations to accelerate the progress in this field.

On this meeting it was striking that most of the participants came from Eastern European countries. The outcomes were basically chemical and not microbiological.

**International Colloquium on Water and Health
31 May-01 June 2001, Metz, France**

Following a proposal by the Rhine-Meuse Water Survey, a Commission of the Rhine-Meuse Basin Committee, the Water Directorate and the water agencies have decided to hold this international colloquium, under the patronage of the Minister for Town and Country Planning and the Environment. The Rhine-Meuse Water Agency was responsible for the organization and administration of this event.

The theme of water and health cuts across many different disciplines. The sphere of politics, economy, the social services, education, health, the public authorities, civil society etc. was being gathered together. The information exchanged should make a positive contribution to the debate at all levels.

Future Events

2002

FAO/WHO Pan-European Conference on Food Safety and Quality – To Restore Consumer Confidence in Food Products 25–28 February 2002, Budapest, Hungary

At this Conference, convened by the Food and Agriculture Organization of the United Nations (FAO) and WHO, representatives of member states and organizations in the European Region will identify ways to strengthen the safety and quality of food.

http://www.euro.who.int/foodsafety/NewsEvents/20020123_2

Assessing the Vulnerability of Human Health to Climate Change and Possible Adaptation Measures 20–21 March 2002, Geneva, Switzerland

The meeting will review a methodology and tool kit, produced in early 2000, to assess the vulnerability of human health to climatic change and possible adaptation measures. Participants will be limited to invited experts.

http://www.euro.who.int/eprise/main/WHO/Progs/GCH/NewsEvents/20020108_3

NSF International Symposium on Bacteria in Drinking Water-Public Health Implications 22-24 April 2002, Geneva, Switzerland

The symposium will:

- * Assemble leading international experts in drinking water microbiology and public health and water treatment.
- * Share, through prepared presentations, posters and discussions, the most current scientific knowledge on the implications of microbial re-growth in piped drinking water, water contact surfaces, treatment devices, bottled water, watercoolers and vending machines.
- * Develop and disseminate a peer reviewed proceedings record containing all of the papers and posters presented.
- * Provide the technical basis for the deliberations of the subsequent WHO expert meeting on the utility of HPC measurements in assessing drinking water quality and safety.

Who should attend?

The symposium would be of particular benefit to practitioners, experts, manufacturers and associations engaged in such areas as: **public health, sanitary and clinical microbiology, water treatment and purification equipment, bottled water, public water supply, regulatory and policy officials, water contact product manufacturers, testing laboratories, water coolers, food science**

More Information can be obtained at: www.nsf.org/conference/hpc

**3rd IWA World Water Congress
7-12 April 2002, Melbourne, Australia**

One international and four Australian environmental associations will combine to stage conferences on water, waste, odour and the business of the environment: International Water Association (IWA), Australian Water Association (AWA), Waste Management Association of Australia (WMAA), Clean Air Society of Australia & New Zealand (CASANZ), Environment Business Australia (EBA).

After registering for either the water, waste, odour or business of the environment conference, delegates will be able to mix and match sessions from the other conferences to make up an individual program to suit their own particular interests and needs.

Who should attend?

People who are interested in the technical and business aspects of the environment and are working in:

industry, government, research, a university, an environmental consultancy, a business wishing to enhance its environmental performance.

<http://www.enviroaust.net>

11th Symposium on Health-Related Water Microbiology

The group is to hold its 11th Symposium at the same time as the IWA Biennial of 2002.

**2nd IFH Conference on Home Hygiene and the Prevention of
Infectious Disease in Developing Countries
15-16 April 2002, New Delhi, India**

The aim of this conference, which will be organized by the International Scientific Forum on Home Hygiene (IFH), in partnership with the London School of Hygiene and Tropical Medicine, Sulabh International, the Institute of Public Health Engineers, the Indian Public Health Association, and the Indian Association of Preventive and Social Medicine, is to explore the issue of infectious disease prevention through integrated programs of hygiene in the community and the domestic setting.

The conference will provide a unique opportunity to bring together public health scientists and practitioners from each of the component disciplines and facilitate integration and exchange of disease information.

<http://www.ifh-homehygiene.org>

**WHO-UN/ECE conference on sustainable water management
and health at the ECWATECH 2002
June 2002, Moscow**

The ECWATECH Forum, held in Moscow since 1994, proved to be highly beneficial for the water industry in Russia and the CIS countries. ECWATECH unites a Congress and a Trade Fair, creating a unique and well-balanced character of event.

The 1999 Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lake Parties is the main focus of this international Conference. One of the basic Protocol provisions requires the promotion of:

- * understanding of the public-health aspects of their work by those responsible for water management, water supply and sanitation; and
- * understanding of the basic principles of water management, water supply and sanitation by those responsible for public health.

by the Parties to the Protocol

Three major themes will be dealt with, covering essential parts of the Protocol:

- * Setting and achieving the Protocol`s targets
- * Response systems
- * Water availability and supply in critical situations - experience of the Russian Federation

The participants will draw up conclusions and recommendations addressed both to the Congress and to the Parties to the Protocol on Water and Health and the Convention.

http://www.euro.who.int/watsan/NewsEvents/20020114_2

References

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Links

Assessment of the Evidence Base and Development of a Reporting Scheme for Water-related Diseases Report on a meeting of a WHO working group	http://www.euro.who/document/e74602.pdf
CIC Center for International Cooperation	http://www.cic-bonn.org
German Environmental Information Network Umweltbundesamt Berlin	http://www.gein.de
Housing and Health in Europe Report on a WHO Symposium	http://www.euro.who.int/document/e74578.pdf
IWW Rheinisch-Westfälisches Institut für Wasserchemie und Wassertechnologie GmbH	http://www.iww-online.de
London Protocol on Water and Health	http://www.euro.who.int/document/wsn/WatProt/index.html
NSF-International (regional office in Belgium) WHO Collaborating Centre for Drinking-water Safety and Treatment	http://www.nsf.org
Robens Institute, University of Surrey, United Kingdom WHO Collaborating Centre for Protection of Drinking-water Quality and Human Health	http://www.eihms.surrey.ac.uk/robens/env/rcpeh.htm
SHARED Scientists for Health and Research for Development	http://www.shared.de
VKI Water Quality Institute, Denmark WHO Collaborating Centre for Water Quality Assessment and Control	http://www.dhi.dk/vkireferer.htm
WHO Europe World Health Organization / Europe	http://www.euro.who.int
WHO European Centre for Environment and Health Water and Sanitation program	http://www.euro.who.int/watsan

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