

# Bulgaria

## Report on EMF Activities

### 9<sup>th</sup> International Advisory Committee Meeting on EMF

June 2004

## 1. Research activities

### A. Ongoing projects

#### *Evaluation of the Effect of RF EMR on the Cardiovascular System, and on the Melatonin Secretion in Medical Personnel.*

**Funds:** Ministry of Education, Science and Technologies

This is an epidemiological and methodological investigation studying the risk of EMR exposure to medical personnel in physiotherapy, surgery, diagnostic centers, MRI.

At the present stage the activities concerning the project include:

⇒ Individual exposure assessment and dosimetry of EMF in physiotherapy;

⇒ Questionnaires;

⇒ Cardiovascular and hormones investigations; melatonin.

The project lasts to the end of 2004.

#### *Evaluation of the Effect of RFR on the Melatonin Secretion, the Level of Stress Hormones, and on the Cardiovascular System.*

**Funds:** Ministry of Health

This is an epidemiological study on staff of radio and TV broadcasting, satellite stations.

The project is over. A publication is in a preparation.

#### *National Action Plan in the Field of Environment and Health*

**Funds:** Ministry of Health

This is multiyear project that includes a part “*Non-ionizing radiation*”. It corresponds to international requirements and contracts signed by the European Union in the field of environmental health.

The activities in 2003 in field of NIR include three major topics as follows:

*Developing a legislation for human exposure to EMF for the general population*

*Developing a national database for sources of NIR: ELF, RF, microwaves and optical radiation; elaboration of the exposure assessment and control of NIR*

*Providing a national system for risk communication and risk management in the field of EMR exposure.*

#### *Joint Project for Studying the Changes of the Microcirculation in Brain Peripheral Blood Vessels on EMF Exposure*

Project funded by Japan with the participation of a member of the Bulgarian National Program Committee. It is in a phase of completion in July 2004.

### B. PH. D. theses:

*Mobile communication. Dosimetry, exposure and risk assessment*  
*Measurement and Exposure Assessment of EMF. Dosimetric Approaches. Quality Assurance.*

## **2. New policies and legislation regarding EMF exposure**

### ***Ordinance for Internet/Computer clubs for the general public.***

It covers all hygienic requirements for the VDUs as sources of electromagnetic radiation and other physical factors. MPR II is implemented for VDU emissions.

### ***Project for Ordinance for EMF exposure to the general population.***

It covers EMR from 0 to 300 GHz, and introduces different zones of exposure. The exposure limits are different for every zone, from those of ICNIRP Guidelines to more restrictive limits. Basic limits and reference levels are implemented, also precautionary principle. It is in a discussion now. This ordinance will lead to changes to the other legislation used for occupations and others.

## **3. Areas of public concern and national responses:**

**A. Colloquium: “Health Risk in Physiotherapy”,** 24 October, Sofia, organized by The National Bulgarian Program EMF Committee, with the kind support of WHO. Lecturers: L. Kheifetz, and members of BEMFC. The presented information for the staff in physiotherapy, also for discussion included the followings:

- International EMF Project. Risk assessment.
- Sources of NIR in physiotherapy. Health risk.
- Legislation concerning NIR and protection of the medical personnel in physiotherapy.
- Results of the study carried out of the Bulgarian EMF Committee in physiotherapy.
- Experimental results from EMF exposure on animals using physiotherapeutical sources of radiation.

Participants: more than 100 persons working in physiotherapy, TV and newspapers.

Findings and outcomes: Very poor information for the risk of NIR in physiotherapy; high level of disorders amongst the medical personnel; a need of a special legislation.

**Seminar: “Mobile Communication and Human Health – a Main Concern of WHO”,**

7 November, Sofia, organized by The National Bulgarian Program EMF Committee, with the kind support of WHO. Lecturers: E. Van Deventer, M. Israel. The presented information for the media, mobile operators, and for the general population included the followings:

- Risk communication of EMF exposure.
- Fact sheets No. 184 and No. 193, WHO.
- Problems of the risk communication concerning the mobile technology in Bulgaria.

Participants: more than 50 people (general population), representatives of 20 media, representatives of the three mobile operators.

Findings and outcomes: Fears between the population; very few and sometimes

uncertain information regarding the risks; a lack of communication between the operators and the public; suspicion towards the stakeholders; a need of broad communication program for the population.

#### **4. New public information activities.**

##### **A. Presentations in the field of EMR in the following Balkan scientific forums:**

First International Workshop of B.EN.A. (Balkan Environmental Association) on “Environmental Medicine and Public Health Protection”, Macedonia, Bitola, 19-21 December 2003 – 5 presentations.

International Symposium: Environmental Legislation and Education for a better Quality of Life in Balkan Area, Bucharest, Romania, 26-28 February 2004 – 2 presentations.

International Symposium on “Transboundary Pollution” (B.EN.A.), Florina, Greece, 13-15 May 2004 – 2 presentations.

##### ***B. New stage in communication between countries.***

We started very good discussion between the Balkan countries for creating new **Balkan EMF Association (B.EMF.A.)** for setting problems of standard harmonization, transboundary “EMF pollution”, collecting Balkan databases, application of the precautionary principle, and for future collaboration.

Additionally, we started a dialog for a new policy between Bulgaria and Russia for implementing new approaches in developing standards, closer to the EU requirements. In this field, we intend to organize a workshop for the Eastern countries in April/May 2005 in Bulgaria.