

Bulgarian National Program Committee (BNPC)
International EMF Project

REPORT

19th International Advisory Committee Meeting
WHO, Geneva, 4-5 June 2014

I. General research activities in Bulgaria related to EMF health

Ongoing project

National Environmental and Health Action Plan (NEHAP)

Funds: State budget (Ministry of Health)

Research team: National Centre of Public Health and Analyses (NCPHA)

The project is completed at this stage, and now a discussion for new plan for the period up to 2020 is going on.

The chapter ***“Non-ionizing radiation”*** included the following actions for 2013:

“Research at the regional level of the health risk assessment from exposure to EMF and implementation of a campaign to inform the general public – regions Pleven, Smolyan, Haskovo”.

The main activities within this action were connected to measurement and exposure assessment of EMFs emitted by base stations for mobile communication in areas of kindergartens and schools in the cited three regions; conducting a survey among young people (questionnaire – Eurobarometer); translation and preparation for publishing the WHO document: ***“Wireless Networks: A Guide for Local Authorities”***; organization and conducting of workshop ***“Legislation in European countries concerning EMF in populated areas. Health risk and risk communication to the general public”***.

Results of measurements show values below 1.23 V/m. It means that there is not any risk for the children in the studied kindergartens.

Results of the survey (pilot study – about 200 students investigated) show interesting results: young people that use mobile phones for lower than 30 min per day are more afraid about RF exposure than those using permanent the phones. Also a fact is that young people are not well informed about the lower exposure when using “hands free”, and they don’t have adequate information about the real risk of the use of wireless technologies. More than 89% of them think that it is very dangerous to live close to power lines.

The preliminary results give a direction for further communication.

“Research, analysis and evaluation of information concerning international approach and policies for the protection of general public when using tanning devices”

The activity was connected to investigation of policies, good practices and documents of international organizations and national legislation bodies of different countries concerning protection of the general public when using tanning devices.

The results of this activity are: preliminary information to be used for development of an Ordinance for general public protection on using tanning devices; recommendations to the

Ministry of Health for development of policies and requirements for control of tanning premises.

In our opinion further steps in this field should be development and implementation of legislation and a program for risk communication to the general public.

Project No. DFNI-b01/0017/27.11.2012: “Measurement, assessment, analyses and prediction of EMF from mobile equipment in populated areas”

Funds: The national research fund

Research team: New Bulgarian University, Sofia

The main objective of the study is to develop web based system for information about the EMF exposure to the general public; also to adapt models for simulation of different configurations of mobile equipment emission, with the aim to inform the people about EMF exposures.

The team finished the first stage of the study.

Project BG 07: Programme “Public Health Initiatives”, Reference: BG07-PAF – NFM& FM EEA: “Establishment of a system for regulation of the implementation and functioning of sites, sources of non-ionizing radiation (NIR), in compliance with the legislative requirements”

Funds: the Norwegian Financial Mechanism and the Financial Mechanism of the European Economic Area 2009-2014

Research team: National Centre of Public Health and Analyses (NCPHA)

Expected start: July 2014

Ph.D. Thesis in the field of NIR:

Lyubina Vesselinova, MD, PhD 2013; Military Medical Academy - Sofia: “The bioeffects of the electromagnetic fields on the personnel in the practice the physical and rehabilitation medicine: a potential for risk mitigation and leading”

Gabriela Atanasova, PhD 2013, Technical University – Sofia: “Development and investigation of a microwave exposure system for estimation the influence of electromagnetic field to biological objects”

Nikolay Atanasov, PhD 2013, Technical University – Sofia: “An investigation electromagnetic interaction human – antenna using mobile phones in closed space”

Mihaela Ivanova, Ph.D 2013, National Centre of Public Health and Analyses – Sofia: “Study, assessment and human protection from UV radiation in working environment and for the general public”

These 3 persons are active members of the BNPC formed by the Ministry of Health to perform activities of WHO International EMF Project.

Scientific publications: In the reported period members of BNPC – the team of Prof. M. Israel (M. Ivanova, V. Zaryabova, T. Shalamanova, P. Ivanova, H. Petkova, V. Topalova) from the NCPHA, also L. Vesselinova (Military Medical Academy), A. Stancheva (New Bulgarian University), L. Traikov (Medical University, Sofia), published their research studies in peer reviewed journals.

II. New Policies and Legislation regarding EMF exposure

1. Council Recommendation of the Limitation of Exposure to the General Population EC/1999/519 is still in a stage of implementation in Bulgaria (probably June 2013).

Changes in the Health Law have been developed in 2011, and they are still in the final stage of discussion, prepared for implementation by the Parliament.

The new concept about the exposure limits is that finally, the *“Precautionary sub zone for “sensitive” in relation to risk perception regions: for recreation and leisure, recreation parks, health recreation facilities, facilities for elderly people, rehabilitation and social re-adaptation establishments, children centers, schools, kindergartens, healthcare establishments, for exposure to base stations in the frequency range 850 to 2150 MHz”*, has been removed from the proposal. Thus, the proposed by the general population exposure limit of $1 \mu\text{W}/\text{cm}^2$ ($0.01 \text{ W}/\text{m}^2$) especially for frequencies of the GSM/UMTS wireless network would not be included into the Health Law.

Only for the *“Second zone (access area) that sets regions where temporary and/or periodical human stay is possible, as: agricultural lands, accessible roofs of residential buildings, residence areas, streets, electric transport”*, the limit of $10 \mu\text{W}/\text{cm}^2$ ($0.1 \text{ W}/\text{m}^2$) remains the same in the draft document.

We are waiting now for the implementation of these changes following by an Ordinance with details about the exposure limits, procedures for implementation of sources of EMF in residential areas, requirements for control and for information about the EMF exposures.

2. European Directive 2013/35/EC for protection of workers exposed to EMF.

The responsible ministries in national level are both the Minister of health (as the first responsibility), and the Minister of labour and social affairs (second). Unfortunately, there is no any movement concerning training of control bodies, occupational health services, employers, workers. Only several control inspections belonging to the Ministry of Health have equipment for measurement in different occupations.

At the same time, the national Bulgarian Accreditation Body doesn't give permission the control bodies to perform measurement and to assess the compliance with the ICNIRP Guidelines that are the basis for the exposure limits in the Directive. This is big problem for providing a compliance of the EMF exposure in the working environment at national level because at this moment in Bulgaria there are not other regulations concerning occupational exposure of EMF in the frequency range above 60 kHz. The reason of it is that the Bulgarian Standard Institute withdrawn the standards BNS 14525 (RF) and BNS 17137 (microwaves) in 2011.

The European Directive solves this problem by introducing exposure limits for the whole frequency range. That is the reason that we insist the application of ICNIRP Guidelines for assessing compliance before transposition of the Directive in the national legislation.

3. Directive 2006/25/EC of the European Parliament is in action from June 2010.

The Guide for practical application finalized in 2012 and proposed to the Ministry of Health and to the Ministry of Labour and Social Affairs is still waiting for implementation.

4. Pr EN 16489. Professional indoor sun exposure services - Part 1: Requirements for the provision of training, Part 2: Required qualification and competence of the indoor sun exposure consultant, Part 3: Requirements for the provision of services.

BNPC members participated at the enquiry stage of standards development with opinions at national level and participation in CEN TC412 Meeting in Paris.

Our main proposals for these standards are connected to the following: to include minimal requirements for education/knowledge of the indoor sun exposure consultants; to include cases when UV exposure should be discouraged; to advice on precautions to be taken before exposure; to include precautions for electrical and optical safety of indoor sun exposure consultant; to include additional knowledge and competences concerning photosensitizers, etc.

A part of our proposals for part 1 of the document and all proposed changes for part 2 and 3 were implemented in final draft of the documents.

III. Areas of public concern and national responses

The number of complaints in Bulgaria decreases slowly. Our explanation of this process shows different reasons: more adequate information for the people, more clear messages from the scientists, success in the field of the application of the risk communication programme. There are others and deeper problems as poorness, unemployment that also can explain the decrease of the interest. Only few permanent activists are very persistent in their requests to remove antennae in residential areas.

On the other hand, there are still citizens complaining or requesting the remove of antennae or canceling their building up near to schools, kindergartens, hospitals, residential areas.

IV. New public information activities:

1. Training courses in the field of EMF sources, health risk, legislation, measurements, risk communication, implementation of the precautionary principle have been conducted to control laboratories, regional inspections.

2. Members of the Bulgarian National Program Committee participated on different international meetings presenting results of their work in the field of EMF.

3. Website of the BNPC and Foundation "Faraday" with regional information for Bulgaria and links to the International EMF Project of WHO:

www.emfbg.com

4. "Hot" telephone numbers for the general population for every kind of questions in the field of EMF safety.

5. Annual meeting of the BNPC with representatives of mobile communication companies, health inspections, municipalities, Ministry of Health, NGOs, international participation from companies providing measuring equipment has been conducted.

6. Finally, but very important is *the organization of the 8th International EMF Workshop in Varna, 21-26 September 2014.*

There are more than 90 papers registered for presentation at the meeting. Most of the participants are members of IAC, WHO, International EMF Project, BEMS, ICOH, EUPHA, IEEE and others international organizations dealing with non-ionizing radiation protection of humans.

The main topics of the 8th EMF Workshop concern occupational exposure; biological and health effects of EMF and UV radiation; exposure and risk assessment; new European legislation; quality of science which is reflecting on the contradictions of the results; medical applications of EMF sources. UV radiation exposure will be in the focus of the meeting, as well: exposure and risk evaluation in different occupations, legislation and restrictions for sources of radiation, solariums. We also invite young scientists and student to attend the youth session that we plan to organize at the time of the 8th EMF Workshop.

We consider to propose recommendations for further topics that are "hot" in the field of NIR, and to help the international organizations to promote policies in the field of research, risk assessment and risk management.

The website of the meeting is:

www.emf2014.emfbg.com

Deadline for abstract submission: 1 June, 2014

Notification of acceptance: 11 July 2014

Deadline for full paper submission: 27 July 2014

Welcome to the 8th EMF Workshop in Bulgaria!

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