Public health protection in recreational water (swimming pools and spas) environments

Geneva, 26 May 2010

GENERAL DATA

Montenegro area: 13.812 km^2

Population: 620.145

Length of borders: 614 km

Climate: Mediterranean

- Average air temperature: in summer 27.4 C
- Maximum sea temperature: 27.1 C
- Average number of sunny days a year: 240
- Swimming season: 180 days

General

- On 3rd June 2006 Montenegro regained its independence and became one of the youngest European countries.
- One of the key strategic goals of Montenegro is integration into the European Union
- Montenegro was proclaimed as the first ecological state in the world (1992)
- Montenegro is touristic country with more then 240 sunny days during year
- During ten months in 2009, there were 1.178.650 tourists in Montenegro
- Montenegro has 1644 hotels and apartments out of which 300 have pools and / or spa centers, where supervision is conducted in less than 5% of above mentioned pools

Protocol on water and health (obligations)

- According to the Art 6 par. 2 sub (j) of the Protocol on water and health, Montenegro is obliged to set targets, and report progress, including on the quality of waters generally used for bathing and need to develop comprehensive national and/or local surveillance and early-warning systems (Art 8).
- Montenegro has not ratified yet the Helsinki convention and Protocol

Project on Public health protection in recreational water (swimming pools and spas) environments

- The overall goal of the project is to protect and improve the health of recreational water users in swimming pools and spas as one of the national priority goals.

- The project will have the following outputs:
  - Improved legal and regulatory framework, based on the WHO Guidelines for Safe Water Environment (Volume2), strengthened enforcement capacity, and provision for transitional problems.
  - Strengthened laboratory capacity (both hardware and human capacity) for the determination of the parameters prescribed by the Protocol guidance as well as by the Guidelines on setting of targets, evaluation of progress and reporting
  - Ensured quality assurance and control of swimming pools and spa waters
  - Increased awareness of pool owners and operators

Establishing legislation framework harmonized with relevant standards

- There is no regulation on monitoring and surveillance swimming pools and spa waters
- Montenegro has recognized the health importance and hazards that may cause many water related diseases, with special emphasis on vulnerable populations
- Currently, monitoring and surveillance of swimming pools and spa waters is conducted in line with the Rule book on hygienic safety of drinking water; not harmonized with the EU Drinking water directive 98/83

Strengthening technical capacity (equipment for sampling and laboratory equipment)

- Use of swimming pools, recreation and relaxation are bringing large gains for the welfare and health of the population. Hazards in using swimming pools are divided into three groups: physical, microbiological and chemical hazards.
- In order to implement an appropriate monitoring program and ensure adequate surveillance over the pool and spa water quality, it is necessary to strengthen:
  - the technical capacity of health institutions (adequate equipment for the sampling and laboratory measurment for chemical and microbiological hazards)

Human capacity development (training programs)

- interventions to develop competences, theoretical knowledge and skills of personnel for risk assessment and management, implementation of HACCP and accreditation of sampling and laboratories are needed
- various types of training (courses, seminars, workshops etc).
- to strengthen human resources in the entire chain of water quality control (technical staff who perform sampling, highly educated staff in laboratories, specialists of hygiene who perform a risk assessment).
- Currently, a very small percentage of pools is subjected to monitoring and surveillance program: weak experience.

Quality system management / Accreditation process for sampling procedure

- According to the Law of accreditation (Official Gazette no. 44/05) Government of Montenegro established Accreditation Body of Montenegro (Official Gazette no. 21/2007), that is responsible for laboratory accreditation.
- It is well understood that sampling and handling of the sample are key factors for ensuring the validity of a result. If sampling is not taken into account, then erroneous decisions may be made that can have large financial, health, and environmental consequences.
- Relevant standards ISO/IEC 17025.
- The laboratories for testing swimming pool and spa water need to establish sampling quality through developing:
  - methods for sampling
  - sampling standard (protocols and procedures)
  - competence of staff responsible for sampling
  - quality assurance systems and practical experience from different sampling situations and cases
  - way of reporting
- It is necessary to develop a Program for accreditation of the sampling procedure and implement it.

Awareness raising (information – education) campaign

- to upgrade the understanding of bathing waters managers of importance of pool and spa water quality from the public health point of view.
- an intense information – education program should be developed and implemented. In particular, special attention should be paid the obligation to conduct regular monitoring programs, as well as to cooperate with competent authorities.
- Raising awareness campaign should be also targeted to the general public as users of swimming pools to inform and educate them on health benefits of safe recreational waters as well as hazards stemming from unsafe pool and spa waters. Increased level of awareness will contribute to higher degree of public involvement in decisions related to bathing waters management.

Indicators

- The number of samples per year
- The number of samples per year that does not satisfy in terms of microbiological water quality through monitoring of relevant hazards such as total coliform bacteria, fecal coliform bacteria, fecal Streptococcus, Staphylococcus, Proteus, Pseudomonas aeruginosa and the number of aerobic bacteria at 37 º C.
- The number of samples per year that does not satisfy in terms of chemical water quality through monitoring of relevant hazards, such as residual chlorine, residue disinfectants, pH, nitrates, nitrites, ammonia, etc.
- The number of injuries per year that occur in swimming pools for sport and recreation and spa centers.

Budget proposal

1. Establishing legislation framework € 32 000
2. Strengthening of technical capacity€ 250 000
3. Capacity building € 50 000
4. Quality system management € 70 000
5. Awareness raising € 30 000
6. Project Coordination € 24 000

TOTAL: € 456 000

Implementation plan: 2 years

CONCLUSION

- Expected benefits of Project implementation:
  - Ensured recreational (pools and spa) water quality / up to the prescribed WHO standards
  - hazards would be minimized as a result of regular monitoring and surveillance
  - Risk assessment would bring about improvement water quality in terms of hygiene, safety and visualization
  - Reduce the rate of water related diseases
  - Positive impact on tourism development

THANK YOU