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VZPOSTAVITEV STRUKTURE SISTEMA ZA ANALIZO PODATKOV O KVALITETI VODE IN ZDRAVJU PREBIVALSTVA

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Povzetek

Namen naloge je bil proučiti možnosti povezovanja podatkov pridobljenih z monitoringom vodnih teles, ki se jih odvzema za oskrbo, z monitoringom pitne vode, ter možnosti odkrivanja potencialnih vplivov na zdravje ljudi, ki to vodo uživajo. Ideja je povezati podatkovne baze o vodovodnih sistemih, kakovosti vode in hidričnih obolenjih z možnostjo georeferenciranja podatkov. S pomočjo povezovanja podatkovnih baz in s prostorsko obravnavo bi lahko ocenili izpostavljenost zaradi pitja onesnažene vode in vplive na zdravje ljudi. Nevarnost zaradi mikrobiološkega onesnaženja predstavljajo patogeni virusi, bakterije in praživali, ki se v vodnih telesih in v pitni vodi lahko pojavijo kot posledica fekalne kontaminacije. Mikrobiološko onesnaženje pitne vode lahko vodi do zdravstvenih problemov, ki so akutne narave in se pogosto kažejo kot prebavne težave. Pogostost obolenja je odvisna od več dejavnikov, pri čemer je najpomembnejši stanje imunskega sistema. Da bi v prihodnje lahko dokazali povezavo med obolenji in vodooskrbnimi sistemi, v katerih voda ne ustreza mikrobiološkim kriterijem, se je potrebno osredotočiti na izboljšavo sistema za odkrivanje hidričnih obolenj. Podatki o hidričnih obolenjih najbrž ne odražajo dejanske pogostosti pojavljanja obolenj, odkrivanje, preiskave in poročanje pa zajamejo le majhen delež dejanskega števila primerov. Zato je že dalj časa prisotna želja po uskladitvi podatkovnih baz Ministrstva za okolje in prostor in Ministrstva za zdravje. Sistem povezave podatkov, predstavljen v nalogi, bi lahko nudil informacije o zdravju prebivalstva, podatke o kakovosti vode, ter omogočal geografsko povezovanje in sledenje poti onesnaženja v pitni vodi.

Ključne besede: vodooskrba, pitna voda, kakovost vode, monitoring, hidrične epidemije, podatkovne baze, okolje in zdravje

Abstract

The idea is to link the monitoring of the abstraction body, the monitoring of the drinking water supply, and to link the latter to the population served by the drinking water supply. The intention is to connect the data bases of water supply systems, water quality and waterborne diseases including geographical referencing, which was not done in the past. One of the underlying objectives of this inclusion of geographical referencing data is to facilitate both linkage with drinking water abstraction, and with health impacts. Microbial contaminants pathogenic viruses, bacteria, and protozoa can occur in water bodies and in drinking water due to fecal contamination of the abstraction body. Microbial contamination in drinking water leads to health related problems that are usually acute in nature with gastrointestinal symptoms. Severity of the attack depends on several factors with immune system health being the most important. It is worth focusing on improved surveillance of waterborne illness to demonstrate the link between the illness and supplies that don't comply with microbiological standards. Data probably do not reflect the actual incidence of outbreaks, and only a small fraction of the true number of outbreaks is detected, investigated and reported. That is why the connection of the databases of the Ministry of Environment and Spatial Planning and the Ministry of Health is necessary. In principle, the presented integration of information should serve the goal both of public information on the quality of water, geographically referenced, and traceability of contamination for drinking water.

Key words: drinking water, water supply, water quality, monitoring, waterborne disease, data bases, environment and health