

# **Rapid Assessment of Drinking-water Quality**

A Handbook for Implementation

October 2012



## WHO Library Cataloguing-in-Publication Data

Rapid assessment of drinking-water quality: a handbook for implementation.

1. Drinking water - standards. 2. Water supply – standards. 3. Water quality. 4. Environmental monitoring. 5. Handbooks. I. World Health Organization. II. UNICEF.

ISBN 978 92 4 150468 3

(NLM classification: WA 675)

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## **Acknowledgements**

The World Health Organization wishes to acknowledge the efforts of the following people who contributed to this handbook from their knowledge and experience: the authors of the document Guy Howard (at the time: Loughborough University, now: Department for International Development, DFID, United Kingdom), Margaret Ince (Loughborough, United Kingdom), Oliver Schmoll (Federal Environment Agency, UBA, Germany) and Mike Smith (Loughborough University, United Kingdom). The process of developing and guiding this handbook was managed by Federico Properzi (at the time: WHO, now: UN-Water), Sam Godfrey (UNICEF), Jamie Bartram (at the time: WHO, now University of North Carolina at Chapel Hill, USA), Clarissa Brocklehurst (UNICEF until June 2011), Rifat Hossain and Robert Bos (WHO). WHO also acknowledges contributions from Ines Enning (Federal Environment Agency, UBA, Germany) for editorial support and the numerous valuable comments from the reviewers of this handbook, Cecilia Alexandre, Manuel Alvarinho, Fred Arnold, Mien Ling Chong, David Cunliffe, Joan Rose and Luis Simas, and from experts attending a consultation on sampling methods and procedures held in Geneva in June 2012, including Juan Munoz and David Megill – the latter two reviewed this handbook and suggested a way forward with respect to a future revised version this handbook.

## Foreword

The period of the Millennium Development Goals (MDG) is nearing its end with the target year, 2015, on the horizon. In the next decade we are likely to look back on the first fifteen years of the third Millennium as a remarkable period in terms of progress towards promoting people's access to drinking-water and sanitation. Indeed, the 2012 progress report of the WHO/UNICEF Joint Monitoring Programme on Water Supply and Sanitation (JMP) announced that the drinking-water target had been met in 2010: between 1990 and 2010 the proportion of people without access to "improved" sources of drinking-water had been more than halved.

The success story of the efforts to achieve the MDG drinking-water target has its roots in design: simplicity, a singular focus and a correct estimation of what is feasible, without losing ambition. The contrast with the sanitation target is striking: it is expected that over 2 billion people will remain without access to basic sanitation by 2015 – from the monitoring perspective this reflects a lack of estimating feasibility of the sanitation target at the time when it was added to the MDG framework, as an afterthought, in 2002.

While the simplicity of the drinking-water target clearly is a strength, it represents a weakness at the same time. There is a disconnect between the target –by 2015, to halve the proportion of people without sustainable access to safe drinking-water– and the indicator to measure progress –access to and use of "improved" drinking-water sources. From the start of MDG monitoring, the JMP team in WHO and UNICEF has been keenly aware of the fact that "improved" water sources, as technologies with a high level of probability to deliver safe and clean drinking-water, do not provide a foolproof perfect guarantee of its safety. The use of a technology-related proxy-indicator was and to this day continues to be the only way to monitor progress towards the target at a global level through household surveys and censuses.

RADWQ, the Rapid Assessment of Drinking-water Quality was conceived to probe into the question to what extent the quality of drinking-water from "improved" sources deviates from the assumption that it is safe. Not surprisingly, the results in five countries showed a wide range of conditions, from full compliance with the guideline values in the WHO Drinking-water Quality Guidelines, to specific sources in a given country only meeting standards in 34% of the samples.

The significance of RADWQ does not lie only in producing snapshot results that confirm our well-founded suspicions. What RADWQ triggered in the countries where it was implemented was an enhanced interest and political will to improve national water quality testing through new or strengthened regulatory frameworks, through allocation of resources to regulatory surveillance and audits, and through the adoption of the WHO-recommended approach of water safety planning. Further efforts along the lines of RADWQ will take global water quality testing out of the strict sphere of monitoring, surveys and statistics into the broader field of capacity development. And as countries' capacity to monitor drinking-water quality is progressively realized, contributions to a global monitoring system will increase and a clearer picture will emerge of where investments are needed to further expand people's access to truly safe drinking-water.

This handbook describes methods and procedures applied in the RADWQs carried out by WHO and UNICEF in five pilot countries – they can be adopted by any authority or institution that wants to prepare a snapshot of the quality of "improved" sources of drinking-water, as a first step towards strengthening drinking-water quality regulation. In the expectation that more sophisticated targets and indicators will become available after 2015, JMP has started the development of a second version of the handbook that puts the quality testing in a better defined household-based sampling framework. In the post-2015 transition period it is expected that the basic categories of "improved" and "unimproved" sources will give way to more precise indicators, but until the basic categories are fully phased out, there will be value in carrying out RADWQs as originally intended to put water quality higher on national political agendas.

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October 2012

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