

Procedures to Investigate Waterborne Illness

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Third Edition

Prepared by the
Committee on the Control of Foodborne Illness
International Association for Food Protection



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The following individuals contributed to this edition:

Michael Brodsky, M.Sc.

Brodsky Consultants
Thornhill, ON, Canada

Nelson Fok, M.Sc., C.P.H.I. (c)

Department of Public Health
Concordia University of Edmonton
Edmonton, AB, Canada

Jack Guzewich*, M.P.H., R.S., F.D.A. C.F.S.A.N. (Retired)

Albany, NY, USA

Julie Ann Kase, Ph.D.

US Food and Drug Administration/CFSAN
College Park, MD, USA

Marilyn B. Lee*, Sc.M., C.P.H.I. (c)

School of Occupational and Public Health
Ryerson University
Toronto, ON, Canada

Carrie Lewis, M.Sc.

Milwaukee Water Works
Milwaukee, WI, USA

Cassandra D. LoFranco, M.Sc.

Ontario Scientific Advisors Inc.
Georgetown, ON, Canada

Sharon Nappier, Ph.D., M.S.P.H.

Office of Water, Office of Science and Technology
Health and Ecological Criteria Division
Human Health Risk Assessment Branch
US Environmental Protection Agency (4304T)
Washington, DC, USA

Per Nilsson*, B.S.

Profox Company
Kristdala, Sweden

Timothy Sly, Ph.D., C.P.H.I. (c)

School of Occupational and Public Health
Ryerson University
Toronto, ON, Canada

Ewen C.D. Todd*, Ph.D.**Committee Chair**

Ewen Todd Consulting
Okemos, MI, USA and
Large Animal Clinical Sciences
Michigan State University
Lansing, MI, USA

*Indicates those who are Committee Members

Foreword

Procedures to Investigate Waterborne Illness is designed to guide public health, environmental protection, engineering, and other personnel who investigate reports of illnesses alleged to be waterborne. Prompt action to control an outbreak at its start will help minimize illness. This manual is an update of the 1996 second edition of *Procedures to Investigate Waterborne Illness*. The text has been adjusted where appropriate to reflect more recent understanding of pathogens and their control. A section on the role of environmental water, for instance from irrigation and processing of produce, has been added and the “Collection and Analysis of Data” section has been significantly expanded. The manual is a companion document to the *Procedures to Investigate Foodborne Illness* which was revised and published in 2012. Both the foodborne and waterborne illness manuals are based on epidemiologic principles and investigative techniques that have been found effective to determine causal factors of disease outbreaks. They are designed to improve the quality of investigation of outbreaks and disease surveillance. The reader will note that there is much overlap between the two manuals as the gathering of information during an investigation is very similar as are many of the pathogens that are capable of causing either foodborne or waterborne illness. In fact at the start of the investigation it will often not be clear whether an outbreak is foodborne or waterborne. There are differences in that whereas most waterborne illnesses are contracted through ingestion similar to food, infections can also be generated through skin contact and aerosols.

The *Table of Contents* serves as an outline and a flow diagram shows the interrelationships of the activities and their typical sequence in an investigation. The topics in the manual are presented in the sequence usually followed during investigations, i.e., receiving complaints of an alleged outbreak, interviewing the ill (and sometimes the healthy), developing a case definition, collecting water samples and clinical samples, conducting investigations of the water source and its distribution, interpreting the data, and reporting the outbreak. They are organized so that an investigator can easily find the information needed at any phase of the investigation. The forms at the end offer a convenient and effective way to keep information organized and ready for analysis. And the tables are useful in providing more detailed

information during an investigation, although they are not exhaustive. The tables on the pathogens are organized by symptoms, which will often be known early in an investigation before the pathogen has been confirmed by the laboratory.

Although this manual is intended to aid the investigator when an outbreak happens, the information in part could also be used as a guideline in prevention of an outbreak. Having adequate oversight of a water system and having trained staff are key to preventing outbreaks.

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