HEALTH CARE EMERGENCY MANAGEMENT

PRINCIPLES AND PRACTICE

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Dedication

MICHAEL REILLY

I dedicate this text to my family and friends who have supported me throughout this project. I especially thank my parents, who have provided their unwavering advice and support throughout my life and career. I also dedicate this text to my professional mentors Dr. Linda Degutis and Dr. Robyn Gershon, who continue to give me invaluable guidance throughout my professional development. Finally, I dedicate this book to my coauthor David, who has provided me with the opportunity to pursue academic emergency and disaster medicine professionally, and who continues to encourage and support my development as a scientist and scholar in this evolving area of medicine and public health.

DAVID MARKENSON

This text is dedicated to my parents, who have always guided, supported, and encouraged me, and who, as physicians, have shown me through their work that providing care to others in a compassionate and knowledgeable way can be a rewarding endeavor. This text is also dedicated to my brothers, sister, and sisters-in-law, who are a constant source of advice, support, and energy; without their help and involvement in my life none of my efforts could have been accomplished. Most importantly this text is dedicated to my wife Heidi and my wonderful children, Emily, Rachel, and George, who not only support me but who were willing to give of their time with me to allow me to write this text.
Lastly, this text is dedicated to all healthcare providers, emergency managers, and those in their care. Healthcare providers and emergency managers work each day in an environment that is unpredictable, often dangerous, and constantly challenging. They have become champions in changing the system to become better prepared. They dedicate their lives to aid the sick and the injured and prepare for any disaster, terrorism event, or public health emergency, driven only by their care for others and their devotion to this profession we call healthcare emergency management. We salute all of you in your professionalism and dedication. Also, we dedicate this to our patients who, in allowing us the privilege to provide them care, teach us each day about humanity.
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Dr. Michael Reilly is currently the Assistant Director of the Center for Disaster Medicine at New York Medical College in Valhalla, New York. Additionally, he is an Assistant Professor of Public Health Practice and the Director of the Graduate Program in Emergency Preparedness at the School of Health Science and Practice.

Dr. Reilly has over a decade of multidisciplinary experience in emergency preparedness, public safety, intergovernmental relations, public health, and emergency management. He has been published in the world’s leading disaster medicine and public health preparedness journals, and received international awards and recognition for his work on trauma systems and health systems in the context of disaster and public health preparedness. Dr. Reilly is an internationally recognized expert in the areas of emergency medical services, and health system preparedness and response, with direct experience in responding.
to mass casualty events and public health emergencies. Dr. Reilly is frequently called upon to provide expert consultation, subject matter expertise, and to evaluate healthcare systems preparedness, emergency planning, and drills and exercises.

Dr. Reilly has designed numerous educational curricula and training programs for a variety of preparedness functional roles for public health, emergency management, and public safety audiences at the professional and graduate levels. He is a senior lecturer for multiple federal agencies including the Department of Justice, Department of Homeland Security, and the Occupational Safety and Health Administration. Additionally, he is an active member of several state and national committees on homeland security and emergency management programs.

He received his undergraduate education at Northeastern University in paramedic technology and health science. He earned his Masters of Public Health from Yale University, and a doctorate in public health from New York Medical College.

Dr. Reilly remains active as a paramedic in the Metro New York City region and maintains numerous specialty and technical certifications and instructor credentials in the areas of emergency medical services, worker safety, environmental health, hazardous materials emergency response, emergency management, counterterrorism, and weapons of mass destruction preparedness and response.

DAVID SAMUEL MARKENSON, MD, FAAP, FACEP, EMT-P

Dr. David Markenson is a board-certified pediatrician with Fellowship training in both pediatric emergency medicine and pediatric critical care. He is the Vice President and Medical Director of Disaster Medicine and Regional Emergency Services at the Westchester Medical Center and Maria Fareri Children’s Hospital. In addition, he is the Director of the Center for Disaster Medicine and the Interim Chair of Epidemiology and Community Health at the School of Health Sciences and Practice at New York Medical College. Dr. Markenson is also a Professor of Pediatrics and an Associate Professor of Public Health at the School of Health Sciences and Practice at New York Medical College in Valhalla, New York.

He is an active member of, and has served in leadership positions within, multiple professional societies, including the American Academy of Pediatrics (AAP), the American College of Emergency Physicians, the Society of Critical Care Medicine, the American College of Physician Executives, and the National Association of EMS Physicians. Dr. Markenson has been actively involved with the American Red Cross for over 20 years and currently serves as the National Chair of the Advisory Council which oversees disaster health, preparedness, and health and safety. In this role he directs the scientific and technical as-
pects of all programs and products in these areas including their development, implementation, and research. Prior to coming to Westchester Medical Center and New York Medical College he was the Deputy Director of the National Center for Disaster Preparedness at the Mailman School of Public Health, Columbia University, and was also the Director of the Program for Pediatric Preparedness of the National Center, a program dedicated to improving the care children receive in times of disasters or acts of terrorism.

His career has been dedicated to improving the approach to pediatric care, disaster medicine, EMS, and emergency medicine. He is the principal investigator on several federal grants related to pediatric disaster medicine, including Model Pediatric Component for State Disaster Plans and National Consensus Conference on the Needs of Children in Disasters. He has also addressed the needs of other special and vulnerable populations and directed a federal grant to develop the first and only national guidelines for emergency preparedness for persons with disabilities. In addition to this, he has conducted research on healthcare preparedness and healthcare provider and student education. In this area he was the principal investigator for a federal grant which developed the first competencies for all healthcare students in emergency preparedness and then piloted this set of competencies in a medical, dental, public health, and nursing school. Dr. Markenson has been recently appointed to the FEMA National Advisory Council as the In-Patient Medical Provider representative. The FEMA NAC is comprised of emergency management and law enforcement leaders from state, local, and tribal government and the private sector to advise the FEMA Administrator on all aspects of disaster preparedness and management to ensure close coordination with all partners across the country.

He is a frequent presenter and lecturer at medical conferences across the country, serves in editorial roles for multiple professional scientific journals, and has authored numerous articles and books on pediatric care, disaster medicine, and prehospital medicine. His work in disaster medicine started during his college career when he worked in disaster services in upstate New York providing direct services and education to other disaster services workers on behalf of the local Red Cross and county office of emergency management. Dr. Markenson is a graduate of Albert Einstein College of Medicine in the Bronx, New York.
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The material contained in this text reflects the contributions of many authors, editors, emergency managers, healthcare providers, reviewers, and others who provided assistance and valuable suggestions. While here we acknowledge them, our sincere appreciation for all of their efforts is truly hard to express in this limited space. In addition, we could not possibly acknowledge all those who participated in this important endeavor, and so we would like to also extend our sincere appreciation to every person who helped with this project, whether listed by name or not.

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the quality of the textbook you now have in your hands. Specifically, Michael Brown, Publisher, assisted by Catie Heverling and Kate Stein, has been our support at Jones & Bartlett Learning. As Publisher, Mike is committed to publishing quality books; his energy, intelligence, patience, and helpful efforts have enabled us to create an exceptional product. With the additional day-to-day support and guidance of both Catie Heverling and Kate Stein we were able to keep our project on track and ultimately produce this important text.

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We would like to also acknowledge the Westchester Medical Center and its Maria Fareri Children’s Hospital, which serves as the regional center for healthcare emergency preparedness. The source and real-world testing of many of the theories and models in this text come from the preparedness efforts of this institution, which is recognized as not only a regional but as a national leader in emergency preparedness. We would like to thank the leadership of this institution for allowing us to use the wonderful preparedness work they have done as models for others to follow. While not being able to list all, we would like to acknowledge the members of the senior leadership who day in and day out support the preparedness activities: Mr. Michael Israel, Mr. Gary Brudnicki, Dr. Renee Garrick, Dr. Michael Gewitz, Ms. Marsha Casey, and Mr. Anthony Costello. Lastly, we would especially like to thank the institution’s Director of Emergency Management and chapter contributor Mr. Garrett Doering for sharing his professional insight and experience with us as we completed this project.
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Our warmest and kindest regards,
Michael and David