Foreword

The emerging field of mHealth (mobile health) is the practice of medicine and public health with the use of mobile devices. The explosion versatility of mobile devices in recent years, such as smartphones, tablets, smart wrist watches and intelligent sensors gave the platform to rapid deployment of mHealth in healthcare systems across the world. mHealth has become now an important field within the eHealth domain.

The mHealth implementations can reach countries which are less developed due to the diminishing cost of mobile devices and the variety of health applications that may be installed with. Third world countries are already taking advantage of the benefits of mHealth applications and populations in rural areas may reach healthcare services which were not possible before with the traditional means.

Besides the clinical environment where mobile and monitoring devices and sensors are utilized, the community medicine and public health may find that mHealth applications are quite appropriate to minimize cost and improve quality of care for the patient and in prevention for the citizens.

This book is an excellent compilation of chapters providing an insight to the mHealth principles, applications and assessment. In the beginning, definitions and principles of mHealth are explained. Later, a review chapter brings to light the latest research directions and trends that are taking place in Europe and the world. The mHealth market is analyzed along with the focusing on the main apps and their classification. Moreover, the authors discuss the trends of the research topics addressed and what are the plans and future activities pushed. Collaborative platform of mHealth is presented to increase the quality of life in a disease specific environment. Personalized prevention and lifestyle management is facilitated by mHealth monitoring approaches. It is also well documented that by providing support to healthcare professionals by means of integrated environments that mHealth applications may easily provide, can really increase the quality of healthcare services.

A number of chapters focus on important mHealth applications in the clinical domain from sleeping disorders to treating bipolar patients in the psychiatric specialty. Paediatric applications also exemplify the importance of mHealth, whereas laboratory medicine receives a special attention since through its evolvement has now reached the point where it can become mobile and reach the patient at the point of care. Epidemiological models in public health are reviewed for the mHealth field. The mHealth environment is a special area where the security of individual’s data should be treated with the utmost secrecy. Special attention is given to security in as specific chapter. Finally, the mHealth facilitates the patient-centred approach which is required in the healthcare services. The chapter envisions tailored M-Health communication in the context of patient-centered care, as it remains to be seen whether the revolution in M-Health will provide the tools to engineer sufficient impact on patient-centered care and tailored communication. Furthermore, the final chapter envisions the concepts of self-management and self-care
on a continuum with one pole representing mobile health and the other self-efficacy. It concludes that self-management support is the nexus of mobile health and self-efficacy.

As it is stated by WHO, the mHealth field operates on the premise that technology integration within the health sector has the great potential to promote a better health communication to achieve healthy lifestyles, improve decision-making by health professionals (and patients) and enhance healthcare quality by improving access to medical and health information and facilitating instantaneous communication in places where this was not previously possible. It follows that the increased use of technology can help reduce health care costs by improving efficiencies in the health care system and promoting prevention through the communication of behavior change communication. The mHealth field has proved a powerful potential to advance clinical care and public health services by facilitating health professional practice and communication through the use of mobile technology. This book is a good step in achieving the objective of disseminating the benefits and challenges of the mHealth applications.

*John Mantas*
*University of Athens, Greece*

*John Mantas* is Professor of Health Informatics and Director of the Laboratory of Health Informatics at the University of Athens, Greece. His current research interests are in health information systems, patient safety, biomedical informatics, and management of healthcare. He is the organiser for more than ten years of the International Conference on Informatics, Management, and Technology in Healthcare. Professor Mantas is author of more than 250 scientific publications. He has supervised more than 200 Master’s theses and 30 doctoral dissertations. He currently lectures on Introduction to Informatics, Health Informatics, Hospital Information Systems, Biomedical Informatics and Technology, and Special Issues in Biomedical Informatics Research. He is the author and the main editor of ten international published books in English. He is serving in many international scientific journals as associate editor and reviewer. For many years served as advisor and expert in European Commission panels of experts. He led many European initiatives in the educational field of Health Informatics. From 1990, he is the Coordinator and Director of the Inter-University Master’s programme in Health Informatics. He was the President of the Faculty of Nursing and Head of Department of Public Health at University of Athens, and Vice-President of the Board of Trustees and Dean of the School of Health Sciences of the Cyprus University of Technology. He was the President of the European Federation for Medical Informatics from 2010 to 2012, and Vice-President of IMIA from 2012 to 2014.