Public Health in the Arab World
Public Health in the Arab World

Edited by

Samer Jabbour
Senior Lecturer, Faculty of Health Sciences, American University of Beirut, Lebanon

Rita Giacaman
Professor of Public Health, Institute of Community and Public Health, Birzeit University, West Bank, Occupied Palestinian Territory

Marwan Khawaja
Chief, Social Statistics Section, UN Economic and Social Commission for Western Asia (UN ESCWA), Beirut, Lebanon

Iman Nuwayhid
Professor and Dean, Faculty of Health Sciences, American University of Beirut, Lebanon

Associate Editor

Rouham Yamout
Research Associate, Faculty of Health Sciences, American University of Beirut, Lebanon
For Huda Zurayk
Who has brought us together
The Editors
# Table of Contents

Foreword x
Acknowledgments xii
List of contributors xiv

**Introduction** 1
Samer Jabbour, Rita Giacaman, Marwan Khawaja, Iman Nuwayhid, and Rouham Yamout

**Section 1. The Context of Public Health**

1 Public Health, the Medical Profession, and State Building: A Historical Perspective 7
   Elisabeth Longuenesse, Sylvia Chiffoleau, Nabil M. Kronfol, and Omar Dewachi

2 The Political, Economic, and Social Context 21
   Samer Jabbour, Rouham Yamout, Jamil Hilal, and Adib Nehmeh

3 The Demographic Transitions: Characteristics and Public Health Implications 35
   Dominique Tabutin and Bruno Schoumaker

4 Environmental Degradation: The Challenge of Sustaining Life 47
   Mey Jurdi, Rim Fayad, and Abbas El-Zein

**Section 2. The Social Determinants of Health**

5 Health Inequities: Social Determinants and Policy Implications 61
   Zeinab Khadr, Hoda Rashad, Susan Watts, and Mohamed E. Salem

6 Assets and Health: Toward a New Framework 75
   Marwan Khawaja, Mona Mowafi, and Natalia Linos

7 Gender Disparities in Health 89
   Kathryn M. Yount

8 Knowledge Gaps: The Agenda for Research and Action 106
   Hoda Rashad and Zeinab Khadr

**Section 3. Health and Disease: A Focus on Avoidable Conditions**

9 Introduction: Health and Disease in the Regional Context 117
   Cynthia Myntti and Rita Giacaman

10 Nutrition and Food Security: The Arab World in Transition 123
   Abdulrahman O. Musaiger, Hala Ghattas, Abdelmonem S. Hassan, and Omar Obeid

11 Infectious Diseases: The Unfinished Agenda and Future Needs 136
   Rana A. Hajjeh, Maha Talaat, and Aisha O. Jumaan

12 Non-communicable Diseases – I: Burden and Approaches to Prevention 149
   Ala Alwan, Nisreen Alwan, and Samer Jabbour

13 Non-communicable Diseases – II: Focus on Cardiovascular Diseases 164
   Habiba Ben Romdhane, Abdullatif Hussein, and Samer Jabbour

14 An Overview of Mental Disorders 178
   Elie G. Karam, Marianna M. Salamoun, Doris Jaalouk, Olivia Shabb, and Driss Moussaoui

15 Recognizing Omitted Contexts and Implicit Paradigms: Toward a Valid Mental Health Discourse 191
   Ghena A. Ismail

vii
# Table of Contents

## Section 4. The Health of Population Groups

16 **Injury Epidemiology and Prevention** 200  
   Peter Barss

17 **Child Health: Caring for the Future** 219  
   Sherine Shawky, Rouham Yamout, Samia Halileh, and Mohamed E. Salem

18 **The Health of Young People: Challenges and Opportunities** 236  
   Rima Afifi, Jocelyn DeJong, Krishna Bose, Tanya Salem, Amir A. Awad, and Manal Benkirane

19 **Women’s Health: Progress and Unaddressed Issues** 249  
   Jocelyn DeJong, Hyam Bashour, and Afamia Kaddour

20 **The Older Persons: From Veneration to Vulnerability?** 264  
   Abla Mehio Sibai, Rania A. Tohme, Rouham Yamout, Kathryn M. Yount, and Nabil M. Kronfol

21 **The Well-Being of Migrant Women: Between Agency and Restraint** 276  
   Sawsan Abdulrahim and Ynesse Abdul Malak

22 **Workers’ Health: A Social Framework Beyond Workplace Hazards** 286  
   Rima R. Habib, Fadi A. Fathallah, and Iman Nuwayhid

## Section 5. Public Health in War and Violent Conflict

23 **Conflict and Health: Meeting Challenges to Insecurity** 301  
   Hani Mowafi and Rayana Bou-Haka

24 **Health Status and Health Services in the Occupied Palestinian Territory** 312  
   Rita Giacaman, Rana Khatib, Luay Shabaneh, Asad Ramlawi, Belgacem Sabri, Guido Sabatini, Marwan Khawaja, and Tony Laurance

25 **Public Health in Crisis: Iraq** 331  
   Salman Rawaf and David Rawaf

26 **Summer 2006 War on Lebanon: A Lesson in Community Resilience** 345  
   Iman Nuwayhid, Huda Zurayk, Rouham Yamout, and Chadi S. Cortas

## Section 6. Health Systems: Toward Equity and Accountability

27 **Introduction: Seeing the Trees, Not Missing the Forest** 357  
   Samer Jabbour and Salman Rawaf

28 **Health System Governance** 362  
   Sameen Siddiqi and Samer Jabbour

29 **Health System Financing: The Bottleneck of the Right to Health** 374  
   Belgacem Sabri, Driss Zine-Eddine El-Idrissi, and Awad Mataria

30 **The Public Health Workforce and Human Resources for Health** 385  
   Fadi El-Jardali, Elisabeth Longuenesse, Diana Jamal, and Nabil M. Kronfol

31 **Health Care Delivery: The Missing Links** 400  
   Nabil M. Kronfol and Samer Jabbour

32 **Access to Essential Medicines: Impediments and the Way Forward** 415  
   Rana Khatib, Zafar Mirza, and Awad Mataria

## Section 7. Public Health and the Social Agenda

33 **Graduate Education in Public Health: Toward a Multidisciplinary Model** 429  
   Huda Zurayk, Rita Giacaman, and Ahmed Mandil

34 **Participatory Community Interventions: A Case Study Approach** 445  
   Rima Afifi, Iman Nuwayhid, Mayssa T. Nehlawi, and Mohammad Assai

35 **Reflections on the De-politicization of Health and Scholarship** 457  
   Livia Wick
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>Toward a Regional Perspective on Health and Human Security</td>
<td>467</td>
<td>Omar Dewachi, Samer Jabbour, Nasser Yassin, Iman Nuwayhid, and Rita Giacaman</td>
</tr>
<tr>
<td>37</td>
<td>Egypt in Crisis: Politics, Health Care Reform, and Social Mobilization for Health Rights</td>
<td>477</td>
<td>Alaa Shukrallah and Mohamed Hassan Khalil</td>
</tr>
<tr>
<td>38</td>
<td>Can Action on Health Achieve Political and Social Reform?</td>
<td>489</td>
<td>Samer Jabbour, Abbas El-Zein, Iman Nuwayhid, and Rita Giacaman</td>
</tr>
</tbody>
</table>

Some chapters refer to a Web Appendix. This can be found at: www.cambridge.org/9780521516747
As a wave of uprisings spread from Tunisia to Egypt to Bahrain to Yemen to Libya and to Saudi Arabia in early 2011, France’s Special Representative to the United Nations, Gerard Araud, wrote that, after all, “there is an international community. The world is changing and I think it is changing for the better.” To those of us living outside of the Arab world, the signs were strong that some kind of permanent political change was indeed taking place. The demand for democracy and liberty seemed to be ushering in a new era of solidarity among a truly global civil society. Was this assessment reliable? Or should one perhaps be cautious about interpretations of even the most promising of events, especially when those interpretations come from former colonial powers.

For what is taking place in the local contexts of Arab countries – in towns and villages, among rural and urban communities, and within families and networks of friends – is surely more complex. Revolution should be put in its proper place. The reality of lives lived under the political regimes of the Arab world should give us reason to pause before we judge what we see on our television screens or read in our newspapers.

At the same time as the 2011 Arab uprisings were taking place, I sat in a classroom at the Institute of Community and Public Health at Birzeit University in the occupied Palestinian territory. Twenty-five students at the Institute were describing what they saw as obstacles to achieving health in their land. The students had diverse backgrounds: pharmacists, junior officials from the Ministry of Health (and Education), a physiotherapist, laboratory technicians, nurses, a UNRWA worker, a dentist, and a statistician. Each was allowed to identify only one obstacle. We looked for connections among their concerns, put together broad themes, and finally voted on what mattered most to this group of students at a specific place and time – Birzeit, March 3, 2011.

In order of votes, here is what these students identified as urgent priorities. The first, by a considerable margin, was a set of predicaments facing young people. We might call this group of technical concerns “adolescent health”. But what these students had to say went much further than the term “adolescent health” can ever imply. They wanted to join health among young people to issues of agency and opportunity in their society. Young women and men were crucial assets to Palestinian society, they said, assets that were being neglected, even wasted.

Next came a group of issues that were judged equally important to one another: the conditions for Palestinians living in the vicinity of Israeli settlements, the ongoing violence against Palestinians in East Jerusalem, and maternal health. Finally, a smaller number of votes were cast for an array of highly diverse matters: medical errors, shortages of medicines, weak regulation of health professionals, lack of universal health care, the inequity of health conditions between those living in Gaza and those in the West Bank and East Jerusalem, the impact of price inflation on health, child health, violence against children in schools, and the effects of migration on urban health.

Amid this much more detailed report card on the health predicaments facing Palestinians, revolution, and the lessons that needed to be learned from revolution, entered, but didn’t dominate, our discussion. We were, from time to time, drawn back to what one student called the “Arab context”. What did those words mean? At their most elemental level, they meant “realising the right to achieve our needs”. But those needs were far thicker than were being described by the now supposedly legitimised “international community”. The uprisings had cast fresh light on often despotic or dynastic political regimes. This particular reading of the “Arab context” was one that suited many Western observers. It allowed them to put much of the blame for the problems faced by Arab peoples on Arab societies themselves. It cleansed the West of responsibility. But a deeper analysis of the “Arab context”, as shown in microcosm by the
students at Birzeit, revealed a far more disquieting assessment. The fabric of Arab health today is woven from coarse historical and political threads, threads drawn from old European colonial powers, remnants of the Cold War, and newer hegemonic, notably American, interests.

In the broad movement that is public health today, the reach of concern for human wellbeing has grown in unprecedented ways. The geographically widened moral commitment made by scientists engaged in health research has been one of the most striking shifts in science since the Enlightenment. The problems of poverty and human development are now central concerns for all scientific communities. But even with this new sense of global identity in science, some parts of the world still seem to exist on the margins of our concern. Africa, Asia, and Latin America receive appropriately large attention. But what is strange is the relatively muted interest in the Arab world within mainstream public and global health.

Public Health in the Arab World is the most important corrective intervention to this pervasive bias since Western powers divided Arab lands – and betrayed Arab peoples – over half a century ago. This volume is an extraordinary collaboration between 86 public health scientists, over two-thirds of whom are living in Arab countries today, with many others having been born and raised in Arab lands. The peoples of Lebanon, Egypt, the Occupied Palestinian Territory, Morocco, Syria, Tunisia, United Arab Emirates, Qatar, Saudi Arabia, Bahrain, Kuwait, Sudan, and Jordan are all directly represented here. The collaboration extends to a broad diaspora across the United States, United Kingdom, Canada, Belgium, France, and Australia. The World Health Organisation has also played an important part through the contributions of its scientific staff in WHO’s Geneva Headquarters and Eastern Mediterranean Regional and Country Offices. It is a book whose ideas and conclusions are driven by data. This fact is recognition that the very best platform for political advocacy is reliable information (the role of Marwan Khawaja, Chief of Social Statistics at UN ESCWA in Beirut and a co-editor of this work, is indicative of a commitment to assembling the best available evidence to underpin policy).

But when one looks closely at the origins of these writers, one cannot escape the special contributions made by two centres – the American University of Beirut (AUB) and Birzeit University. One fifth of the authors of Public Health in the Arab World come from the Faculty of Health Sciences at AUB, an extraordinary tribute to the long and successful leadership of Professor Huda Zurayk, currently Director of the Faculty’s Center for Research on Population and Health. The book is justly dedicated to her. The Faculty’s present Dean, Professor Iman Nuwayhid, is a co-editor of this volume, as is Samer Jabbour, a Senior Lecturer in the Faculty.

Each year, the Institute of Community and Public Health at Birzeit University hosts a writers’ workshop for researchers working in the occupied Palestinian territory. The meeting gathers together public health scientists from not only within the occupied territory, but also from outside – from Norway, Canada, the United States, and Britain, all with the support of the charity, Medical Aid for Palestinians. The purpose is to create a forum that supports the study and analysis of the conditions shaping health under occupation. It provides a place where the voice of Palestinians can be heard outside of the region (peer-reviewed abstracts from the meeting are published on The Lancet’s Website). This international collaboration, led by Professors Rita Giacaman (also a co-editor of the current volume) and Rana Khatib, began in 2007 and resulted in a series of five papers in The Lancet in 2009, entitled “Health in the occupied Palestinian territory.” Two subsequent workshops have produced two volumes of abstracts. The Institute has been a remarkable and inspiring catalyst for mobilising generations of young health researchers to join the cause of science in the service of social change in the Arab World.

Scrabled on the Separation Wall at the Kalandia checkpoint between Jerusalem and Ramallah are the words: “This wall doesn’t limit freedom of the mind.” Public Health in the Arab World proves that this is so. This book offers the clearest voice yet heard from Arab public health scientists (indeed, perhaps from Arab scientists and scholars of all kinds). It is an indispensable statement of possibility, a passionate analysis that creates an astonishing opportunity for action. It is a manifesto for justice.

Richard Horton FRCP FMedSci The Lancet 32 Jamestown Road London UK richard.horton@lancet.com December 22, 2011
Acknowledgments

The original idea behind this volume was to publish the proceedings and papers presented during the 50th Anniversary International Conference of the Faculty of Health Sciences (FHS) at the American University of Beirut (AUB), held in Beirut, December 2004. However, the editors recognized the need for a larger volume on public health in the Arab world. The Ford Foundation, which had supported the Conference and provided funds for publishing its proceedings and papers, extended a grant to support the work to develop the volume. This has happened thanks to Montasser Kamal, Officer for Reproductive Health at the Foundation’s Cairo office, who understood the importance of the work and was enthusiastic to have the Foundation support it. For that, we are truly grateful. The FHS and AUB have also extended considerable support, starting during the tenure of Huda Zurayk as dean, for faculty time and logistics to support the editorial work. The Center for Research on Population and Health at FHS also provided valuable support. This effort could not have proceeded without this institutional support.

The cover illustration is designed by Rana Barazi Tabbara, MD, MPH. With a background career in Family Medicine, a recent MPH from the Faculty of Health Sciences at the American University of Beirut, and a long-practiced hobby in mixed-media arts, Barazi Tabbara is a firm believer in health promotion through artistic expression. The art work on the cover illustration consists of a series of hand-painted tiles, each 5×5 cm, inspired by some of the themes and concepts highlighted in this book.

Many people have contributed to the development of this volume. A small but committed advisory group provided useful comments and guidance, especially in the initial stages. We appreciate the input of Ross Brownson, Jocelyn DeJong, Nabil Kronfol, David McCoy, Belgacem Sabri, David Sanders, and Huda Zurayk. Norbert Hirschhorn carried out English- and style-editing of many chapters and provided insightful comments on others. Aida Farha at AUB’s Saab Medical Library provided very helpful library services throughout the project. Hilda Nassar, medical librarian at AUB, Aida Farha and Maya Abou Saad helped develop the index. Nadine Haddad carried out literature searches on various topics while an MPH student at FHS/AUB. Suzanne El Khechen and Joyce Haddad in the Dean’s Office at FHS/AUB kindly provided administrative assistance to the editorial team. Amr Awad, Dima Bteiddini, Taghreed Elhajj, Zeina Ghantous, Nadine Haddad, Doris Jaalouk, Alena Mack, and Mohamed Salem, all graduate students or research assistants at FHS at the time, volunteered time to take and transcribe minutes of the two meetings that brought together editors and lead authors. Joseph Azar, Chadi Barbour, and Hala Dimechkie at FHS; Nada Sbaiti El-Zein at AUB’s Computing and Networking Services; and Farihan Hamdan, an independent consultant, provided valuable IT services. Leila Roumani and Racha Fadlallah helped correct the book proofs.

Our first editor at Cambridge University Press, Marc Strauss, saw the potential value of the volume when the proposal was first presented to him. We thank him for giving us the opportunity. However, for much of the time that it took to complete the volume, we worked with editors Richard Marley, Joanna Chamberlin and Emma Walker. They were supportive of the work, insightful in giving advice, and quick to respond to inquiries. We thank them for their patience and dedication.

Many authors in this volume have provided internal peer reviews for other chapters. In addition, all chapters have undergone external peer review. Sameh El-Saharty and Salman Rawaf kindly reviewed and provided valuable perspectives about several chapters in Section 6 (Health Systems). The editors are grateful for the contribution of both internal and external reviewers and would like to acknowledge the following external reviewers:
Acknowledgments

Hanan Abdul Rahim (Qatar), Carla Abou-Zahr (Switzerland), Houssain Abouzaid (Lebanon), Raeda Abu Al Rub (Jordan), Abdulrazzak Abyad (Lebanon), Mustafa Afifi (UAE), Narijs Ajeel (Iraq), Kamel Ajlouni (Jordan), Kristine Ajrouch (USA), Naira Al Awqati (Jordan), William Aldis (Thailand), Aysa Al-Riyami (Oman), Ricardo Araya (UK), Haroutune Armenian (USA), Elsheikh Badr (Sudan), Guitelle Baghdadi-Sabeti (Switzerland), Arwa Baidar (Yemen), Seifeddin G. Ballal (Saudi Arabia), Brian K. Barber (USA), Alaka Basu (USA), Malek Batal (Canada), David Bishai (USA), Thomas Bossert (USA), Sofiane Bouhdiba (Tunisia), Derick Brinkerhoff (USA), Melani Cammett (USA), Guy Carrin (Switzerland), Monique Chaaya (Lebanon), Sir Iain Chalmers (UK), Mario Dal Poz (Switzerland), Nadia Dal loul (Lebanon), Ivan Dimov Ivanov (Switzerland), Azza El Nouman (Egypt), Sameh el-Saharty (USA), Heba Elgazzar (USA), Eltigani Eltigani (Saudi Arabia), Sameera El-Tuwajiri (USA), Ibtihal Fadhil (Egypt), Ali Fakhro (Bahrain), Laila Farhood (Lebanon), Mahmoud Fatallah (Egypt), Stephen Fawcett (USA), Osman Galal (USA), Michele Ruth Gamburd (USA), Muntaha Garainbeh (Jordan), Richard Garfield (USA), Buthaina Ghannem (Jordan), Farha Ghannam (USA), Hassan Ghannem (Tunisia), Jen’nan Ghazal Read (USA), Richard Gosselin (USA), Emily Grundy (UK), Hani Guend (Canada), Jean RD Guimarães (Brazil), Omran Habib (Iraq), Nadim Haddad (Lebanon), Gail Harrison (USA), Allan Hill (USA), Norbert Hirschhorn (UK), Dennis Hogan (USA), Marcia Inhorn (USA), Tushar K. Joshi (India), Miloud Kaddar (Switzerland), Montasser Kamal (Egypt), Zeina Kanafani (Lebanon), Khaled Khatab (Germany), Nadir Kheir (Qatar), Eberhard Kienle (Egypt), Judith Kulig (Canada), Adam Leive (USA), Socrates Litsios (Switzerland), Frederick M. Burkle (USA), Chowra Makarermi (Canada), Jihad Makhoul (Lebanon), Bernard Manyena (UK), Theodor Marmor (USA), José Carlos Martines (Switzerland), Abdel Aziz Mousa Thabet (Occupied Palestinian Territory), Alok Mukhopadhyay (India), Mona Nabulsi (Lebanon), Marion Nestle (USA), Olcay Neyzi (Turkey), Peter Pellett (USA), Guénaël Rodier (Denmark), Najib Saab (Lebanon), Ritu Sadana (Switzerland), Shadi Saleh (Lebanon), Monica Schoch-Spana (USA), Zohair Sebai (Saudi Arabia), Ravi Shankar (Nepal), Hania Shokkany (Egypt), Katherine Smith (UK), Nicholas Spencer (UK), Devi Sridhar (UK), Maysun Sukarieh (Lebanon), Derek Summerfield (UK), Simon Szreter (UK), Yoke van der Meulen-Rabaia (Occupied Palestinian Territory), Tony Waterston (UK), Sheldon Watts (Egypt), Johanna Wyn (Australia), Hassan Zaky (Egypt), Nicolas Zdanowicz (Belgium), Zachary Zimmer (USA).
Contributors

Ynesse Abdul-Malak, RN, MPH
Research Scientist, Psychiatry and Behavioral Sciences, Upstate Medical University, Syracuse, New York, USA

Sawsan Abdulrahim, PhD
Assistant Professor, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Rima Afifi, PhD
Professor and Associate Dean, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Ala Alwan, MD
Assistant Director-General, Noncommunicable Diseases and Mental Health, World Health Organization, Geneva, Switzerland

Nisreen Alwan, MBChB, MPH, MSc
Clinical Research Fellow and Specialist Registrar in Public Health, Nutritional Epidemiology Group, University of Leeds, Leeds, UK

Mohammad Assai, MBBS, MPH
Regional Adviser, Community-based Initiatives, World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt

Amr A. Awad, MD, MS
Monitoring and Evaluation Advisor, Center for Leadership and Management, Management Sciences for Health, Aswan, Egypt

Peter Barss, MD, ScD, MPH
Medical Health Officer, Interior Health Authority, Salmon Arm, BC, Clinical Professor, University of British Columbia, Vancouver, BC, Canada

Hyam Bashour, MD, PhD
Professor, Faculty of Medicine, Damascus University, Damascus, Syria

Manal Benkirane, MD, MPH
Program Officer, Association de Lutte contre le SIDA, Morocco

Habiba Ben Romdhane, MD
Professor and Director, Department of Cardiovascular Disease Epidemiology and Prevention, Faculty of Medicine, University of Tunis, Tunis, Tunisia.

Krishna Bose, PhD, MPH
Scientist, Department of Child and Adolescent Health and Development, World Health Organization, Geneva, Switzerland

Rayana Bou-Haka, MD, MPH
Medical Officer, Emergency and Humanitarian Action, World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt

Sylvia Chiffoleau, PhD
Chargée de Recherche CNRS, Chercheuse à l’Institut Français du Proche Orient, Beirut, Lebanon

Jocelyn DeJong, PhD
Associate Professor, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Omar Dewachi, MBChB, PhD
Assistant Professor, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Driss Zine-Eddine El-Idrissi, PhD
Senior Health Economist, the World Bank, Washington, DC, USA

Fadi El-Jardali, PhD
Associate Professor, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Abbas El-Zein, PhD
Associate Professor, School of Civil Engineering, University of Sydney, Sydney, Australia
List of contributors

Fadi A. Fathallah, PhD
Professor and Director, Occupational Biomechanics Laboratory, University of California, Davis, CA, USA

Rim Fayad, MS
Project Manager, Department of Policy & Strategy, The Executive Council, Government of Dubai, Dubai, United Arab Emirates

Hala Ghattas, MSc, PhD
Assistant Professor, Faculty of Agriculture and Food Sciences, American University of Beirut, Beirut, Lebanon

Rita Giacaman, PharmD, MPhil
Professor, Research and Program Coordinator, Institute of Community and Public Health, Birzeit University, Birzeit, Occupied Palestinian Territory

Rima R. Habib, PhD
Associate Professor, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Rana A. Hajjeh, MD
Director, Division of Bacterial Diseases, National Center for Immunizations and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, GA, USA

Samia Halileh, MD, PhD
Assistant Professor, Institute of Community and Public Health, Birzeit University, Birzeit, Occupied Palestinian Territory

Abdelmonem S. Hassan, MS, PhD
Associate Professor, Department of Health Sciences, Qatar University, Doha, Qatar

Jamil Hilal, MLitt
Sociologist and Senior Research Fellow, Birzeit University, Ramallah, Occupied Palestinian Territory

Abdullatif Husseini, PhD, MPH, MS
Associate Professor, Institute of Community and Public Health, Birzeit University, Birzeit, Occupied Palestinian Territory

Ghena A. Ismail, PsyD, C. Psych
Psychologist, Correctional Service Canada, Regional Treatment Center, Kingston, ON, Canada

Doris Jaalouk, PhD, MPH
Assistant Professor, Faculty of Nursing and Health Sciences, Notre Dame University-Louaize, Zouk Mosbeh, Lebanon

Samer Jabbour, MD, MPH
Senior Lecturer, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Diana Jamal, MPH
Research Assistant, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Aisha O. Jumaan, PhD
Team Lead, Division of Public Health Systems and Workforce Development, Center for Global Health, Centers for Disease Control and Prevention, Atlanta, GA, USA

Mey Jurdi, PhD
Professor and Chair, Environmental Health Department, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Afamia Kaddour, MSc, PhD Candidate
Research fellow, INSERM and Université Paris-Sud XI, Paris, France

Elie G. Karam, MD
Professor and Head, Department of Psychiatry and Clinical Psychology, Faculty of Medicine, Balamand University; Executive Director, Institute for Development Research Advocacy and Applied Care (IDRAAC), Beirut, Lebanon

Zeinab Khadr, PhD
Research Professor, Social Research Center, American University in Cairo, Cairo, Egypt

Mohamad Hassan Khalil, MD
Cardiology Consultant, Health Insurance Organization; Coordinator, Committee for Defending People’s Right to Health, Cairo, Egypt

Rana Khatib, PhD
Associate Professor and Director, Institute of Community and Public Health, Birzeit University, Birzeit, Occupied Palestinian Territory

Marwan Khawaja, PhD
Chief, Social Statistics Section, United Nations Economic and Social Commission for Western Asia, Beirut, Lebanon

© in this web service Cambridge University Press & Assessment
List of contributors

Nabil M. Kronfol, MD, DrPH
President, Lebanese HealthCare Management Association, Beirut, Lebanon

Natalia Linos, MS, PhD Candidate
Harvard School of Public Health, Harvard University, USA

Elisabeth Longuenesse, PhD
Researcher, CNRS, Paris, France; Director, Institut Français du Proche Orient, Beirut, Lebanon

Ahmed Mandil, MBChB, DrPH
Professor, High Institute of Public Health, University of Alexandria, Alexandria, Egypt; Coordinator, Saudi Board of Community Medicine, College of Medicine, King Saud University, Saudi Arabia

Awad Mataria, PhD
Technical Officer, Health Economics and Health Care Financing Unit, World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt

Zafar Mirza, MD, MPH
Coordinator, Department of Public Health, Innovation and Intellectual Property, Director General’s Office, World Health Organization, Geneva, Switzerland

Driss Moussaoui, MD
Professor and Chairman, Ibn Rushd University Psychiatric Centre, Casablanca, Morocco; President, World Association for Social Psychiatry

Hani Mowafi, MD, MPH
Assistant Professor, Department of Emergency Medicine, Boston University School of Medicine, Boston, MA, USA; Associate Faculty, Harvard Humanitarian Initiative, Cambridge, MA, USA

Mona Mowafi, ScD, MHS
Research Fellow, Harvard School of Public Health, Boston, MA, USA

Abdulrahman O. Musaiger, MPH, DrPH
Director, Arab Center for Nutrition, & Professor of Nutrition, University of Bahrain, Manama, Bahrain

Cynthia Myntti, MPH, PhD, MArch
Professor, Faculty of Health Sciences & Project Leader, The Neighborhood Initiative, President’s Office, American University of Beirut, Beirut, Lebanon

Mayssa T. Nehlawi, MPH, CHES
Health Writer and Editor, Editorwrites, USA

Adib Nehmeh, DEA,
Regional Advisor on MDGs, United Nations Economic and Social Commission for Western Asia, Beirut, Lebanon

Iman Nuwayhid, MD, DrPH
Professor and Dean, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Omar Obeid, PhD
Professor, Faculty of Agriculture and Food Sciences, American University of Beirut, Beirut, Lebanon

Hoda Rashad, PhD
Research Professor and Director, Social Research Center, American University in Cairo, Cairo, Egypt

David Rawaf, BSc
Medical Student, St George’s University of London, London, UK

Salman Rawaf, MD, PhD
Professor of Public Health, Director, World Health Organization Collaborating Centre, Faculty of Medicine, Imperial College, London, UK

Belgacem Sabri, MD, MPA, MA
Director, Health Systems and Services Development Division, World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt

Mariana M. Salamoun, BS, MA
Research Associate, Institute for Development Research Advocacy and Applied Care (IDRAAC), Beirut, Lebanon

Mohamed E. Salem, MD, MPH
Researcher, Social Research Center, American University in Cairo, Cairo, Egypt

Tanya Salem, BSN, MPH
Associate, the Advisory Group, Kuwait, Kuwait

Bruno Schoumaker, PhD
Professor, Centre de Recherche en Démographie et Sociétés, Université Catholique de Louvain, Belgium

Olivia Shabb, BA, PsyD
Candidate PGSP-Stanford PsyD Consortium, Palo Alto, California, USA

Sherine Shawky MD, DrPH
Research Professor, Social Research Center, American University in Cairo, Cairo, Egypt
Alaa Shukrallah, MBBCh, MSc
Chairperson, Association for Health and Environmental Development; Member of the Executive Committee, Committee for Defending People’s Right to Health, Cairo, Egypt; Senior consultant at Development Support Centre, Egypt

Abla Mehio Sibai, PhD
Professor, Faculty of Health Sciences, American University of Beirut; Director, Center for Studies on Aging, Beirut, Lebanon

Sameen Siddiqi, MD, MSc, DrMed
Coordinator, Health Systems Development, World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt

Dominique Tabutin, PhD
Professeur, Centre de Recherche en Démographie et Sociétés, Université Catholique de Louvain, Belgium

Maha Talaat, MD, DrPH
Head, Infection Control Unit, Global Disease Detection and Response Program, US Naval Medical Research Unit No. 3, Cairo, Egypt

Rania A. Tohme, MD, MPH
Epidemic Intelligence Service Officer, Centers for Disease Control & Prevention, Atlanta, GA, USA

Susan Watts, PhD
Social Scientist, World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt

Livia Wick, PhD
Assistant Professor, Faculty of Arts and Sciences, American University of Beirut, Beirut, Lebanon

Rouham Yamout, MD, MPH
Research Associate, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Nasser Yassin, PhD
Assistant Professor and Director, Outreach and Practice Unit, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Kathryn M. Yount, PhD
Associate Professor, Hubert Department of Global Health and Department of Sociology, Emory University, Atlanta, GA, USA

Huda Zurayk, PhD
Professor and Director, Center for Research on Population and Health, Faculty of Health Sciences, American University of Beirut, Beirut, Lebanon

Contributors of Boxes in Chapters
Gamal Khalafaalla Mohamed Ali, PhD
Secretary General, Federal Pharmacy and Poisons Board, Khartoum, Sudan (Chapter 32)

Norbert Hirschhorn, MD
Lecturer, Yale University School of Public Health, New Haven, CT, USA (Chapter 17)

Nour Kibbi, BA
Medical Student, Yale University School of Medicine, New Haven, CT, USA (Chapter 6)

Contributors whose work is reproduced in the volume
Chadi S. Cortas, MD
Department of Medicine, Brigham & Women’s Hospital and Harvard Medical School, Boston, USA (Chapter 26)

Tony Laurance, MA
WHO West Bank and Gaza Strip, Jerusalem, Occupied Palestinian Territory (Chapter 24)

Asad Ramlawi, MD
Palestinian Ministry of Health, Ramallah, Occupied Palestinian Territory (Chapter 24)

Guido Sabatinelli, MD
United Nations Relief and Works Agency for Palestinian Refugees in the Near East, Amman, Jordan (Chapter 24)

Luay Shabaneh, PhD
Palestinian Central Bureau of Statistics, Ramallah, Occupied Palestinian Territory (Chapter 24)

Note: The views expressed herein are those of the authors and do not necessarily reflect the views of the United Nations.