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# Routledge Handbook in Global Public Health

Edited by Richard Parker and Marni Sommer

# Routledge Handbook of Global Public Health

At the beginning of the twenty-first century, key public health issues and challenges have taken centre stage. They range from arsenic in drinking water to asthma among children and adults; from the re-emergence of cholera, to increasing cancer rates and other chronic disease; from AIDS to malaria and hepatitis; from the crises faced by displaced or refugee populations to the new challenges that have emerged for reproductive health and rights.

Like most aspects of contemporary life, these problems have been impacted by globalisation. The issues that confront us are being shaped by evolving processes such as the growth of inequalities between the rich and the poor in countries around the world, the globalisation of trade and commerce, new patterns of travel and migration, as well as a reduction in resources for the development and sustainability of public health infrastructures.

The *Routledge Handbook of Global Public Health* explores this context and addresses both the emerging issues and conceptualisations of the notion of global health, along with expanding upon and highlighting the critical priorities in this rapidly evolving field. It will be organised in ten main sections. The topics covered include:

- The transition from international to global health
- Structural inequalities and global public health
- Ecological transformation and environmental health in the global system
- Population and reproductive health
- Conflict, violence and emergencies in global public health
- Global public health policy and practice
- Global public health and development
- Global mental health
- Global access to essential medicines
- Health systems, health capacity, and the politics of global public health.

This comprehensive handbook will provide an authoritative overview for students, practitioners, researchers, and policy makers working in or concerned with public health around the globe.

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*Edited by Richard Parker  
and Marni Sommer*

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Dedicated to the memory of Allan Rosenfield



# Contents

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<i>List of figures and tables</i>	<i>xii</i>
<i>Notes on contributors</i>	<i>xvi</i>
<i>Acknowledgements</i>	<i>xxv</i>

1 Introduction	1
<i>Richard Parker and Marni Sommer</i>	

## **PART I**

### **The Transition from International Health to Global Health 9**

2 Global Health in Transition	11
<i>Julio Frenk, Octavio Gómez-Dantés, and Fernando Chacón</i>	

3 The World Health Organization and the World of Global Health	18
<i>Theodore M. Brown and Marcos Cueto</i>	

4 The Shifting Landscape of Public Health: From International to Global Health	31
<i>Adam Kamradt-Scott, Chris Holden, and Kelley Lee</i>	

5 From International to Global: Framing Health in the New Millennium	38
<i>Ronald Labonté</i>	

6 International Health, Global Health, and Human Rights	51
<i>Daniel Tarantola, Laura Ferguson, and Sofia Gruskin</i>	

## **PART II**

### **Structural Inequalities and Global Public Health 63**

7 Global Health Inequities: Structures, Power, and the Social Distribution of Health	65
<i>Sharon Friel and Michael Marmot</i>	



## Contents

8	Eliminating Global Health Inequities: Bridging the Gap <i>David Satcher and Sharon A. Rachel</i>	80
9	Gender-Based Inequities in Global Public Health <i>Gita Sen and Piroska Östlin</i>	88
10	From Natural History of Disease to Vulnerability: Changing Concepts and Practices in Contemporary Public Health <i>José Ricardo Ayres, Vera Paiva, and Ivan França Jr.</i>	98
11	Attacking Inequality in Health: A Challenging but Winnable War <i>Abdo Yazbeck</i>	108
12	Pathways to Health Systems Strengthening for the Bottom Billion <i>Andrew Ellner, Gene Bukhman, and Paul Farmer</i>	117
<b>PART III</b>		
<b>Ecological Transformation and Environmental Health in the Global System</b>		<b>131</b>
13	Climate Change and Global Public Health: Impacts, Research, and Actions <i>Elizabeth G. Hanna, Anthony J. McMichael, and Colin D. Butler</i>	133
14	Water and Health: Fragile Sources <i>Peter G. McCormick and John Pasch</i>	145
15	Double Jeopardy: Vulnerable Children and the Possible Global Lead Poisoning/Infectious Disease Syndemic <i>Merrill Singer</i>	154
16	Air Pollution and Global Public Health <i>Christopher J. Paul and Marie Lynn Miranda</i>	162
<b>PART IV</b>		
<b>Population and Reproductive Health</b>		<b>171</b>
17	The Evolution of Reproductive Health and Rights <i>Susan Purdin, Anne Langston, and Ashley Wolfington</i>	173
18	A Generation at Risk: Prioritising Child and Youth Health <i>Caroline W. Kabiru, Chi-Chi Undie, and Alex C. Ezech</i>	182

19	Reducing Death and Disability from Unsafe Abortion <i>Therese McGinn</i>	191
20	Masculinity and Its Public Health Implications for Sexual and Reproductive Health and HIV Prevention <i>Margaret E. Greene and Gary Barker</i>	199
21	Longevity and Ageing: The Success of Global Public Health <i>Linda P. Fried</i>	208
<b>PART V</b>		
<b>Conflict, Violence, and Emergencies in Global Public Health</b>		<b>227</b>
22	Conflict, Health, and Health Systems: A Global Perspective <i>Ronald J. Waldman and Margaret E. Kruk</i>	229
23	Ending Violence against Women: Essential to Global Health and Human Rights <i>Nancy Glass, Jacquelyn Campbell, Veronica Njie-Carr, and Terri-Ann Thompson</i>	236
24	Protection of Children in Disaster and War <i>Neil Boothby and Alastair Ager</i>	244
25	Nutrition in Emergencies: Indicators and Reference Levels <i>Helen Young</i>	254
26	Water and Conflict: Moving from the Global to the Local <i>Erika Weinthal and Avner Vengosh</i>	265
<b>PART VI</b>		
<b>Global Public Health Policy and Practice</b>		<b>273</b>
27	Global Health Diplomacy <i>Ilona Kickbusch and Chantal Berger</i>	275
28	The Politics of Global Aid <i>Peter Muennig and Celina Su</i>	282
29	Global Tobacco Control Policy <i>Heather Wipfli and Jonathan M. Samet</i>	291

## Contents

30	Global Nutrition: Complex Aetiology Demands Social as well as Nutrient-Based Solutions	303
	<i>Joanne Csete and Marion Nestle</i>	

31	Health Communication: A Catalyst to Behaviour Change	313
	<i>Jane T. Bertrand, Alice Payne Merritt, and Gary Saffitz</i>	

### **PART VII**

## **Global Public Health and Development 327**

32	Tracking Development Assistance for Health, 1990 to 2007	329
	<i>Nirmala Ravishankar, Katherine Leach-Kemon, and Christopher J.L. Murray</i>	

33	Global Blindness and Visual Impairment	346
	<i>Alfred Sommer</i>	

34	Improving Maternal and Newborn Survival through Community Intervention	354
	<i>Tanja A.J. Houweling, Anthony Costello, and David Osrin</i>	

35	Chronic Diseases: The Urgent Need for Action	365
	<i>Henry Greenberg, Susan Raymond, Angela Beaton, Ruth Colagiuri, and Stephen Leeder</i>	

36	Creating Access to Health Technologies in Poor Countries	373
	<i>Laura J. Frost and Michael R. Reich</i>	

### **PART VIII**

## **Global Mental Health 383**

37	Closing the Treatment Gap for Mental Disorders	385
	<i>Vikram Patel, Mirja Koschorke, and Martin Prince</i>	

38	Stigma, Discrimination, Social Exclusion, and Mental Health: A Public Health Perspective	394
	<i>Nicolas Rüsçh, Sara Evans-Lacko, Sarah Clement, and Graham Thornicroft</i>	

39	Developing Mental Health Programmes in Low- and Middle-Income Countries	402
	<i>Florence Baingana</i>	

40	Sexual Violence: A Priority Research Area for Women's Mental Health	411
	<i>Jill Astbury and Rachel Jewkes</i>	

**PART IX****Global Access to Essential Medicines 419**

- 41 Global Access to Essential Medicines: Past, Present, and Future 421  
*Jonathan D. Quick and Eric Olawolu Moore*
- 42 Challenges of Local Production of Pharmaceuticals in  
Improving Access to Medicines 433  
*David Ofori-Adjei and Paul Lartey*
- 43 Medicine Safety and Safe Access to Essential Medicines:  
Time for Renewed Attention and Innovation 443  
*Malebona Precious Matsoso, Ushma Mehta, and Fatima Suleman*
- 44 Saving the Lives of Children by Improving Access to Essential  
Medicines in the Community 451  
*Martha Embrey, Jane Briggs, and Grace Adeya*
- 45 Antiretrovirals as Merit Goods 461  
*Ethan B. Kapstein and Josh Busby*

**PART X****Health Systems, Health Capacity, and the Politics of  
Global Public Health 471**

- 46 Health Systems Strengthening: Past, Present, and Future 473  
*Sara Bennett*
- 47 Politics of Global Health: Understanding the Politics of Aid 481  
*Rebecca Dodd*
- 48 Developing Drugs for the Developing World: The Role of  
Product Development Partnerships 490  
*Maria C. Freire*
- 49 Models of Cooperation, Capacity Building, and the Future  
of Global Health 497  
*Gerald T. Keusch*
- 50 Long-term Academic Partnerships for Capacity Building in  
Health in Developing Countries 506  
*Jeffrey D. Mulvihill and Haile T. Debas*

*Index* 516

# List of figures and tables

---

## Figures

5.1	Globalisation and health: selected pathways and elements	44
7.1	Life expectancy at birth by region, 1970–5 and 2000–5	66
7.2	Life expectancy at birth, select African countries, 1960–2005	66
7.3	Trends in male and female life expectancy at age 20, by educational attainment, Russian Federation	67
7.4	Prevalence ratio of diabetes mellitus, by educational level, age adjusted, men and women in 16 European countries	68
7.5	Under-five mortality rates, select countries, by household wealth	68
7.6	Family policy generosity and infant mortality levels, <i>c.</i> 2000	71
7.7	Urban underweight and overweight among adult women in select low- and middle-income countries	72
7.8	Healthy life expectancy (HALE) and private spending as a % of total health spending, 2000	72
7.9	Mortality over 25 years according to level in the occupational hierarchy. First Whitehall study of British civil servants	73
7.10	Poor mental health and precarious employment status among manual workers, Spain 2002	74
8.1	Determinants of health	81
9.1	Framework for the role of gender as a social determinant of health	89
10.1	Diagram of the natural history of disease and corresponding levels of prevention	100
10.2	Vulnerability and human rights framework: individual, social, and programmatic dimensions	104
11.1	Infant mortality gaps in LMIC	109
11.2a and 11.2b	Utilisation gaps for critical health services in 56 LMIC	110
12.1	Haiti's chief public nursing school destroyed, 12 January 2010	118
12.2	Pendulum swing	119
12.3	The WHO health system framework	121
12.4	Direct assistance for health	123

13.1	Human health effects of climate change	137
14.1	Balancing supply and demand in a water-rich region	146
14.2	Balancing supply and demand in a water-scarce region	147
14.3	Sources of water supply for the Amman-Zarqa urban areas, and for the irrigated areas of the Jordan Valley	149
17.1	Deaths per 1,000 infants under age 1 year	179
21.1	Life expectancy at birth, by region, 1950–2015	210
21.2	Transforming Public Health in accord with the ‘rectangularisation’ of society	210
21.3	Proportion of deaths due to communicable and non-communicable causes, 2004	212
21.4	Smoking and tobacco use patterns among youth, aged 13–15, worldwide, 1999–2005	213
21.5	Non-communicable disease mortality among young adults	216
26.1	Global total actual renewable water resources per capita (m <sup>3</sup> /year) in 2005	266
30.1	Causes of child malnutrition: UNICEF framework	306
31.1	The P Process (designed by CCP/JHBSPH)	317
31.2	Illustrative ‘pathways’ framework that shows how an HIV communication programme is expected to achieve its objectives	318
31.3A	Trend in reach of campaign	322
31.3B	Percent who reported 2+ protective actions in past 3 months by audience segment	322
31.3C	All knowledge and protective practices in intervention vs. control villages, 2008	323
31.3D	Trends in caging practices	323
31.3E	Trends in protective behaviours 2006–2008	324
31.3F	Protective behaviours reported since campaign began, by number of campaign messages recalled	324
32.1	Development assistance for health from 1990 to 2007 by channel of assistance	331
32.2	Development assistance for health from 1990 to 2007 by source of funding	334
32.3	Channel-wise composition of publicly financed DAH by donor in 2007	335
32.4	BMGF’s global health commitments and disbursements from 2000 to 2007	335
32.5	Development assistance for health from 1990 to 2007 by type of assistance	336
32.6	Development assistance for health from 1990 to 2007 for HIV/AIDS, tuberculosis, malaria, and health sector support	337
32.7	Top ten recipients of development assistance for health from 2002 to 2007, disaggregated by channel of assistance	339

## List of figures and tables

32.8	Top ten countries in terms of per capita development assistance for health received from 2002 to 2007, disaggregated by channel of assistance	339
32.9	World map of development assistance for health	340
32.10	Top 30 country recipients of development assistance for health from 2002 to 2007, compared with top 30 countries in terms of all-cause burden of disease in 2002	341
33.1	Prevalence of blindness in relation to per capita income	347
34.1	Absolute inequalities in neonatal (0–1 month) (RD NN), post-neonatal (1–12 months) (RD PNN), and child (1–5 years) mortality (RD child) between the poorest and richest quintiles for 43 low- and middle-income countries	356
34.2	Median levels of health care use across 45 low- and middle-income countries	357
34.3	Types of interventions to improve average maternal and newborn survival	359
36.1	The access framework	375
41.1	WHO Framework for Equitable Access to Essential Medicines	425
42.1	Availability of medicines in private retail outlets by country income groups	435
44.1	Pharmaceutical management	454
44.2	Framework for appropriate community drug management for childhood illness	455
45.1	Median price (US\$) of first-line antiretroviral drug regimens in low-income countries, 2004–07	465
47.1	Aid effectiveness principles	484
47.2	STD and HIV control vs. other health commitments	487
48.1	Drug development participation analysis: 2000	492
48.2	TB drug development participation analysis: 2009	495
49.1	Models of collaboration	499
50.1	Human resources for health	507
50.2	Tertiary student enrolment vs faculty appointments in the US 1970–2007	508
50.3	Tertiary student enrolment vs faculty appointments in sub-Saharan Africa 1970–2007	509

## Tables

2.1	Differences between international health and global health	12
5.1	Millennium Development Goals and health	39
5.2	Inherent global health issues	41
5.3	Framing global health arguments	48
19.1	Grounds on which abortion is legally permitted in 194 countries, 2007	192

21.1	Adult obesity prevalence. Top 10 countries with highest and lowest prevalence of obesity, by gender	214
25.1	Nutritional indicators	255
25.2	Reference levels for classification of severity of acute malnutrition in a community ( $< -2$ Z scores, or oedema)	259
25.3	Classification of worldwide prevalence ranges of low height-for-age and low weight-for-age among children under five years	261
25.4	WHO BMI classification	261
25.5	BMI reference levels recommended by WHO	262
29.1	Adverse effects from exposure to tobacco smoke	292
29.2	Projected global tobacco-caused deaths, by cause, 2015 baseline scenario	293
30.1	Prevalence of childhood undernutrition, 2005	304
32.1	NGOs registered in the US with highest cumulative overseas health expenditures from 2002 to 2006	333
33.1	Cataract surgical rates	347
33.2	Change in CSR: India (cataract operations per million population per year)	348
37.1	Major mental disorders across the life course	386
42.1	Comparison of availability and price in private, public, and faith-based sectors in urban and rural communities in Ghana	435
50.1	Comparing the numbers of non-physician clinicians (NPCs) and physicians in seven sub-Saharan African countries	507
50.2	Four examples of successful long-term academic partnerships	512



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World Health Organization, for permission to reprint parts of ‘Physical Status: The Use and Interpretation of Anthropometry (1995) by Expert Committee’, from the *WHO Technical Report Series 854*.

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World Health Organization, for permission to reprint the figure ‘Median price (US\$) of first-line antiretroviral drug regimens in low-income countries, 2004–2007’ (2008) from the report *Towards Universal Access: Scaling up priority HIV/AIDS interventions in the health sector*, available online at <http://www.who.int/hiv/pub/2008progressreport/en/>.

World Health Organization, for permission to reprint the figure ‘Non-communicable disease mortality among young adults. Age-standardized death rates from chronic disease for 2005 among adults aged 30–69’ (2005) from the report *Preventing Chronic Diseases: a vital investment*, available online at [http://www.who.int/chp/chronic\\_disease\\_report/en/index.html](http://www.who.int/chp/chronic_disease_report/en/index.html).

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World Health Organization, for permission to reprint the figure 'Health Systems' (2007) from the report *Everybody's business: Strengthening health systems to improve health outcomes: WHO's framework for action*, Section 2, Page 3, available online at [http://www.who.int/healthsystems/strategy/everybodys\\_business.pdf](http://www.who.int/healthsystems/strategy/everybodys_business.pdf).

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# Introduction

*Richard Parker and Marni Sommer*

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At the beginning of the twenty-first century, key public health issues and challenges have taken centre stage on the global scene. Ranging from arsenic in drinking water to asthma among children and adults; from the re-emergence of cholera and diphtheria, to increasing rates of various forms of cancer; from HIV and AIDS to MDR-TB, malaria, and hepatitis; from the crises faced by displaced or refugee populations to the new challenges that have emerged for reproductive health and rights; from the experience of public health emergencies as the result of disasters such as tsunamis, earthquakes, and catastrophic storms to the growing spectre of potential global pandemics such as those linked to H5N1. The expansion of serious public health problems, increasingly taking shape on a global scale, has been one of the defining features of recent history.

Like most aspects of contemporary life, the range of key public health problems faced by specific countries has increasingly been affected by a range of factors associated with globalisation. The issues that confront us presently have been, and are being, shaped by evolving processes such as the growth of inequalities between the rich and the poor in countries around the world, the globalisation of trade and commerce, new patterns of travel and migration, as well as a significant reduction in available resources for the development and sustainability of public health infrastructures. The social, cultural, economic, and political transformations associated with globalisation have, in turn, increasingly intersected with the growing range of environmental threats produced by industrialisation, epidemics of newly emerging infectious diseases, and the rapid increase of chronic diseases linked to changing lifestyles.

The new public health challenges of the twenty-first century have taken place within the context of a rapidly changing political and institutional landscape. In recent decades the field that was initially described as *international health* involving sovereign states has increasingly been re-conceptualised as the field of *global health* within the global system. This change represents more than a simple shift in language. It stems from a fundamental transformation in the nature of health threats and in the kinds of solutions that must be posed to them. It recognises that many of the most serious health threats facing the world community today reach beyond the sovereign borders of nation-states and require the attention not only of governments but also of a range of non-state institutions and actors.

Just as we have witnessed remarkable changes in recent decades in the nature of the public health problems that challenge us globally, we have also witnessed an unprecedented period of growth in the field that has come to be known as *global health*. As is reported in a number of the contributions to this volume, there has been a massive increase in development assistance for health over the course of the past two years. A field once largely dominated by the agencies of the UN system and bilateral donor agencies in high-income countries has seen significant reorganisation with the entrance and rising importance of a growing range of new non-state or hybrid public/private agencies such as the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), the Global Alliance for Vaccines and Immunisation (GAVI), the Bill & Melinda Gates Foundation, and a wide range of international non-governmental organisations (NGOs). Multilateral institutions, bilateral agencies, private foundations, and universities and research institutes around the world have announced and begun to implement large-scale global health initiatives. These changes have been reflected, as well, on college and university campuses, where epidemiology, public health policy, and, in particular, global health have become among the fastest growing undergraduate and graduate courses of study for what has been described as the global generation.

As in any field undergoing such rapid and transformative change, the pace of events and the implementation of new initiatives often threaten to move more quickly than the capacity of the field to reflect upon its most basic assumptions, and to reorganise itself in order to provide the conceptual and structural foundations for its continued development. In the case of global health, key questions have emerged about the ways in which global transformations have affected the changing patterns of communicable and non-communicable disease (both North and South), about the impact of global inequalities on the social determinants of health and disease, about unresolved conflicts and contradictions in global health governance structures, and about the probable outcome and possible response to major environmental shifts such as global climate change, as well as to major economic events such as the global financial crisis. In turn, these questions have been linked to important, but largely unresolved, debates about both the possibilities and the potential limitations of technological advances aimed at confronting global health challenges and about the need for far-reaching changes to strengthen health systems and reorganise models of development cooperation to more effectively address global health priorities in the future. The very definition of *global health*, and the unique role of *public health* within this rapidly changing field, have both been questions that have been the focus of much recent attention and debate. The challenge of developing a vision for this field that will truly reflect the true extent of global diversity – inclusive as much of the voices and views of experts and policymakers from the global South as it is of those from the global North – continues as one of the key unmet objectives for a field that is still very much in a process of formation and transformation.

Within such a context, there is an increasingly urgent need to respond to these important questions and controversies by opening up new opportunities for meaningful intellectual dialogue, debate, and exchange about the key questions and challenges that currently confront the field of global health, and for critical reflection and increased awareness concerning the kinds of contributions that public health and population sciences can offer in relation to these challenges. This *Handbook* has emerged and taken shape within this context, and seeks to address both the emerging issues and conceptualisations of the notion of global public health, along with expanding upon and highlighting the critical priorities in this rapidly evolving field. While it has been developed with the goal of raising issues that are of importance for the field of global health broadly defined, it also prioritises an understanding of the special contributions that public health and population sciences can make within this field – an emphasis that we

have sought to make explicit in choosing the title of the *Routledge Handbook of Global Public Health*. It seeks to offer in one location a broad introduction to key experts, key material, and key debates. All of the chapters take the form of original contributions, although a small number have been adapted in abridged form from elsewhere. Our goal is to offer readers a rich understanding of the field of global public health, tracing the origins of big debates, describing the current state of play in particular fields, and hinting at where the future might be heading. The *Handbook* thus seeks to provide an authoritative overview for students, practitioners, researchers, and policymakers working in or concerned with public health around the globe. It is organised into ten main sections (Parts I to X), which by no means exhaust the possible topics in such a vast field, but which do seek to map out some of the important areas of analysis and debate that are currently the focus of much of the most important attention in the field. In this Introduction to the volume, we will try to briefly describe the contents of each of these major sections, and to offer a sense of why these discussions are so central to the evolving field of global public health.

Part I of the *Handbook*, 'The Transition from International Health to Global Health', includes chapters about a number of the pioneering institutions and individuals in international health, with a key focus on exploring the conceptual transition to global health. It emphasises early efforts to build the field of international health, as well as more recent critique on the limited nature of conceiving health as international, rather than as operating within the global system. Contributions in this section explore the ways in which institutional structures, policies, and programmes have been shaped by broader social, economic, and political forces, and highlight the changing institutional architecture of the field as a growing range of intergovernmental agencies have become increasingly involved in health-related issues, and as the evolving field of global health has also become populated by private organisations and new hybrid public-private initiatives. They focus on the extent to which the major health issues confronting low-income countries are embedded in the global economic policies and practices that are articulated and controlled by wealthier countries, and describe the ways in which global health challenges have been framed through such policies in relation to health and security, health and development, health and global public goods, health and trade, health and human rights, and health and ethical reasoning.

Part II of the *Handbook*, 'Structural Inequalities and Global Public Health', examines the social patterning of health, including social exclusion, health disparities, and inequalities. Chapters in this section focus on the unequal distribution of power in society and its implications for the social determinants and the social distribution of health. They explore diverse strategies for eliminating inequities and disparities in health based on structural factors, including class, race and ethnicity, and gender, among other axes of inequality. They discuss the shift from public health approaches focused on behaviour change and individual agency, to the importance of utilising a structural approach in exploring public health challenges and devising realistic interventions for improving population health. Contributors emphasise the complex relationship that exists between diverse forms of power and the social distribution of health, highlighting the ways in which social exclusions translate into health disparities. They call our attention to the need for a fundamental re-conceptualisation in public health, in particular through a shift from a focus on what has been described as 'the natural history of disease' to a new emphasis on the 'social dimensions of vulnerability'. They offer key insights into the ways in which social transformations and the empowerment of disenfranchised communities and populations might be able to transform existing health inequalities – while also highlighting the very different conceptual and programmatic approaches that currently exist within global public health for how best to achieve such transformations. In different ways, all the chapters in this

section of the *Handbook* thus call attention to the extent to which the most important challenges in the field of global public health are not merely technical but fundamentally political in nature, and highlight how the transformation of health systems will ultimately be possible only through the transformation of broader social, political, and economic systems that shape and determine health in highly specific ways.

Part III of the *Handbook*, 'Ecological Transformation and Environmental Health in the Global System', focuses on the transformative nature of the interactions occurring around the globe between populations and the environment, with significant ramifications for population health. The chapters in this section discuss the social dimensions of environmental health, including the long-term impact of climate change, the challenges of water and air pollution, and the synergy between environmental devastation and other health issues. The discussions here focus on the human-driven aspects of climate change and its profound implications for population health. Highlighting the ways in which rapid economic growth, if continuing to be driven by the burning of fossil fuels, will contribute to increasingly adverse health consequences, this analysis points to the need for more accelerated policy making linked to the actual rate of climate change occurrences. Climate-related health impacts discussed include those linked to temperature-related illness, extreme weather and sea level rise, air pollution, food security, and social upheaval. A full awareness of these issues highlights the need for public health alongside of responses from national governments, as well as an overdue linkage to be made in climate change advocacy – one that links the important relationship between climate change and health impacts. The chapters in this section also highlight the fragile nature of the world's existing water sources, and the potential responses to be utilised in protecting and managing the limited supply. Noting that as much as one-tenth of the global disease burden could be prevented by improving water supply, sanitation, hygiene, and management of water resources, they call attention to the importance of both quantity and quality of water supply, and the ways in which even water-scarce countries might be able to increase the availability of improved drinking water. They also focus on the interlinked nature of environmental factors and population health, such as the synergy that exists between vulnerable children's exposure to lead and their increased risk of morbidity and mortality from infectious disease, and the dangers of increasing air pollution for human health. Highlighting the challenges that exist in quantifying the health impacts of diverse forms of pollution, the analyses in this section also emphasise the need for increased public health attention to research and advocacy, in both high- and low-income countries.

Part IV of the *Handbook*, 'Population and Reproductive Health', examines the priority global health challenges in population studies, sexual and reproductive health and rights, and the health of young people, as well as the global challenges of ageing. The chapters in this section provide an overview of the important changes that have taken place in the field of population studies in recent decades, particularly through the process that led up to the International Conference on Population and Development (ICPD) held in Cairo in 1994 – and, in particular, the fundamental conceptual shift that took place as a field primarily focused on population control was gradually reinvented and reoriented to focus on reproductive health and reproductive rights. They highlight the impact of this transformation for the delivery of reproductive health services and for the diverse populations of women and men that must have access to these services. Within this broader context, the chapters highlight the importance of key areas that continue to be highly contested politically, such as the urgent priority of reducing death and disability from unsafe abortion, and the struggle to understand and confront challenges and barriers to recognising men and masculinity as important issues within reproductive health and public health more generally, highlighting the health risks that young men suffer in

performing masculinities shaped by societal and cultural forces that make them vulnerable by virtue of their gender. Finally, this section emphasises the special vulnerability not only of children and young people, particularly in low-income countries and communities, but also the rapidly increasing populations of older adults even in resource-poor settings where ageing has not been considered a serious concern in the past. The concluding chapter in particular explores the implications of these major demographic changes for both country-specific and global public health approaches and solutions in the future.

Part V of the *Handbook*, 'Conflict, Violence, and Emergencies in Global Public Health', explores the current realities of conflict and health, including war, torture, civil disturbances, gender-based violence, and the public health challenges of displaced populations. Chapters in this section focus on the global dimensions of population-level violence, and the disproportionate impact that violence has on the poor and disenfranchised within populations affected by conflict and disasters. They include an analysis of the ways in which armed conflict has changed in recent decades, and its implications for population health. Describing the emergence of humanitarian organisations over time, they emphasise that a disciplined public health response to post-conflict settings is a relatively recent development, and focus on the importance of developing public health responses within the often unstable political and social context of many countries. Also discussed is the global pervasiveness of violence against women; this challenge is examined within a human rights framework and an argument is made that such an approach is critical because of interrelated contextual factors (such as poverty and discrimination), which impact on women's lives and compound their vulnerability to violence. Related is an exploration of the need for protection of children as a population facing unique risks in conflict and post-conflict settings, with the presentation of eight fundamental elements of a framework for creating protected environments for vulnerable children, ranging from protective legislation and enforcement, to addressing relevant attitudes, traditions, customs, behaviours, and practices. This section also presents a succinct guide to using nutritional indicators and reference levels in emergency-affected populations, and seeks to clarify a widely held myth that wars over water are imminent around the world, arguing that sub-national disputes over water are more the norm. It highlights challenges of access in relation to both nutrition and water deprivation in situations of conflict or emergency, emphasising the critical importance of addressing these issues, particularly in low-income countries where rapid population growth and urbanisation aggravate shortages caused by emergencies.

Part VI of the *Handbook*, 'Global Public Health Policy and Practice', focuses on the changing priorities in health policy within and between countries around the globe, with chapters addressing the crucial importance of global health diplomacy, and the roles of international agencies, governments, and civil society in fostering improved population health. It begins with an examination of what has come to be described as 'global health diplomacy', and emphasises that precisely because the trans-border health challenges that characterise the recent era of globalisation can only be resolved through joint action on the part of many countries working together, health more than many other fields has moved beyond the technical realm and is becoming a key element in foreign policy, trade relations, and security agreements between countries. The area of global health diplomacy recognises these tendencies and seeks to capture the multi-actor and multi-level negotiation processes that shape the global health policy environment and manage it through global governance systems. There is also an overview of the politics of global aid for development and health that examines the historical evolution of international aid efforts, particularly in relation to health and development. Chapters explore important trends and distinctions in relation to current patterns of international giving that are directly relevant for global public health policy and practice, as well as many of



the key critiques that have been directed at dominant approaches to humanitarian assistance and development aid (and their impact, or lack of it, in relation to key global public health challenges). They also provide detailed case studies of two important areas of global public health policy: tobacco control and nutrition. They describe the process through which the WHO's Framework Convention on Tobacco Control (FCTC), a global public health treaty that seeks to incorporate best practices in terms of tobacco control, was developed and put into place, highlighting the extent to which the ongoing battle to control tobacco and the health impacts of smoking might provide a key case study offering insights that are relevant to global health diplomacy and global public health policy more broadly. The discussion of global nutrition includes a focus on the linkages between both undernutrition and overnutrition to poverty and economic exclusion, and signals the potential limitations of narrow technical solutions to the complex social, economic, and environmental challenges of global nutritional deprivation. This section also includes discussion of global health practice as well as policy, calling attention to the importance of health communication as a key to behaviour change aimed at reducing risk and vulnerability at both individual and population levels.

Part VII of the *Handbook*, 'Global Public Health and Development', examines the health effects of major economic development trends and the impact of key interventions aimed at responding to both long-term and emerging global health problems. It begins with a broad overview of the dramatic increase that has taken place in development assistance for health from 1990 to 2007. Following this overview, chapters provide detailed case studies of a number of key areas of intervention in global public health. The first focuses on addressing preventable blindness and visual impairment, and the strides that have been taken globally in combating cataract, trachoma, vitamin A deficiency, onchocerciasis, and other chronic causes of blindness, highlighting the ways in which visual impairment and economic development (or the lack of it) are intertwined globally. The next examines the importance of maternal and child survival for global health, highlighting the role of socio-economic inequalities in shaping both death rates and the success of interventions, providing an overview of the types of interventions that have been introduced to improve maternal and newborn survival, and giving attention to the importance of community-based interventions. The third case study outlines the emerging global crisis of chronic disease, highlighting the urgent need for action on what was once perceived to be a relatively low priority in resource-poor settings. This section also explores the challenges of creating access to health technologies in poor countries, emphasising that people's ability to obtain and use good-quality health technologies is far more than simply a technical issue involving the logistics of technology delivery. It focuses on the social values, economic interests, and political processes that influence access to technologies, and conceptualises access not as a single event but as a continuous process that involves a series of activities and actors over time.

Part VIII of the *Handbook*, 'Global Mental Health', explores the growing recognition of mental health as a significant health burden for populations in the global South as well as the global North. This section sounds a call for closing the global treatment gap in mental disorders. Chapters focus on the realities of populations living in low- and middle-income countries without adequate access to care and treatment for mental-health-related disorders. They highlight increasing evidence on the cost-effectiveness of many mental health interventions, and argue that increased investment in bringing such quality treatments to resource-poor settings is long overdue. Drawing on key case studies of the gap in mental health programmes in low- and middle-income countries, and emphasising the particular challenge of the human resources for health crisis, chapters in this section call attention to the fact that morbidity and mortality are not the only measures of relevance for a decision to increase investment in mental health

services. They examine the ways in which mental disorders hinder individual and societal productivity, providing recommendations for integrating mental health into primary health care services, and the particular challenges to be addressed in conflict-affected settings, among others. They also highlight the unique importance of responding to sexual violence as a priority research area for global mental health, emphasising that the availability of quality health service interventions for women experiencing sexual violence remains inadequate, and underscoring the need for increased attention to this often overlooked contributor to women's poor mental health status globally.

Part IX of the *Handbook*, 'Global Access to Essential Medicines', focuses on the enormous challenge of ensuring that essential medicines are reaching populations around the globe, through improved pharmaceutical management systems, attention to counterfeit and poor quality drugs that are widespread within global and local markets, and the role of global powers in impacting the price and availability of medicines to populations in need. This section provides an introduction and overview to the field of global access to essential medicines. It reviews the early beginnings of pharmaceuticals, and the rise of the 'essential medicines' concept within the global health community, highlights the role of advocacy in widening access to essential medicines across the world, and emphasises the engagement of politicians, practitioners, international organisations, celebrities, and, most importantly, activists, in increasing access to AIDS medicines. While noting the enormous achievements in the provision of pharmaceuticals in the last 70 years, the analysis emphasises the significant challenges that remain, including a dearth of research and development for tropical diseases, unreliable supply systems in much of the world, and anti-microbial resistance. The chapters in this section take on different aspects of access to medicines, exploring the possibilities for local production of pharmaceuticals in improving access to medicines in low-income countries, and analysing current challenges in assuring medicine safety. They also focus on the unique essential medicine needs of children, highlighting the joint WHO and UNICEF approach to providing medicines to children, and emphasising the existing tools that public health has to improve childhood morbidity and mortality outcomes. This section of the *Handbook* also includes an analysis of the important impact of HIV treatment access campaigns, and the transformation of antiretroviral (ARV) medicines from 'private goods' – limited to the high-income world – into 'merit goods', thus stimulating action for universal access to treatment and transforming broader policy debates about access to essential medicines in resource-poor contexts.

Part X of the *Handbook*, 'Health Systems, Health Capacity, and the Politics of Global Public Health', examines the ongoing challenge of health system strengthening as well as the complicated politics of international development assistance in the changing context of the twenty-first century. It includes an historical overview, outlines current debates, looks at future challenges for health system strengthening in resource-poor settings, and highlights the ways in which dramatic increases in disease-specific funding, especially for HIV and AIDS, has placed huge pressures on weak health systems that in turn have made it impossible to reach the most ambitious goals of such initiatives. While the need for health system strengthening has increasingly become the focus of widespread agreement, there has been more disagreement about the means to achieve this objective, and about the most important challenges that will need to be addressed in the future as the existing problems of health systems in low-income countries are compounded by a range of issues such as globalisation, changes in technology, and the rise of chronic disease. This section also focuses on the increasing politicisation of aid for health and development. It argues that the field of global health is characterised by multiple inputs and agents – each with their own perspective and motivations. Ideological divisions in development discourse are typically played out in global public health policies, often resulting

in major shifts in the health policies of large donors, just as non-state actors now have increasing power and influence, opening new possibilities for cooperation for the potential good of global public health. Some of these possibilities, such as public/private partnerships for drug development or other similar initiatives, offer an especially important set of opportunities with the potential to transform the field of global public health in profound ways. Yet significant hurdles also exist, and the chapters in this section of the *Handbook* also emphasise the difficulties of ensuring necessary financial resources and of sustaining commitment over time, as well as the complexities of building capacity, whether of researchers, health system personnel, policymakers, or advocates within a global public health system that continues to be characterised by serious inequities. They highlight dangers of unequal and unjust collaborative relations that accentuate the risks of 'brain drain' from the global South to the global North, and the continued inadequacy of resources, attention, and prioritisation of building strong health systems and cadres of effective health workers in the global South – as well as the role of long-term academic partnerships for building capacity and transferring technical expertise in resource-poor settings.

In bringing together the contributions that make up this *Handbook*, we have worked hard to ensure a text that will offer a scholarly yet accessible overview of the diverse and rapidly developing field of global public health today. In doing so, we have sought not to privilege any one particular perspective but rather to offer an up-to-date overview of the field. By describing past origins, present trends, and future possibilities, we want to offer readers insight into an area of work which has captured our own attention and imagination for many years now. We hope that you find this book helpful, and that it will be a useful source of reference for many years to come. We have selected the various contributions with a diverse readership in mind. Fundamentally, they aim to both describe and inform about the changing nature of global public health, along with advocating for new approaches to researching and addressing population health within the global system. Our hope is that the *Routledge Handbook of Global Public Health* will therefore appeal to a wide range of people working in health, human rights, and development, and that its potential readers will include trainee health professionals (including students in all fields of global public health), and graduates and undergraduates in the health-related social sciences, as well as public health educators, researchers, and policy-makers. But we also hope that the book will appeal to activists, advocates, and practitioners around the globe who are working in the diverse fields of health policy, gender and health, sexual and reproductive health, infectious disease, environmental health, social work, and globalisation.

## **Part I**

# The Transition from International Health to Global Health

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# Global Health in Transition

*Julio Frenk, Octavio Gómez-Dantés, and Fernando Chacón*

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Global health is experiencing a moment of unprecedented attention and expansion. Yet, despite its increasing importance, global health has developed in the absence of an academic tradition that can guide its efforts to generate knowledge and lead its practical applications. The purpose of this chapter is to present some ideas that may help build such a tradition on the basis of three elements (Frenk 1993): (1) a conceptual base, which serves to establish the limits of the specific areas for research, education, and action in global health; (2) a base for the production and reproduction of knowledge, which involves the creation of a critical mass of researchers, as well as academic initiatives, programmes, and institutions responsible for the generation of a body of specific knowledge and the construction of an intellectual field through the collaboration of several disciplines; and (3) a base for the utilisation of knowledge, which would translate evidence into technological developments, public policies, and global solidarity. The efforts to create an academic field for global health should respond to the interests of all countries, thus avoiding interpretations associated with a specific group of nations.

## **Conceptual base**

Several definitions of global health have been proposed (Institute of Medicine 2008; Koplan *et al.* 2009; Fogarty International Center 2008). Some of them emphasise its object of analysis; others, its geographical focus; some others, its mission. However, as a field of public health, global health should be defined first of all by its population level of analysis (Frenk and Chacon 1991). Its distinctive feature is that it involves: the entire population of the world, along with the subjects of the international community, namely nations, with cultural and territorial identity; states, as the political organisations of these nations; and various bodies comprising multiple nations, such as economic and political blocs, multilateral organisations (public, private or mixed, profit or non-profit), and academic institutions charged with the production of knowledge-related global public goods.

These populations, as any population within a country, face health conditions for which social responses are developed. Thus, the concept of global health should include a component of global health conditions and a component of global health responses.

*Global health conditions*

The contents of the concept of global health needs should be distinguished from those traditionally attributed to ‘international health’ (Table 2.1). Coined around the creation of the International Health Commission in 1913 by the Rockefeller Foundation (Brown *et al.* 2006: 62), the term ‘international health’ was identified with the control of epidemics across borders and in sea ports, and with the health needs of poor countries, mostly communicable diseases, and maternal and child health (Godue 1992). In fact, before the creation of the International Health Commission, these activities were classified under the even more limited concept of ‘tropical health’, developed in Europe in the late nineteenth century, which has obvious colonial undertones (Wilkinson and Power 2008: 386).

The contents attributed to international health have been revitalised through the dissemination of the concept of ‘global health’. In the media, in scientific literature, and in several of the main international health initiatives, global health is being identified with problems – respiratory infections, diarrhoeal diseases, HIV/AIDS, malaria, TB, maternal deaths – that are supposed to be characteristic of the developing world.

Global health, however, is not ‘foreign health’. It should include those health conditions that affect most countries, regardless of their geographical position or stage of development, and should be centrally concerned with the distribution of those conditions around the world. Global health should not be identified with communicable diseases either. In the search for equity, public health professionals have disregarded a now well-documented reality: that *problems only of the poor*, like many common infections, malnutrition, and maternal deaths, are no longer the *only problems of the poor* (Frenk 2006). According to the WHO (2008), almost one-half of the disease burden in low- and middle-income countries is represented by non-communicable disorders. Salient among them are ischaemic heart disease, stroke, diabetes, and cancer.

In addition, the separation between communicable and non-communicable diseases is not as obvious as was once thought. Many diseases originally classified as non-communicable have been found to have an infectious cause. According to the WHO, one-fifth of all cancers worldwide are caused by chronic infections produced by agents such as the Epstein-Barr virus, human immunodeficiency virus, human papilloma virus, hepatitis B virus, and *Helicobacter pylori*. In addition, many non-communicable diseases or their treatments weaken the immune system, giving rise to associated infections that are often the precipitating cause of death. In

Table 2.1 Differences between international health and global health

<i>Objects of analysis</i>	<i>International health</i>	<i>Global health</i>
<i>Health conditions</i>	Health needs of poor nations, communicable diseases Dependence-oriented Unilateral	Global transfer of health risks  Interdependence-oriented Bilateral and multilateral
<i>Health responses</i>	Technology-oriented  ‘Vertical’ approach through disease-specific programmes Assistance in health services Control of communicable diseases	Considers behavioural, cultural, political, and economic determinants  ‘Diagonal’ approach to strengthen health systems through explicit priorities Cooperation in capacity strengthening Generation of public goods, management of externalities, and solidarity functions

sum, infectious diseases are not the exclusive domain of a primitive stage in the health transition, but rather a shifting component of every epidemiological pattern.

The concept that can best fit the notion of global health conditions is the ‘global transfer of health risks’, which occurs as a result of six basic processes: (1) the rise of global environmental threats; (2) the increasing movement of people; (3) the adoption of lifestyles; (4) the variance in environmental and occupational health and safety standards; (5) the trade in harmful legal and illegal products, and (6) the spread of medical technologies (Frenk *et al.* 1997: 1,405). At the heart of this concept lies the idea of the interdependence of the health of populations: the fact that many health problems spread mostly through processes created to support production, trade, and travel worldwide, and are common to developed and developing nations. Chen *et al.* (1996: 9) point to ‘an era of global “health interdependence”, the health parallel to economic interdependence’.

### *Global health response*

As mentioned above, during most of the twentieth century, the actors of traditional international health – a few multilateral health organisations, a handful of international foundations, and the health branches of commercial and military institutions of developed nations – considered international health needs as alien and, very frequently, as threats. Consistent with these ideas, international health activities were identified as aid and defence, and implemented through unilateral perspectives.

International health activities were also influenced by the idea that health needs in developing countries could be fully addressed through technological interventions (Gómez-Dantés 2001). The corollary was the definition of health priorities in purely medical terms and the inclusion in the international health agenda of only those health challenges that seemed to lend themselves to technical solutions. This reflected the 1950s and 1960s conviction that Western science, technology, and managerial abilities could, on their own, transform the developing world (Tendler 1975). A similar approach is prevalent among various global health initiatives. According to Judith Rodin (2007), the temptation to pin all hope on the latest technology is every bit as powerful as it was in the near past. The new global health should recognise that most challenges have strong behavioural, cultural, political, and economic determinants, which demand comprehensive and not only technological, approaches.

International health also placed excessive emphasis on vertical programmes devoted to control specific diseases and paid limited attention to health systems. Disease-oriented programmes are again dominating the health arena. As Laurie Garret (2007: 23) puts it: ‘HIV-positive mothers are given drugs to hold their infection at bay and prevent passage of the virus to their babies but still cannot obtain even the most rudimentary of obstetric and gynecological care or infant immunisations’. Furthermore, many of the patients that receive free antiretrovirals are cared for in clinics that have no physicians or nurses to guarantee their follow-up (Epstein and Chen 2002). We need ‘magic bullets’ it is true, but we also need ‘magic guns’ (Schellenberg 2005: 71), and those guns are health systems (Table 2.1).

The alternative, however, is not the classical ‘horizontal’ approach, which implies strengthening health systems without a clear sense of priorities, since in many developing countries this approach will end up catering mostly to the needs of the better off. The solution is a ‘diagonal’ approach, whereby explicit intervention priorities are used to drive improvements into the health system (Sepúlveda 2006: xv).

These priorities comprise all components of the *triple* burden of disease: first, the unfinished agenda of infections, malnutrition, and reproductive health problems; second, the emerging



challenges represented by non-communicable diseases and injury; and third, the health risks associated with globalisation, including the threat of pandemics like HIV and influenza, the health consequences of climate change, and the trade in harmful products like tobacco and other drugs.

First of all, there is a need for stronger cooperation with those countries that are lagging in the attainment of the health-related Millennium Development Goals (MDGs). At the same time, a process must get started to enhance those goals by defining clear targets around the growing burden of non-communicable diseases and injury. In particular, obesity, diabetes, and cardiovascular diseases must be met head-on, or health systems in developing countries and economies in transition will be overwhelmed. Finally, surveillance and response capabilities must be enhanced everywhere so that each country is better prepared to meet global threats, while contributing to the international coordination necessary to deal with them.

## **Production and reproduction of knowledge**

Having defined the conceptual foundations for the field of global health, it is necessary to develop the base for knowledge production (through research) and reproduction (through education). In accordance with the conceptual base, research and education must refer to the objects of analysis discussed earlier, namely, global health conditions and global health responses. Thus, the generation of knowledge and the education of human resources in this nascent field should focus on those conditions and interventions that go beyond country borders: the international transfer of health risks and the interventions designed to confront them.

The areas of application of global health include: (1) populations affected by global health problems (e.g., national populations affected by global health risks, migrants, displaced populations, victims of failed states, etc.); (2) problems related to the global transfer of health risks (pandemics, health impacts of global environmental threats, occupational health problems related to the exportation of occupational hazards, exportation of health products and services, etc.); and (3) national, bilateral, or multilateral interventions designed to deal with global health challenges (international epidemiological surveillance and response systems, programmes to prevent or control global health challenges, international occupational and environmental standards, etc.).

The comprehensiveness of global health problems and interventions requires the participation of the social sciences in this new academic field (Giovanni and Brownlee 1982). Among the social science disciplines, foreign relations and some related areas, such as political geography, international economy, and international law, should play major roles. It should be noted that this interdisciplinary collaboration represents a higher level of integration to the one already reached by public health, which brings together disciplines such as epidemiology, demography, biostatistics, life sciences, economics, sociology, administrative sciences, law, and ethics (Frenk *et al.* 1988).

Thus, global health becomes a meeting ground between the social sciences, including foreign relations, and the health sciences, especially those directly linked to public health. The body of knowledge and theoretical framework of foreign relations and its core disciplines provides the basis to explain the dynamics of the global society in relation to the economic, political, social, cultural, and ideological issues affecting the interactions among countries. Public health provides the theoretical, methodological, and technical elements to approach the study of the consequences of such interactions on the health status of the population, and on the organisation and functioning of health services.

## Utilisation of knowledge

Knowledge produced through research must be translated into evidence that can then be utilised by global health actors to mobilise resources, formulate policy, implement programmes, develop advocacy activities, respond to natural or artificial disasters, and evaluate impact. The weakness of this utilisation base accounts for the knowledge-action gap in global health. In order to bridge such a gap, it is necessary to develop a better institutional architecture for global health based on the functions that each actor should perform.

The actors of global health now include, in addition to the specialised agencies and programmes of the United Nations system, multilateral development banks, bilateral aid agencies, international NGOs, multinational private corporations, academic institutions, philanthropic entities, and a set of novel public/private alliances resulting in 'quasi-multilateral' organisations, notably the Global Alliance for Vaccines and Immunisation and the Global Fund to Fight Aids, Tuberculosis and Malaria.

This increasing pluralism is a positive reflection of the growing importance of health in the global agenda. However, until now, the broad variety of actors has not been able to develop an effective global health system with the capacity for coordinated action. The identification of the essential functions of global health should help us determine 'who should do what' and what kind of institutional arrangements are needed to achieve the shared goal of better health for all.

In order to meet global health challenges, the members of the global health community should use the knowledge and evidence developed in this field to perform two major functions: (1) management of global public goods and externalities; and (2) mobilisation of global solidarity (Jamison *et al.* 1998).

The functions for which global health actors are better suited than any individual country are those related to the production of global public goods and the management of externalities that transcend national borders.

Salient among the public goods that global health organisations should produce are: databases, information, research, and comparative analyses that can generate evidence to inform national policies and stimulate a process of shared learning among countries; harmonised norms and standards for national use; and consensus-building on initiatives which can help mobilise political will within countries. The Alma-Ata Declaration and several efforts to control communicable diseases are good examples of the latter.

Actions against international externalities include epidemiological surveillance activities. These activities require warning systems to anticipate possible health crises, monitoring mechanisms to identify future needs, and efforts to control specific health challenges that spread across borders, from drug-resistant microbial threats to pandemics.

In addition to producing public goods and managing externalities, global collective action should mobilise solidarity with countries that have acute or chronic development needs, exhibit important capacity limitations, or house vulnerable populations. The broad concept of solidarity, which would seem to be a more enlightened and less asymmetrical term than 'aid', encompasses three major sub-functions: development financing, technical cooperation, and humanitarian assistance. In this last respect, human rights arguments dictate that the global community can become an agent for the dispossessed and act to protect certain populations in a variety of circumstances, as in the case of failed states that are chronically incapable of meeting the basic security needs of their own populations. A clear case for global solidarity occurs when public health preparedness in a country is insufficient or is overwhelmed by natural or artificial disasters.

## Conclusions

Due to its links to security, sustainable development, and good governance, global health is occupying an increasingly visible space in the international agenda. This fact is associated with an expansion both of resources and initiatives directed to improve the health of populations worldwide. However, the large variation in the contents of these initiatives has created confusion as to what exactly the term 'global health' really means.

The efforts to define this term and establish the limits of the field that is being built around it have serious implications. First of all, they are crucial for those research centres interested in the production of knowledge on regional and global health problems, and on the interventions designed to confront them. Second, they are important to those academic institutions offering educational programmes in global health. Finally, they are vital for all bilateral, multilateral, and private organisations involved in activities that transcend national borders.

The gradual creation of a common language and an academic tradition for global health will undoubtedly help to mobilise additional resources, stimulate the production of new knowledge, improve educational programmes, clarify the functions and architecture of the global health system, generate consensus in the contents of the health agenda, determine the specific responsibilities of the actors of this field, and, most importantly, contribute to the improvement of the health of the world's population.

## References

- Brown, T.M., Cueto, M., and Fee, E. (2006) 'The World Health Organization and the Transition from International to Global Public Health', *American Journal of Public Health*, 96(1): 62–72.
- Chen, L., Bell, D. and Bates, L. (1996) 'World Health and Institutional Change', in *Pocantico Retreat: Enhancing the Performance of International Health Institutions*, Cambridge, MA: The Rockefeller Foundation, Social Science Research Council, Harvard School of Public Health: 9–21.
- Epstein, H. and Chen, L. (2002) 'Can AIDS be Stopped?', available at <http://www.nybooks.com/articles/15188> (accessed 21 August 2009).
- Fogarty International Center (2008) 'Framework Programs for Global Health 2005', available at <http://grants.nih.gov/grants/guide/pa-files/PA05-050.html> (accessed 21 August 2009).
- Frenk, J. (1993) 'The New Public Health', *Annual Review of Public Health*, 14: 469–89.
- Frenk, J. (2006) 'Bridging the Divide: Global Lessons from Evidence-based Health Policy in Mexico', *The Lancet*, 368: 954–61.
- Frenk, J. and Chacon, F. (1991) 'International Health in Transition', *Asia-Pacific Journal of Public Health*, 5(2): 170–5.
- Frenk, J., Bobadilla, J.L., Sepúlveda, J., Rosenthal, J. and Ruelas, E. (1988) 'A Conceptual Model for Public Health Research', *Bulletin of the PAHO*, 22(1): 60–71.
- Frenk, J., Sepúlveda, J., Gómez-Dantés, O., McGuinness, M.J., and Knaul, F. (1997) 'The Future of World Health: The New World Order and International Health', *British Medical Journal*, 314(7,091): 1,404–07.
- Garret, L. (2007) 'The Challenge of Global Health', *Foreign Affairs*, 86(1): 14–38.
- Giovanni, M. and Brownlee, A. (1982) 'The Contribution of Social Science to International Health Training', *Social Science and Medicine*, 16: 957–64.
- Godue, C. (ed.) (1992) 'International Health and Schools of Public Health in the United States', in *International Health: A North-South Debate*, Washington, DC: Pan American Health Organisation: 113–26.
- Gómez-Dantés, O. (2001) 'Health', in P.J. Simmons and C. De Jonge-Oudraat (eds) *Managing Global Issues: Lessons Learned*, Washington, DC: Carnegie Endowment for International Peace: 392–423.
- Institute of Medicine (2008) 'The U.S. Commitment to Global Health: Recommendations for the New Administration', available at [www.iom.edu/CMS/3783/51303/60714.aspx](http://www.iom.edu/CMS/3783/51303/60714.aspx) (accessed 20 August 2009).
- Jamison, D., Frenk, J., and Knaul, F. (1998) 'International Collective Action in Health: Objectives, Functions, and Rationale', *The Lancet*, 351: 514–17.

- Koplan, J., Bond, C.T., Merson, M.H., Reddy, K.S., Rodríguez, M.H., Sewankambo, N.K., and Wasserheit, J.N. (2009) 'Towards a Common Definition of Global Health', *The Lancet*, 373: 1,993–5.
- Rodin, J. (2007) 'Navigating the Global American South: Global Health and Regional Solutions', plenary address presented at the University of North Carolina Center for Global Initiatives, Chapel Hill, 19 April.
- Schellenberg, D. cited in M. Specter (2005) 'What Money can Buy', *The New Yorker*, 24 October: 57–71.
- Sepúlveda, J. (2006) 'Foreword', in D.T. Jamison, J.G. Breman, A. Measham, G. Alleyne, M. Claeson, D.B. Evans, P. Jha, A. Mills, and P. Musgrove (eds) (2006) *Disease Control Priorities in Developing Countries*, Washington, DC: Oxford University Press: xiii–xv.
- Tendler, J. (1975) *Inside Foreign Aid*, Baltimore, MD: Johns Hopkins University Press.
- Wilkinson, L. and Power, H. cited in S.B. MacFarlane, M. Jacobs, and E.E. Kaaya (2008) 'In the Name of Global Health: Trends in Academic Institutions', *Public Health Policy*, 29(4): 383–401.
- WHO (World Health Organization) (2008) *The Global Burden of Disease: 2004 Update*, Geneva: WHO: 40.

# The World Health Organization and the World of Global Health

*Theodore M. Brown and Marcos Cueto*

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Over the half century from 1948 to 1998, the World Health Organization (WHO) slipped from a commanding position as the unquestioned leader of international health to a much-diminished role in the crowded and contested world of global health. WHO began at a time of high idealism and heightened internationalist expectations, when visionary leaders saw the new organisation as the best hope for both health and peace in the post-war world (Fosdick 1944). That vision was glimpsed again at Alma-Ata in 1978, yet despite the dreams of many of its founders and early supporters, WHO was marked from its early days by political and diplomatic entanglements and budgetary constraints that, over five decades, compromised the organisation and restricted its operating capacity. Indeed, those entanglements and constraints eventually pushed WHO in the 1990s to try to reinvent itself as a coordinator of global health in a world with many new and powerful players.

The idea of a permanent, intergovernmental organisation for international health can be traced back to the creation in 1902 of the International Sanitary Office of the American Republics, which, some decades later, became the Pan American Health Organization (Cueto 2007a). Two European-based international health agencies also played critical historical roles. One was the Office Internationale d'Hygiène Publique (OIHP), which formally started functioning in Paris in 1907 and concentrated on the administration of negotiated international sanitary conventions and the exchange of information on reportable diseases (Abt 1933; Aykroyd 1968). The second agency, the League of Nations Health Organization (LNHO), began its work in 1920 (Balinska 1995; Dubin 1995). This organisation established its headquarters in Geneva, and over the course of the next decade and a half took on an increasingly ambitious range of activities (Borowy 2009; Weindling 2002). Although the LNHO was poorly budgeted by the League of Nations and faced opposition from some national health ministries and the OIHP, it received substantial support from the Rockefeller Foundation and was able to play an important and sometimes inspirational role in the inter-war period (Howard-Jones 1978; Weindling 1997). Both the OIHP and the LNHO survived through the Second World War, though barely, and were present at the critical post-war moment when the future of international health was defined (Borowy 2008).

WHO was planned and made operational by a series of international commissions which, working from 1946 to 1948 on a mandate voted in 1945 at the founding of the United Nations (UN), thrashed out a scope of work and basic administrative procedures (Goodman 1952). Country representatives were joined in this process by representatives of the Pan American Sanitary Bureau, OIHP, LNHO, and, until January 1947, of a well-funded and extremely powerful organisation new to the wartime and post-war 1940s, the UN Relief and Rehabilitation Administration (UNRRA), established in November 1943 (Sawyer 1947). For a brief few years, UNRRA played a crucial emergency role, working with a budget largely provided by the United States (US) and its the Second World War allies that far eclipsed the total resources of all other international health agencies. The first World Health Assembly convened in Geneva, Switzerland, in June 1948 and created the World Health Organization as a specialised agency of the UN, into which were formally merged the functions of OIHP, LNHO, and UNRRA. The Pan American Sanitary Bureau – then headed by former Rockefeller Foundation official Fred L. Soper – was allowed to retain semi-autonomous status as part of a regionalisation scheme, seen by many as forced upon WHO by the United States, that in the following years grew to a total of six WHO regional offices (in Africa, Europe, the Americas, south-east Asia, the eastern Mediterranean, and the western Pacific) (Howard-Jones 1981; Siddiqi 1995). The founding of WHO spanned post-war idealism and the hardening of the Cold War. Idealism was reflected in the preamble to its constitution (1948), in which health was defined as ‘a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity’ (WHO 2006: 1).

The first director-general of WHO, Canadian psychiatrist George Brock Chisholm, tried to maintain these broad global ideals. But he was frustrated at almost every turn by the intrusion of the national self-interest of WHO’s member countries, and especially by the rapidly intensifying politics of the Cold War (Farley 2008). The US played a contradictory role: on the one hand, it publicly supported the UN system and its broad worldwide goals and funded a significant portion of its budget, but on the other, it was insistent on its right to intervene unilaterally in the Americas and often elsewhere in the name of national security. As a main contributor to the WHO budget, the US threw around a lot of health policy weight.

As an intergovernmental agency, WHO was well-tuned to the larger political environment. The politics of the Cold War had an unmistakable impact on its policies and personnel. Thus, when the Soviet Union and other communist countries walked out of the UN system and, therefore, out of WHO in 1949, the US and its allies were easily able to exert a dominating influence. In 1953, Brock Chisholm, who had often testy relations with the US, completed his term as director-general and was replaced by the far more US-friendly Brazilian, Marcolino Candau. Candau had worked under Soper on malaria control in Brazil and was associated with the ‘vertical’ disease control programmes of the Rockefeller Foundation and their adoption by the Pan American Sanitary Bureau when Soper moved to that agency as director (Anonymous 1983). Candau would be director-general of WHO for over 20 years. During the period between 1949 and 1957 (when the Soviet Union returned to the UN and WHO), WHO was very closely allied with US interests.

In 1955, Candau was charged with overseeing WHO’s campaign of malaria eradication, approved that year by the World Health Assembly. The ambitious goal of malaria eradication had been conceived and promoted in the context of unexamined optimism about the ability of DDT indoor spraying to kill mosquitoes, and of new anti-malarial drugs to kill or neutralise the *Plasmodium* parasite. WHO’s malaria eradication programme was eagerly supported by another UN agency, UNICEF, and by the US State Department. The latter convinced the US Congress to fund the programme at a level of several million dollars (Cueto 2007b). Malaria eradication

advocates concentrated on the growing awareness of mosquito resistance to DDT, arguing that only a comprehensive and relatively quick campaign would eliminate malaria before it spread all over the world.

As Randall Packard has shown, the US and its allies also believed that global malaria eradication could not only be achieved, but would usher in economic growth and create expanded overseas markets for US technology and manufactured goods (Packard 1997, 1998). Eradication efforts would also help win 'hearts and minds' in the battle against communism. The campaign reproduced the development strategies of the time by importing technologies brought in from outside while making no attempt to enlist the participation of local populations in planning or implementation (Packard and Brown 1997). This model of development assistance fitted neatly into US Cold War efforts to promote 'modernisation' with limited social reform.

But when the Soviet Union and other communist countries returned to WHO in the late 1950s, they made their presence felt almost immediately. The Soviet representative to the 11<sup>th</sup> World Health Assembly (1958), Viktor Zhdanov, was the deputy minister of health of the USSR, who argued that it was now scientifically feasible and economically desirable to attempt to eradicate smallpox worldwide (Fenner *et al.* 1988). The USSR obviously wanted to challenge US influence and make its own mark on world health policy. In 1959, the Assembly committed WHO to a global smallpox eradication programme (SEP), for which the USSR promised to provide 25 million doses of freeze-dried vaccine. Recognising the shifting balance in the World Health Assembly, director-general Candau felt the need to accommodate to changing political realities by backing WHO's smallpox eradication efforts. Yet for several years, WHO's smallpox programme remained modest and minimal while the US-backed malaria eradication programme lumbered forward on a much larger scale (Fenner *et al.* 1988). During the 1960s, however, malaria eradication encountered major difficulties in the field that ultimately led to colossal and embarrassing failures. In 1969, the World Health Assembly declared that it was not feasible to eradicate malaria in many parts of the world and began a process of returning once again to a malaria control agenda, while the SEP went forward on an expanded scale.

As the latter programme grew, smallpox eradication gained considerable momentum from technical improvements – jet injectors and bifurcated needles – which made the process of vaccination cheaper, easier, and more effective. Even more importantly, the US's interest in smallpox eradication sharply increased for foreign policy reasons (Manela 2010). The US did not want the USSR to gain unchallenged recognition for its global eradication efforts and thus felt the need to compete on the WHO stage. More positively, too, after a period of intensified tension in the early 1960s, both countries had begun to explore a more relaxed and collaborative *détente* phase of Cold War relations (Garthoff 1994). In 1965, the US pledged its support for a WHO-led programme to eradicate smallpox worldwide (Fenner *et al.* 1988). Candau was reluctant to commit WHO to a new US-endorsed global eradication campaign that might lead to another embarrassing failure, so insisted on US leadership to bear the blame if necessary (Henderson 1998a). At first disappointed that a Russian was not selected, the USSR agreed to the American choice of D. A. Henderson as head of the smallpox campaign, after deciding that he was both a good scientist and a person with whom they could work.

Thus began WHO's stunningly successful intensified smallpox eradication campaign built on US–USSR collaboration and later celebrated as a major 'cold war victory'. Henderson was an experienced and effective administrator who now proved himself also a masterful diplomat. He worked intimately and effectively with his Soviet counterparts to obtain the resources and personnel the programme needed, to smooth out problems when they inevitably occurred, and even to orchestrate diplomatic pressure to secure the cooperation of certain recalcitrant

countries (Henderson 1987, 1998a). A good deal of his success depended on a de facto geopolitical understanding that the US would work primarily in Africa while the Soviet Union lent its major support to the Central Asian republics and the Indian subcontinent (Fenner *et al.* 1988). Even after Henderson left the programme and US–USSR tensions increased again in the late 1970s, WHO was able to bring the smallpox eradication programme to a successful conclusion (Fenner *et al.* 1988).

During the 1960s and 1970s, other major international events beyond US–USSR détente also influenced the course of WHO’s history. These included the emergence of decolonised African nations, the spread of nationalist and socialist movements, and the dissemination of new theories of development that emphasised long-term socio-economic growth rather than short-term technological intervention. Rallying in organisations such as the Non-Aligned Movement, developing countries argued vigorously for fairer terms of trade and the more generous financing of development (Bhagwati 1977; Rothstein 1979). This changing political environment was reflected in corresponding shifts within WHO. In the 1960s, WHO acknowledged that a strengthened health infrastructure was a prerequisite to the success of its eradication and control programmes, especially in Africa. In 1968, Candau called for a comprehensive and integrated approach to curative and preventive care services. Soviet representatives called for the study of organisational methods for promoting basic health services (Litsios 2002). In January 1971, the executive board agreed to undertake an internal study, and the results of this study were presented to the full executive board in 1973 (WHO 1972, 1973). WHO was beginning to move from an older model of health service to what would become the ‘primary health care’ approach (Litsios 2002, 2004). The new model drew upon the thinking and experiences of non-governmental organisations (NGOs) and medical missionaries working in Africa, Asia, and Latin America at the grass-roots level. It also gained saliency from China’s re-entry into the UN in 1973 and the widespread interest in Chinese ‘barefoot doctors’, who were reported to be transforming rural health conditions. These experiences underscored the urgency of a ‘primary health care’ perspective that included the training of community health workers, an emphasis on the creation of health outposts in underserved areas, and the tackling of basic economic and environmental problems (Bryant 1969; Newell 1975; Taylor 1976).

These new tendencies were embodied by Halfdan T. Mahler, a Dane, who served as WHO’s director-general from 1973 to 1988. In 1975, the World Health Assembly reinforced the trend, declaring the construction of national programmes in primary care an urgent matter. In the World Health Assembly the following year, Mahler proposed the goal of ‘Health for All by the Year 2000’. This slogan became an integral part of the primary health care movement. Mahler agreed to hold a major conference on the organisation of health services at Alma-Ata in the Soviet Union and to co-organise it with UNICEF. He was initially reluctant because he distrusted the Soviet Union’s highly centralised and medicalised approach to the provision of health services (Litsios 2002). And although the Soviet Union succeeded in having the conference on its territory, the results reflected Mahler’s views much more closely than it did those of the Soviets. The Alma-Ata Declaration of 1978 and the goal of ‘Health for All in the Year 2000’ advocated an inter-sectorial and multi-dimensional approach to health and socio-economic development, emphasised the use of ‘appropriate’ as opposed to excessive technology, and urged active community participation in health care and health education at every level (WHO 1978).

WHO now enjoyed considerable authority and esteem. Its smallpox eradication programme was in the final stages of successful completion, and Alma-Ata had added a sweeping vision and broad moral authority to WHO’s reputation. But this peak also marked the high point from which decline rapidly set in. Some tried to strategise for the next disease eradication campaign



by naïvely imagining it as a simple vertical assault, despite Henderson's strenuous objections (Henderson 1998b). Even more disturbingly, a number of governments, agencies, and influential individuals saw WHO's view of primary health care as overly idealistic, unrealistic, and unattainable (Henderson 1980; Tejada de Rivero 2003). The process of reducing Alma-Ata's idealism to a practical set of technical interventions that could be implemented more easily and assessed concretely began in 1979 at a small conference with a heavy US flavour held in Bellagio, Italy, and sponsored by the Rockefeller Foundation. Those in attendance included the president of the World Bank, the vice-president of the Ford Foundation, the administrator of USAID, and the new executive secretary of UNICEF (Black 1986, 1996). The Bellagio meeting focused on an alternative concept to that articulated at Alma-Ata – selective primary health care – which was built on the notion of pragmatic, low-cost interventions that were limited in scope and easy to monitor and evaluate. Pushed heavily by UNICEF, selective primary health care was soon operationalised under the acronym 'GOBI' (Growth monitoring to fight malnutrition in children, Oral rehydration techniques to defeat diarrhoeal diseases, Breastfeeding to protect children, and Immunisations) (Cueto 2004; UNICEF 1983).

In the 1980s, WHO also had to reckon with the rapidly growing influence of the World Bank. The Bank had initially been formed in 1946 to assist in the reconstruction of Europe and later expanded its mandate to provide loans, grants, and technical assistance to developing countries. At first, it funded large investments in physical capital and infrastructure, but then, in the 1970s, it began to invest in population control, health, and education, with the emphasis on population control (Ruger 2005). The World Bank approved its first loan for family planning in 1970. In 1979, the Bank created a population, health, and nutrition department and adopted a policy of funding both stand-alone health programmes and health components of other projects.

In its 1980 World Development Report, the Bank argued that both malnutrition and ill-health could be addressed by direct action with Bank assistance (World Bank 1980). It also suggested that improving health and nutrition could accelerate economic growth, thus providing a good argument for social sector spending. As the Bank began to make direct loans for health services, it called for the more 'efficient' use of available resources and discussed the roles of the private and public sectors in financing health care. Pushing a neo-liberal agenda that by the early 1980s the Bank and the International Monetary Fund had fully embraced, the Bank strongly promoted free markets and a diminished role for national governments (Harvey 2005; World Bank 1987). In the context of widespread developing-country indebtedness and increasingly scarce resources for health expenditures, the World Bank's insistence on 'structural adjustment' measures to fulfil the terms of its loans at the very time that the HIV/AIDS epidemic erupted drew angry criticism but also underscored the Bank's new influence.

In contrast to the World Bank's increasing authority, in the 1980s the prestige of the WHO was beginning to diminish. One sign of trouble was the 1982 vote by the World Health Assembly to freeze WHO's budget (Godlee 1994a). This was followed by the 1985 decision by the US to pay only 20 per cent of its assessed contribution to all UN agencies and to withhold its contribution to WHO's regular budget, in part as a protest against WHO's 'essential drug program', which was opposed by leading US-based pharmaceutical companies (Godlee 1994b). These events occurred amid growing tensions between WHO and UNICEF and other agencies, and the controversy over selective versus comprehensive primary health care. As part of a rancorous public debate conducted in the pages of *Social Science & Medicine* in 1988, Kenneth Newell, a highly placed WHO official and an architect of comprehensive primary health care, called selective primary health care a 'threat ... [that] can be thought of as a counter-revolution' (Newell 1988: 906).

Another symptom of WHO's problems in the late 1980s was the growth of extra-budgetary funding. As Gill Walt of the London School of Hygiene and Tropical Medicine noted, there was a crucial shift from predominant reliance on WHO's 'regular budget' – drawn from member states' contributions, based on population size and GNP – to greatly increased dependence on 'extra-budgetary' funding coming from donations by multilateral agencies or 'donor' nations (1993). By 1986–87, extra-budgetary funds of \$437 million had almost caught up with the regular budget of \$543 million. By the beginning of the 1990s, extra-budgetary funding had overtaken the regular budget by \$21 million, thus contributing 54 per cent of WHO's overall budget. Major problems for the organisation followed from this budgetary shift. Priorities and policies were still ostensibly set by the World Health Assembly, which was made up of all member nations, but this Assembly, now dominated numerically by poor and developing countries, had authority only over the regular budget, which had been frozen since the early 1980s. Wealthy donor nations and multilateral agencies like the World Bank could largely call the shots on the use of the extra-budgetary funds they contributed. They thus created, in effect, a series of 'vertical' programmes more or less independent of the rest of the WHO's programmes and its decision-making structure. The dilemma for the organisation was that although the extra-budgetary funds added to the overall budget, 'they increase difficulties of coordination and continuity, cause unpredictability in finance, and a great deal of dependence on the satisfaction of particular donors' (Walt 1993: 129).

The growth of extra-budgetary funds and the embrace of selective primary health care resulted in some successful cases of disease control and new alliances between multinational agencies, NGOs, and the private sector. Two examples were the eradication of polio from the Americas and the control of onchocerciasis in Africa. In 1988, WHO and other multilateral agencies launched a campaign to eradicate polio by the year 2000, at a time when fewer than 50 per cent of the world's children were receiving the recommended three doses of oral polio vaccine. An important private partner, Rotary International, raised funds, provided a network of volunteers, and ensured political support for the 'Polio Plus' initiative. Polio Plus was instrumental in setting guidelines and vaccination schedules, organising national vaccination days, and using modern refrigeration systems (the cold chain) to preserve the vaccine's potency (Seytre and Shaffer 2005). Thanks to these activities, polio essentially disappeared from the Americas by 1991.

During the 1980s, onchocerciasis, a filarial disease causing wrinkling and depigmentation of the skin, eye lesions, and blindness, was brought under control thanks to WHO's Onchocerciasis Control Programme (OCP) in West and Central Africa (WHO 1985a). When OCP began its work, about one million individuals were suffering from onchocerciasis, and at least 100,000 persons were blind. OCP concentrated its work in seven countries of the savannah zone, covering an area of 640,000 square kilometres, and established its headquarters in the Upper Volta (WHO 1976). Partners in OCP were bilateral agencies in several industrial countries, the UN Development Programme, the World Bank, the Food and Agriculture Organization, and the Special Programme for Research and Training in Tropical Diseases (TDR), hosted at WHO. TDR's main goal was to identify new drugs for 'neglected' infectious diseases in poor nations (Morel 2000). Thanks to this broad partnership, the funding of OCP was significant.

Ebrahim M. Samba, a physician from Gambia, was appointed director of the OCP in 1980. In an unprecedented move, Samba travelled to the US and convinced Merck, Sharp & Dohme, which had developed and marketed ivermectin, an effective microfilaricide with few side effects, to provide the drug free of charge (Aziz *et al.* 1982). In addition, OCP used larvicides to destroy black fly vectors and produce a new biodegradable insecticide with no toxic effects for mammals and fish. By the late 1980s, it was estimated that 27,000 individuals were saved from

going blind and about 3 million children born within the OCP programme area since the start of operations were safe from onchocerciasis (WHO 1985b).

Despite these successes, from the late 1980s to the late 1990s, WHO struggled through the most difficult decade in its history. A decline in operating budget, competition with new organisations for the leadership of international health, and confrontation with the governments of industrialised countries critical of the UN eroded the agency's former leadership position and created the perception that WHO was obsolete. This period coincided with Dr Hiroshi Nakajima's two terms as director-general (1988–98). Nakajima's critics blamed him for not doing enough to defend primary health care, for being incapable of adapting to new epidemiological and political realities, and for slowing the pace of institutional reform.

Particularly bitter criticism swirled around Nakajima because of his difficult relationship with Jonathan Mann, the controversial early leader in the fight against AIDS. Initially, WHO gave the disease low priority. Some changes occurred in 1985, when WHO co-sponsored the first international conference on AIDS in Atlanta, and in 1986 when the 39<sup>th</sup> World Health Assembly approved the creation of an AIDS programme within WHO. In February of the following year, the American physician Jonathan Mann became head of the Global Programme on AIDS (GPA) (Anonymous 1986). By the end of 1987, GPA was working with more than 90 countries, sending technical support missions to help design national AIDS programmes. In a 1987 briefing to the UN General Assembly, Mann sounded the alarm about the magnitude of the AIDS pandemic, and the danger of responses inspired by fear and discrimination. He argued that public health and human rights were fully compatible and that repressive policies endangered rather than protected public health (Altman 1987; Lewis 1987). Thus, in a short time, Mann was able to build GPA into the strongest and best-funded programme within WHO.

But Nakajima felt uncomfortable with the celebrity Mann enjoyed, the considerable independence with which he operated, and his expansive views on the importance of human rights for health. Nakajima also believed that the GPA had too much money and visibility and that attention needed to be paid to other diseases such as malaria and tuberculosis (Oestrich 2007). A study of all extra-budgetary funds for 1992 indicated that the GPA commanded over 25 per cent of these resources (Beigbeder 1998). Nakajima began to tighten control over Mann and restrict the operations of the GPA. In March 1990, after a series of angry exchanges in European newspapers, Mann resigned, citing his 'major disagreements' with the director-general. The US and many other industrial countries considered the event a major blow to the global campaign against AIDS and a black mark against Nakajima (Crosette 1997). The net result was that WHO lost its initial position in the world's response to AIDS, and the agency that emerged as the new multilateral leader was the UN Programme on HIV/AIDS (UNAIDS), created in the mid-1990s and outside the control of WHO.

In the mid-1990s, Fiona Godlee published a series of articles vigorously critical of WHO and its current leadership (Godlee 1994a, 1994b, 1995), and concluded with this dire assessment going well beyond WHO's bungled response to AIDS: 'WHO is caught in a cycle of decline, with donors expressing their lack of faith in its central management by placing funds outside the management's control. This has prevented WHO from [developing] ... integrated responses to countries' long-term needs' (Godlee 1995: 182). As WHO lost credibility, the World Bank moved confidently into the vacuum. WHO officials were unable or unwilling to respond to the new international health economy structured around the Bank's neo-liberal approaches (Brown 1993 1997; Zwi 2000). The Bank maintained that, not only in the case of AIDS but more generally, existing health systems were often wasteful, inefficient, and ineffective, and argued in favour of greater reliance on the private sector with the corresponding reduction of public involvement in the delivery of health services (World Bank 1987).

Controversies surrounded the Bank's policies and practices, yet there was no doubt that it had become a dominant force in international health. The Bank's greatest comparative advantage lay in its ability to mobilise large financial resources; by 1990, the Bank's loans for health surpassed the total budget of WHO, and by the end of 1996, the Bank's cumulative lending portfolio in health, nutrition, and population had reached \$13.5 billion. Yet the Bank recognised that, whereas it had great economic strength and influence, WHO still had considerable technical expertise in matters of health. This was clearly reflected in the Bank's widely influential 1993 World Development Report, 'Investing in Health', which gives credit to WHO, 'a full partner with the World Bank at every stage in the preparation of the Report' (World Bank 1993: iii–iv). Circumstances suggested that it was to the advantage of both parties for the Bank and WHO to work together.

This is the context in which WHO began to refashion itself as a coordinator, strategic planner, and leader of 'global health' initiatives. In January 1992, the 31-member executive board of the World Health Assembly decided to appoint a working group to recommend how WHO could be most effective in international health work in the light of the global change overtaking the world. The executive board may have been responding, in part, to the Children's Vaccine Initiative, perceived within WHO as an attempted coup by UNICEF, the World Bank, the UN Development Programme (UNDP), the Rockefeller Foundation, and several other players, who were seeking to wrest control of vaccine development (Muraskin 1998). The working group's final report of May 1993 recommended that WHO – if it were to maintain leadership of the health sector – must overhaul its fragmented management of global, regional, and country programmes, diminish competition between regular and extra-budgetary initiatives, and above all, increase the emphasis within WHO on global health issues and WHO's coordinating role in that domain (Stenson and Sterky 1994).

In 1998, the World Health Assembly reached outside the ranks of WHO for a leader who could restore credibility to the organisation and provide it with a new vision – to Gro Harlem Brundtland, a former prime minister of Norway and a physician and public health professional who brought formidable expertise to the task. In the 1980s, she had been chair of the UN World Commission on Environment and Development and had produced the 'Brundtland Report', which led to the Earth Summit of 1992. She was familiar with the global thinking of the environmental movement and had a broad and clear understanding of the links between health, environment, and development (McMichael *et al.* 1996; McMichael and Haines 1997).

Brundtland was determined to position WHO as an important player on the global stage, to move beyond ministries of health and gain a seat at the table when decisions were being made (Kickbusch 2000). She wanted to refashion WHO as a 'department of consequence' able to monitor and influence other actors on the global scene (Kickbusch 2000: 985). Brundtland established a Commission on Macroeconomics and Health, chaired by the economist Jeffrey Sachs, then of Harvard University, and including former ministers of finance, and officers from the World Bank, the International Monetary Fund, the World Trade Organization and the UNDP, as well as public health leaders. The Commission issued a report in 2001, which was criticised by many for condoning the global status quo, but which won praise from some because it drew attention to the argument that improving health in developing countries was essential to their economic development (Commission on Macroeconomics and Health 2001; Mills *et al.* 2002; Waitzkin 2003).

Brundtland also began to strengthen the WHO's financial position, largely by organising 'global partnerships' and 'global funds' to bring together 'stakeholders' – private donors, governments, and bilateral and multilateral agencies – to concentrate on specific targets (for

example, Roll Back Malaria in 1998, GAVI in 1999, and Stop TB in 2001). These were semi-autonomous programmes bringing in substantial outside funding, often in the form of public/private partnerships (Buse and Walt 2001; Reid and Pearce 2003; Widdus 2001). A very significant player in these 'PPPs' was the Bill & Melinda Gates Foundation, which committed more than \$1.7 billion between 1998 and 2000 to an international programme to prevent or eliminate diseases in the world's poorest nations, primarily through vaccines and immunisation programmes (McCarthy 2000). In 2002, the Gates Foundation donated \$2.8 billion, \$750 million of which went to GAVI (Maciocco 2008). But with the multiplication of PPPs came the multiplication of partners – Roll Back Malaria alone had more than 90 – which meant that leadership, management, and governance in global health had become extraordinarily complicated and confused (Yamey 2002c).

Brundtland's tenure as director-general drew other criticisms, as well. Some looked with considerable scepticism at her worrisome bias towards the private sector and, particularly, the seeming favouritism of the pharmaceutical industry in the Commission on Macroeconomics and Health and the PPPs (Katz 2005; Motchane 2002; Richter 2004). Some have claimed that other urgent issues did not receive sufficient attention (health promotion, health and human rights, and social and economic restructuring to achieve health improvement) (Mittelmark 2001). Still others were frustrated by the director-general's non-inclusive administrative style, the WHO's poor staff morale, and the large gap between the rhetoric of transformation and the realities of institutional inertia (Yamey 2002a, 2002b). Nonetheless, few disputed the assertion that Brundtland succeeded in achieving her principal objective, which was to reposition WHO or, at least, begin to reposition it as a credible contributor to the rapidly changing field of global health (Aitken 2003; Horton 2002).

Yet rapid and dramatic changes over which Brundtland had little control continued during her term as director-general and in the years following. Perhaps most notable was the emergence of the G8 nations (France, the US, the UK, Germany, Italy, Japan, Canada, and the Russian Federation) as a major collective force in global health. Health first became an important agenda item for summit meetings under French and US leadership in the late 1990s, when the focus was primarily diseases that affected the member nations themselves (Kirton *et al.* 2007). But when the Russian Federation became a full member, the G8 began to focus on HIV/AIDS. By 2000 the scope of health concern widened to include tuberculosis and malaria, and the G8 began to push for the creation of the 'Global Fund to Fight AIDS, Tuberculosis and Malaria', which was officially established in 2002 (The Global Fund to Fight AIDS, Tuberculosis and Malaria 2009; Labonte and Schrecker 2004). Since then the G8 has met regularly with African leaders, widened its agenda to include support for the health-related Millennium Development Goals, and broadened its approach still further to include health system strengthening (especially in developing nations) and maternal, newborn, and child health (Reich and Takemi 2009).

At recent G8 summits, increasing attention has been devoted to the reports and recommendations of a specially constituted G8 health experts group (G8 Health Experts Group 2008). But the G8 has also been listening to a group newly formed in July 2007 and calling itself the 'H8' (Health 8) – a self-appointed collaborative comprised of representatives from GAVI, the Global Fund, UNAIDS, the United Nations Population Fund (UNFPA), UNICEF, the World Bank, the Bill & Melinda Gates Foundation, and WHO (Reich and Takemi 2009; World Health Organization 2007). What is most notable about the H8 thus far is the World Bank's acknowledgement that its financing is becoming a smaller proportion of global health funds overall and WHO's new assertiveness in articulating a leadership role (Reich and Takemi 2009). WHO is only one of eight in the H8, but it is clearly jostling for recognition and authority as the global health leader with new energy and some success.

We thus return briefly to the issue with which this chapter began: what is WHO's role in 'global health'? The basic answer derives from the fact that WHO has had to work very hard to reinvent itself in order to maintain its authority in a new world that had initially bypassed it and declared it irrelevant. It had to find and keep a place on the rapidly evolving agenda it did not set and for which other, larger forces and stronger organisations were primarily responsible. But once in the mix, WHO contributed significantly to the dissemination of the new concepts and vocabulary of 'global health' and in that process gained recognition for what the organisation identified as a coordinating and leadership role (Yach and Bettcher 1998). Now many outside the organisation also promote this role for WHO, which suggests a brighter future on the basis of re-emerging legal, moral, and technical authority (Garrett 2007; Kickbusch 2000; Taylor 2002, 2004). Whether WHO's organisational repositioning will succeed in re-establishing it as the acknowledged steward of the health of the world's population remains an open question at this time.

## References

- Abt, G. (1933) *Vingt-Cinq Ans d'Activité de l'Office Internationale d'Hygiène Publique 1909–1933*, Paris: L'Office Internationale d'Hygiène Publique.
- Aitken, D. (2003) 'WHO Responds', *British Medical Journal*, 326: 217–18.
- Altman, L.K. (1987) 'Key World Health Official Warns of Epidemic of Prejudice on AIDS', *New York Times*, 3 June.
- Anonymous (1983) 'In Memory of Sr. M.G. Candau', *WHO Chronicle*, 37: 144–7.
- Anonymous (1986) 'WHO's Efforts to Contain AIDS', *The Lancet*, 1: 1,167.
- Aykroyd, W.R. (1968) 'International Health: A Retrospective Memoir', *Perspectives in Biology and Medicine*, 11: 273–85.
- Aziz, M.A., S. Diallo, I.M. Diop, M. Lariviere, and M. Porta (1982) 'Efficacy and Tolerance of Ivermectin in Human Onchocerciasis', *The Lancet*, 2: 171–3.
- Balinska, M.A. (1995) 'Assistance and Not Mere Relief: The Epidemic Commission of the League of Nations, 1920–1923', in P. Weindling (ed.) *International Health Organisations and Movements, 1918–1939*, Cambridge: Cambridge University Press: 81–108.
- Beigbeder, Y. (1998) *The World Health Organisation*, Dordrecht: Martinus Nijhoff.
- Bhagwati, J.N. (ed.) (1977) *The New International Economic Order: The North South Debate*, Cambridge, MA: MIT Press.
- Black, M. (1986) *The Children and the Nations: The Story of UNICEF*, New York: UNICEF.
- Black, M. (1996) *Children First: The Story of UNICEF, Past and Present*, Oxford: Oxford University Press.
- Borowy, I. (2008) 'Manoeuvring for Space: International Health Work of the League of Nations during World War II', in S.G. Solomon, L. Murard, and P. Zylberman (eds) *Shifting Boundaries of Public Health: Europe in the Twentieth Century*, Rochester, NY: University of Rochester Press.
- Borowy, I. (2009) *Coming to Terms with World Health: The League of Nations Health Organisation 1921–1946*, Frankfurt am Main: Peter Lang.
- Brown, P. (1993) 'Editorial: World Bank's Cure for Donor Fatigue', *The Lancet*, 342: 63–4.
- Brown, P. (1997) 'The WHO Strikes Mid-life Crisis', *New Scientist*, 153: 12.
- Bryant, J.H. (1969) *Health and the Developing World*, Ithaca, NY: Cornell University Press.
- Buse, K. and Walt, G. (2000) 'Global Public-private Partnerships: Part I—A New Development in Health?', *Bulletin of the World Health Organisation*, 78: 549–61.
- Commission on Macroeconomics and Health (2001) *Macroeconomics and Health: Investing in Health for Economic Development*, Geneva: World Health Organization.
- Crosette, B. (1997) 'UN Health Official Opposed by US Won't Seek Re-election', *New York Times*, 30 April.
- Cueto, M. (2004) 'The Origins of Primary Health Care and Selective Primary Health Care', *American Journal of Public Health*, 94: 1864–74.
- Cueto, M. (2007a) *The Value of Health: A History of the Pan American Health Organization*, Washington, DC: Pan American Health Organization.
- Cueto, M. (2007b) *Cold Wars, Deadly Fevers: Malaria Eradication in Mexico 1955–1975*, Baltimore, MD: Johns Hopkins University Press.

- Dubin, M.D. (1995) 'The League of Nations Health Organisation', in P. Weindling (ed.) *International Health Organisations and Movements, 1918–1939*, Cambridge: Cambridge University Press.
- Farley, J. (2008) *Brock Chisholm, the World Health Organisation, and the Cold War*, Vancouver: University of British Columbia Press.
- Fenner, F., D.A. Henderson, I. Arita, Z. Jezek, and I.D. Ladnyi (1988) *Smallpox and Its Eradication*, Geneva: World Health Organization.
- Fosdick, R.B. (1944) 'Public Health as an International Problem', *American Journal of Public Health*: 1133–8.
- G8 Health Experts Group (2008) 'Toyako Framework for Action on Global Health', available at <http://www.g8.utoronto.ca/summit/2008hokkaido/2008-healthexperts.pdf> (accessed 15 October 2009).
- Garrett, L. (2007) 'The Challenge of Global Health', *Foreign Affairs*, 86: 14.
- Garthoff, R.L. (1994) *Détente and Confrontation: American-Soviet Relations from Nixon to Reagan*, Washington, DC: Brookings Institution Press.
- Godlee, F. (1994a) 'WHO in Crisis', *British Medical Journal*, 309: 1,424–8.
- Godlee, F. (1994b) 'WHO in Retreat: Is It Losing its Influence?', *British Medical Journal*, 309: 1,491–5.
- Godlee, F. (1995) 'WHO's Special Programmes: Undermining from Above', *British Medical Journal*, 310: 178–82.
- Goodman, N.M. (1952) *International Health Organisations and Their Work*, London: J&A Churchill Ltd.
- Harvey, D. (2005) *A Brief History of Neoliberalism*, New York: Oxford University Press.
- Henderson, D.A. (1980) 'Smallpox Eradication', *Public Health Reports*, 95: 426.
- Henderson, D.A. (1987) 'Principles and Lessons from the Smallpox Eradication Program', *Bulletin of the World Health Organization*, 65: 535–46.
- Henderson, D.A. (1998a) 'Smallpox Eradication: A Cold War Victory', *World Health Forum*: 115–18.
- Henderson, D.A. (1998b) 'Eradication: Lessons from the Past', *Bulletin of the World Health Organization*, 76: 17.
- Horton, R. (2002) 'WHO: The Casualties and Compromises of Renewal', *The Lancet*, 359: 1,605–11.
- Howard-Jones, H. (1981) 'The World Health Organisation in Historical Perspective', *Perspectives in Biology and Medicine*, 24: 467–82.
- Howard-Jones, N. (1978) *International Public Health Between the Two World Wars—The Organisational Problems*, Geneva: World Health Organization.
- Katz, A. (2005) 'The Sachs Report: Investing in Health for Economic Development—or Increasing the Size of the Crumbs from the Rich Man's Table? Part II', *International Journal of Health Services*, 35: 171–88.
- Kickbusch, I. (2000) 'The Development of International Health Priorities: Accountability Intact?', *Social Science & Medicine*, 51: 979–89.
- Kirton, J.J., Roudev, N., and Sunderland, L. (2007) 'Making G8 Leaders Deliver: An Analysis of Compliance and Health Commitments, 1996–2006', *Bulletin of the World Health Organization*, 85: 193.
- Labonte, R. and Schrecker, T. (2004) 'Committed to Health for All? How the G7/G8 Rate', *Social Science & Medicine*, 59: 1,666.
- Lewis, P. (1987) 'UN Authority on AIDS Sees Up To 3 Million New Cases in 5 Years', *New York Times*, 21 October.
- Litsios, S. (2002) 'The Long and Difficult Road to Alma-Ata: A Personal Reflection', *International Journal of Health Services*, 32: 709–32.
- Litsios, S. (2004) 'The Christian Medical Commission and the Development of WHO's Primary Care Approach', *American Journal of Public Health*, 94: 1,884–93.
- McCarthy, M. (2000) 'A Conversation with the Leaders of the Gates Foundation's Global Health Program: Gordon Perkin and William Foege', *The Lancet*, 356: 153–5.
- Maciocco, G. (2008) 'From Alma Ata to the Global Fund: The History of International Health Policy', *Social Medicine*, 3: 41.
- McMichael, A.J., and Haines, A.J. (1997) 'Global Climate Change: The Potential Effects on Health', *British Medical Journal*, 315: 805–809.
- McMichael, A.J., Haines, A.J., Sloof, R., and Kovats, S. (1996) *Climate Change and Human Health*, Geneva: World Health Organization.
- Manela, E. (2010) 'A Pox on Your Narrative: Writing Disease Control into Cold War History', *Diplomatic History*, 34(2): 299–323, available at <http://isites.harvard.edu/fs/docs/icb.topic48666.files/Pox%20on%20your%20narrative-DH-post.pdf> (accessed 16 October 2009).
- Mills, A., Amoako, K.Y., and Kato, T. (2002) 'The Work of the Commission on Macroeconomics and Health', *Bulletin of the World Health Organization*, 80: 164–6.
- Morel, C. (2000) 'Reaching Maturity: 25 Years of TDR', *Parasitology Today*, 16: 2–8.