

CONTENTS

MESSAGE FROM THE DIRECTOR-GENERAL	xi
ACKNOWLEDGEMENTS	xiii
EXECUTIVE SUMMARY	xv
<hr/>	
CHAPTER 1	
LEARNING TO IMPROVE HEALTH	1
Key Messages	1
1.1 Why this report?	2
1.2 A historical perspective: two sides of the coin	3
1.3 The problem: current state of global health	5
1.4 Health systems and health research systems	14
1.5 Taking stock of health research	15
1.6 The process: how was this report developed?	29
1.7 Reorienting health research to strengthen health systems	32
<hr/>	
CHAPTER 2	
TOWARDS A SCIENTIFIC BASIS FOR HEALTH SYSTEMS	37
Key Messages	37
2.1 Bottlenecks and constraints in health systems	38
2.2 Health systems research	44
2.3 What are the knowledge gaps in health systems?	48
2.4 Future challenges	55
<hr/>	
CHAPTER 3	
STRENGTHENING HEALTH RESEARCH SYSTEMS	59
Key Messages	59
3.1 What is commonly known about health research activities?	60
3.2 What is a system for health research and why is it important?	63
3.3 Stewardship: what can good leadership do?	67
3.4 Financing: more funds or better use of existing funds?	73
3.5 Resources: people and organizations matter	76
3.6 Producing, synthesizing, and using research	84
3.7 What else is needed to improve health research systems?	91

CHAPTER 4	
LINKING RESEARCH TO ACTION	97
Key Messages	97
4.1 Links between research, policy, practice and public opinion	98
4.2 Challenges and barriers to the use of research	101
4.3 How can researchers effectively communicate research results?	102
4.4 Strengthening the use of evidence in decision-making	109
4.5 Bringing together the producers and users of research	115
4.6 Improving public health programmes in developing countries	120
4.7 Summary	128
CHAPTER 5	
RECOMMENDATIONS AND ACTION PLAN	131
5.1 Recommendations	131
5.2 Action plan	132
GLOSSARY OF TERMS	139
INFORMATION SOURCES	143
Background documents	143
Related publications	144
ABBREVIATIONS	145
 <hr/>	
TABLES	
Table 1.1 Regional disparities in selected health indicators	6
Table 1.2 Suggested topics for health systems research and their potential to affect MDGs	30
Table 1.3 Research priorities in noncommunicable diseases	31
Table 2.1 Out-of-pocket health payments, catastrophic payments and impoverishment, 59 countries, various years 1991–2000	41
Table 2.2 Availability of death registration data in WHO regions	42
Table 2.3 Barriers and challenges to improving service delivery identified in reviews of major initiatives	45
Table 2.4 Some reasons for neglect of health systems research	47
Table 2.5 Research priorities in health systems financing	52
Table 3.1 Summary of the functions and operational components of health research systems	67
Table 4.1 Conflicting interests of policy-makers and researchers	102
Table 4.2 Potential barriers to the uptake of evidence by health professionals	104
Table 5.1 Action plan overview	133

FIGURES

Figure 1.1	Under-5 mortality rates by income groups of countries	7
Figure 1.2	Under-5 mortality rates by socioeconomic quintile of the household for selected countries	7
Figure 1.3	Maternal mortality per 100,000 live births	8
Figure 1.4	Health research can save lives	9
Figure 1.5	Actual and preventable under-5 deaths by country profiles for 42 countries with 90% of under-5 deaths, 2000	10
Figure 1.6	Mortality attributable to 20 leading risk factors, 2001	12
Figure 1.7	Linkages between functions and goals of health systems	16
Figure 1.8	Linkages between functions and goals of health research systems	16
Figure 1.9	Linkages between the health, health research and research systems and the broader macro-environment	17
Figure 1.10	Triangle that moves the mountain	19
Figure 1.11	Membership of WHO expert advisory panels by gender, 1996–2002	21
Figure 1.12	Number of authors from regions and countries publishing or co-publishing papers on chronic diseases or their major risk factors, 1990–1993 and 2000–2003	22
Figure 1.13	Articles indexed in PubMed, 1950–1999	23
Figure 1.14	Global Internet access, 2002	23
Figure 1.15	Value and impact of systematic reviews	25
Figure 1.16	Number and proportion of systematic reviews in developed and developing countries	25
Figure 2.1	Relationship between mortality and health workforce	38
Figure 2.2	Health workforce by region	39
Figure 3.1	Proportion of scientific publications addressing health topics from different regions in the world, 2001	61
Figure 3.2	A view of strategic research	63
Figure 3.3	Key stakeholders within Malaysia's national health research system	68
Figure 3.4	Perspectives on research priority setting processes	71
Figure 3.5a	Percentage of researchers by types of science and technology personnel in selected Latin American countries	76
Figure 3.5b	Proportion of women within each class of science and technology personnel in selected Latin American countries	77
Figure 3.5c	Percentage of researchers by sector of employment in selected Latin American countries compared to the USA	77
Figure 3.5d	Percentage of science and technology personnel by field of science in selected Latin American countries	78
Figure 3.6	Collaboration in health research production for WHO Regions, 2001	84
Figure 3.7	Publications in journals addressing health topics by field, 1992–2001	87

Figure 3.8	Analysis of systematic reviews for selected health interventions	87
Figure 3.9	Bona Simanjuntak gives a Wi-Fi demonstration to students in Jakarta, Indonesia	91
Figure 4.1	Research to policy and practice pathway	100
Figure 4.2	Experience matters: links between mortality rate and volume of surgical procedures	101
Figure 4.3	Simple solutions: treating diarrhoea in Bangladesh	127

BOXES

Box 1.1	Health system constraints in Haiti	11
Box 1.2	Policing disease: Hong Kong's rapid response to SARS	13
Box 1.3	The first global health treaty is based on research	14
Box 1.4	Important lessons for governments on developing better risk communications	18
Box 1.5	Implementing good clinical practice guidelines in developing countries	28
Box 1.6	Promoting health equity	32
Box 2.1	How Tanzania is using research to reform its health system	49
Box 2.2	Lao national drug policy	50
Box 2.3	INDEPTH	54
Box 2.4	Studying how societies optimize human health and well-being	56
Box 3.1	Evaluating biomedical research in the United States	66
Box 3.2	Creating a national health research system in the Philippines	69
Box 3.3	New Zealand: health research for Maori by Maori	70
Box 3.4	Public-private partnerships for research and development	72
Box 3.5	Innovative financing schemes for health research	75
Box 3.6	Building research capacity in South Africa	79
Box 3.7	Technology transfer to developing countries	80
Box 3.8	Creating an enabling working environment	82
Box 3.9	Brain drain or science gain?	83
Box 3.10	Fostering international collaboration	85
Box 3.11	A new social contract: HINARI bridges the digital divide	89
Box 3.12	WHO's Health Evidence Network	90
Box 3.13	Essential evidence for better practice in reproductive health	90
Box 3.14	Collective benchmarking of health research systems	93
Box 4.1	Research to policy: a contrarian's view	103
Box 4.2	A five-step approach to knowledge transfer	106
Box 4.3	Evidence-based health policy in Mexico	110
Box 4.4	A decade of diabetes research in Cameroon and its political impact	111

Box 4.5	INCLEN's Knowledge Plus Project	114
Box 4.6	Translating research findings into practice	115
Box 4.7	Case study: the Equity Gauge Three Pillar Model	116
Box 4.8	Research to policy: views of senior policy-makers	117
Box 4.9	European Observatory on Health Systems and Policies	119
Box 4.10	Improving care during pregnancy and delivery	122
Box 4.11	Field research influences health policy	123
Box 4.12	Why research fails? A letter from an anthropologist	125
Box 4.13	Community participation in health research: an example from Nepal	126
Box 4.14	Research for control: the onchocerciasis experience	128