

Statistics and the Language of Global Health

Yi-Tang Lin presents the historical process by which statistics became the language of global health for local and international health organizations. Drawing on archival material from three continents, this study investigates efforts by public health schools, philanthropic foundations, and international organizations to turn numbers into an international language for public health. Lin shows how these initiatives produced an international network of public health experts who, across various socioeconomic and political contexts, opted for different strategies when it came to setting global standards and translating local realities into numbers. Focusing on China and Taiwan between 1917 and 1960, Lin examines the reception, adaptation, and appropriation of international health statistics. She presents the dynamic interplay between numbers, experts, and policy-making in international health organizations and administrations in China and Taiwan. This title is also available as Open Access on Cambridge Core.

Yi-Tang Lin is a Swiss National Science Foundation postdoctoral fellow at the University of Geneva and a visiting scholar at the Harvard Fairbank Center for Chinese Studies for 2021–22.

Global Health Histories

Series editor:

Sanjoy Bhattacharya, University of York

Global Health Histories aims to publish outstanding and innovative scholarship on the history of public health, medicine and science worldwide. By studying the many ways in which the impact of ideas of health and well-being on society were measured and described in different global, international, regional, national and local contexts, books in the series reconceptualise the nature of empire, the nation state, extra-state actors and different forms of globalisation. The series showcases new approaches to writing about the connected histories of health and medicine, humanitarianism, and global economic and social development.

Statistics and the Language of Global Health

*Institutions and Experts in China,
Taiwan, and the World, 1917–1960*

Yi-Tang Lin

University of Geneva



Cambridge University Press & Assessment
978-1-108-84592-2 — Statistics and the Language of Global Health
Yi-Tang Lin
Frontmatter
[More Information](#)

CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom
One Liberty Plaza, 20th Floor, New York, NY 10006, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre,
New Delhi – 110025, India
103 Penang Road, #05–06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning, and research at the highest international levels of excellence.

www.cambridge.org
Information on this title: www.cambridge.org/9781108845922
DOI: 10.1017/9781108991339

© Yi-Tang Lin 2022

This work is in copyright. It is subject to statutory exceptions and to the provisions of relevant licensing agreements; with the exception of the Creative Commons version the link for which is provided below, no reproduction of any part of this work may take place without the written permission of Cambridge University Press.

An online version of this work is published at doi.org/10.1017/9781108991339 under a Creative Commons Open Access license CC-BY-NC 4.0 which permits re-use, distribution and reproduction in any medium for non-commercial purposes providing appropriate credit to the original work is given and any changes made are indicated. To view a copy of this license visit <https://creativecommons.org/licenses/by-nc/4.0>

All versions of this work may contain content reproduced under license from third parties.

Permission to reproduce this third-party content must be obtained from these third-parties directly.

When citing this work, please include a reference to the
DOI 10.1017/9781108991339

First published 2022

A catalogue record for this publication is available from the British Library.

ISBN 978-1-108-84592-2 Hardback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

For my parents,
Chen Ying and Lin Kuo-Ching

Contents

<i>List of Figures</i>	<i>page</i> viii
<i>List of Tables</i>	ix
<i>Acknowledgments</i>	x
<i>Note on Language</i>	xiii
<i>List of Abbreviations</i>	xiv
Introduction	1
1 The Call for a Language of Public Health: Philanthropic Foundations, Bacteriologists, and Health Administrators	24
2 The Language and Dialect of Health Science: Public Health Schools and Their Statistical Practices	41
3 The Language of Health Administrations: The League of Nations Epidemiological Intelligence Service	78
4 The Language of Policy-Making: Research and Advocacy through Health Demonstrations	109
5 Popularization at a Global Scale: The WHO and the Postwar Health Statistics Reporting System	143
6 The Art of Rhetoric: Statistical Standards at Work, from Fieldwork to World Policy-Making	173
7 Another Way of Speaking? Public Health Statistics in the People’s Republic of China	202
Conclusion: Numbers, Experts, and Policy-Making	223
<i>Glossary of Chinese Key Terms</i>	229
<i>Bibliography</i>	231
<i>Index</i>	254

Figures

1.1 Comparative expenditures for administration, research, and publication (1905–1929)	<i>page 29</i>
2.1 Growth in the number of full-time county health organizations (1908–1926)	45
2.2 Student laboratory at the Department of Biometry and Vital Statistics	51
2.3 Wooden trough representing an isolated community in the Reed–Frost model	54
2.4 Pie chart of visits by Peking First Health Station public health nurses (1928–1929)	67
2.5 Health appraisal of the Peking First Health Station (1927–1930)	68
2.6 The first cohort of Peking First Health Station sanitary inspectors, photographed in front of the Peking Union Medical College	74
3.1 Norman White’s route to the Far East	97
4.1 Statistical service of the Central Field Health Station	136
6.1 An example of a punch card used in the WHO’s malaria survey	178
6.2 Map of the Chishan malaria control experiment	187

Tables

0.1	List of institutional archival holdings	<i>page</i> 18
3.1	LNHO tiered network for statistical standards	92
4.1	Categories of statistics presented in the annual report of the CFHS for the year ending December 31, 1936	133
5.1	WHO tiered network of statistical standard-setting	159

Acknowledgments

This book tells the stories of people who traveled and learned. In my own travels and learning, I have relied on the help of many people.

For his support during the doctoral research on which this book is based, I would like to express my sincere gratitude to my dissertation advisor, Thomas David, for his scrupulous and critical reading, which pushed me to refine every part of my argument amid a sea of archival sources. My co-advisor, Davide Rodogno, was the first person to read my preliminary chapters and advised me to write more like a historian, a skill that I am still learning. Their mentorship, patience, and passion for research guided me throughout my doctoral work. The dissertation would not have been what it is without the comments and criticisms of my thesis committee, and for that I am profoundly indebted to Anne-Emanuelle Birn, Pierre Singaravélou, and Yohan Ariffin.

This book has greatly benefited from myriad discussions and critical comments, and the testing out of my arguments over the years. I want to address my gratitude to the members of the Swiss National Science Foundation's Sinergia research network "Patterns of Transnational Regulation" – Sandrine Kott, Martin Lengwiler, Roberto Sala, Matthieu Leimgruber, Jean-Christophe Graz, Milena Guthörl, and Nils Moussu – for stimulating discussions and comments on my drafts. I have enjoyed and learned so much from our meetings. I would also like to thank Lion Murard, Patricia Rosenfield, Dan Fox, Sean Hsiang-Lin Lei, Chang Li, Kawashima Shin, Dora Vargha, and the late Socrates Litsios for the inspiring discussions and encouragement.

The Swiss National Science Foundation provided important financial support for this book: the open access version of this book was funded by the Swiss National Science Foundation, and I would not have had access to such extensive archival materials without the financial support of the Foundation's Sinergia research network. I would also like to thank Reynald Erard of the World Health Organization Archives, Jacques Obserson of the League of Nations Archives, and Margaret Hogan, Monica Blank, and the late Tom Rosenbaum of the Rockefeller Archive Center:

not only did they share their knowledge, they slaked my thirst for sources by providing leads to more material. A chat with Tom provided leads for Chapter 2. My sincere thanks to Zhang Daqing, Liu Shiyung, and Zhang Yung-An for helping me to access Chinese archives. It was not easy to gain access to Chinese material from Switzerland; I am grateful to Chen Ju-Han, Kao Tzu-Yi, and Lin Yi-Hsuan for helping me access online databases, which saved me much trouble. I would also like to thank the Beijing Municipal Archives, the Peking Union Medical College Archives, the Archives of the Chinese Ministry of Foreign Affairs, the National Library of China, Shanghai Library, Academia Historica, the Institute of Modern History of the Academia Sinica, Taiwan Historica, the Alan Mason Chesney Medical Archives of the Johns Hopkins Medical Institutions, the American Philosophical Society, the Columbia University Libraries, the National Archives and Records Administration (College Park), the United Nations Archives and Records Management Section, the William H. Welch Medical Library, and Yale University Library.

I have given lectures based on parts of this book at the Peking University Department of History of Science, Technology and Medicine, the Chinese Academy of Science Institute for the History of Natural Science, and the Global Asia Research Center at National Taiwan University. I would like to thank Zhang Li, Zhang Daqing, Wu Chia-Lin, Lan Pei-Chia, and the participants at those lectures for the thought-provoking discussions and encouragement. Sanjoy Bhattacharya, Lucy Rhymmer, and anonymous readers have helped this book become what it is today and live up to its potential. Rachel Blaifeder bore with my rookie editing questions. Margaret Besser copyedited the manuscript; her meticulous editing and knowledge of Chinese helped me overcome linguistic barriers and saved me from many embarrassing typos. Jess Farr-Cox, Stephanie Carter, Aaron Glasserman and Mathilde Sigalas provided precious advice at the final stretch of editing. Ludovic Tournès, Pierre-Yves Saunier, Lan Pei-Chia, Davide Rodogno, Harry Wu shared their experience of writing books and prepared me for this otherwise unimaginable ride.

Rewrites were completed during my postdoctoral research on the Swiss National Science Foundation Heralds of Globalization project. My teammates Ahmad Fahoum, Mathilde Sigalas, Hannah Tyler, and I are now sailing in an even larger sea of experts who have traveled and learned.

My friends and colleagues Sabina Widmer, Johanna Schnabel, Virginie Fracheboud, Andrea Pilotti, Caroline Bertron, Chuang Ya-Han, Lee Shih-Rong, and Michael Hutter were precious allies during the long thesis-writing process. Yi-Chien Chu, Chia-Fen Liao, De-Wei Chen,

xii Acknowledgments

Shu-Wen Tang, and Chang-Jr Lin helped me make it through the difficult period when I was unable to go home by “airdropping” Taiwanese food. Po-Jung Yang and Pei-Yin Chien always remind me of my deadlines and make sure I am making progress. Albert Hsu, Yung-wei Song, and Ray Ho were always welcoming during my trips to the New York archives – at a time when traveling was simpler.

Finally, special thanks to my family. My parents are always supportive of my odd life choices. My sister has been my reserve commander, supplying me with food. My partner, Dominique, has been amazingly supportive in so many ways – from taking photos in the archives while on vacation to taking care of household chores and enduring my monologues-disguised-as-questions with a delightfully weird sense of humor.

Note on Language

This book uses the pinyin romanization system. The historical romanizations used in original sources are provided upon first mention in each chapter. Alternative forms are used for the following: (1) historical figures who are widely known under a different romanization (e.g. Sun Yat-Sen, Chiang Kai-Shek); (2) Taiwanese places; and (3) contemporary scholars, whose names are romanized according to their preference.

Cited Works

Historical publications in Chinese are romanized using pinyin. Author names for English-language publications are cited in their original forms. Journals in Chinese are cited in pinyin alongside their official translations.

A glossary of Chinese individuals and organizations is provided at the end of this book.

Abbreviations

AICP	Association for Improving the Condition of the Poor
APHA	American Public Health Association
BCG	Bacillus Calmette–Guérin (vaccine)
CCMC	Committee on the Costs of Medical Care
CFHS	Central Field Health Station
DALY	Disability-Adjusted Life Year
GMEP	Global Malaria Eradication Program
ICA	International Cooperation Administration
ICD	International List of Causes of Death/International Classification of Diseases
IHB	International Health Board
IHD	International Health Division
ISI	International Statistical Institute
JCRR	Joint Commission on Rural Reconstruction
JHSPH	Johns Hopkins School of Public Health
LNHO	League of Nations Health Organization
MEM	Mass Education Movement
NHA	National Health Administration
OIHP	Office international d’hygiène publique
PAHO	Pan American Health Organization
PFHS	Peking First Health Station
PRC	People’s Republic of China
PUMC	Peking Union Medical College
ROC	Republic of China
TMRI	Taiwan Malaria Research Institute
UNICEF	United Nations Children’s Fund
UNRRA	United Nations Relief and Rehabilitation Administration
USPHS	United States Public Health Service
WHO	World Health Organization
WHOIC	World Health Organization Interim Commission