

ANNUAL REPORT
OF THE
PUBLIC HEALTH COMMISSIONER
WITH THE GOVERNMENT OF INDIA
FOR 1935.



Volume I.
With Appendices.

PUBLISHED BY THE MANAGER OF PUBLICATIONS, DELHI
PRINTED BY THE MANAGER, GOVERNMENT OF INDIA PRESS, NEW DELHI,
1937

Price Rs. 4-4 or 7s.

List of Agents in India from whom Government of India Publications are available.

(a) PROVINCIAL GOVERNMENT BOOK DEPOTS.

- MADRAS** :—Superintendent, Government Press, Mount Road, Madras.
- BOMBAY** :—Superintendent, Government Printing and Stationery, Queen's Road, Bombay.
- SIND** :—Manager, Sind Government Book Depot and Record Office, Karachi (Sadar).
- UNITED PROVINCES** :—Superintendent, Government Press, Allahabad.
- PUNJAB** :—Superintendent, Government Printing, Punjab, Lahore.
- CENTRAL PROVINCES** :—Superintendent, Government Printing, Central Provinces, Nagpur.
- ASSAM** :—Superintendent, Assam Secretariat Press, Shillong.
- BIHAR** :—Superintendent, Government Printing, P. O. Gulzarbagh, Patna.
- NORTH-WEST FRONTIER PROVINCE** :—Manager, Government Printing and Stationery, Peshawar.
- ORISSA** :—Press Officer, Secretariat, Cuttack.

(b) PRIVATE BOOK-SELLERS.

- | | |
|--|---|
| <p>Advani Brothers, P. O. Box 100, Cawnpore.</p> <p>Aero Stores, Karachi.*</p> <p>Banthyia & Co., Ltd., Station Road, Ajmer.</p> <p>Bengal Flying Club, Dum Dum Cantt.*</p> <p>Bhatia Book Depot, Saddar Bazar, Ranikhet.</p> <p>Bhawnani & Sons, New Delhi.</p> <p>Book Company, Calcutta.</p> <p>Booklover's Resort, Taikad, Trivandrum, South India.</p> <p>Burma Book Club, Ltd., Rangoon.</p> <p>Butterworth & Co. (India), Ltd., Calcutta.</p> <p>Careers, Mohini Road, Lahore.</p> <p>Chatterjee & Co., 3, Bacharam Chatterjee Lane, Calcutta.</p> <p>Chukerverty, Chatterjee & Co., Ltd., 13, College Square, Calcutta.</p> <p>Das Gupta & Co., 54/3, College Street, Calcutta.</p> <p>Delhi and U. P. Flying Club, Ltd., Delhi.*</p> <p>English Book Depot, Ferozepore.</p> <p>English Book Depot, Taj Road, Agra.</p> <p>English Bookstall, Karachi.</p> <p>Faqir Chand Marwah, Peshawar Cantt.</p> <p>Fono Book Agency, Simla.</p> <p>Gautama Brothers & Co., Ltd., Meston Road, Cawnpore.</p> <p>Higginbothams, Madras.</p> <p>Hindu Library, 137-F, Balaram De Street, Calcutta.</p> <p>Hyderabad Book Depot, Chaderghat, Hyderabad (Deccan).</p> <p>Imperial Book Depot and Press, near Jama Masjid (Machhliwalan), Delhi.</p> <p>Indian Army Book Depot, Dayalbagh, Agra.</p> <p>Indian Army Book Depot, Daryaganj, Delhi.</p> <p>Indian Book Shop, Benares City.</p> <p>Indian School Supply Depot, Central Avenue, South, P. O. Dharamtala, Calcutta.</p> <p>Insurance Publicity Co., Ltd., Lahore.</p> <p>International Book Service, Poona 4.</p> <p>Jacques & Co., Kamptee Road, Nagpur, Messrs. Neston.</p> <p>Jaina & Bros., Mori Gate, Delhi, and Connaught Place, New Delhi, Messrs. J. M.</p> <p>Kamala Book Depot, 15, College Square, Calcutta.</p> <p>Karnataka Publishing House, Bangalore City.</p> <p>Keale & Co., Karachi.</p> <p>Kitabistan, 17-A, City Road, Allahabad.</p> <p>Krishnaswami & Co., Teppakulam P. O., Trichinopoly Fort, Messrs. S.</p> <p>Lahiri & Co., Calcutta, Messrs. S. K.</p> <p>Local Self Govt. Institute, Bombay.</p> <p>London Book Co. (India), Arbab Road, Peshawar, Murree, Nowshera, Rawalpindi.</p> | <p>London Book House, 17, Rajpur Road, Dehra Dun.</p> <p>Malik & Sons, Sialkot City.</p> <p>Messrs. U. P. Malhotra & Co., Post Box No. 94, Lahore.</p> <p>Minerva Book Shop, Anarkali Street, Lahore.</p> <p>Modern Book Depot, Bazar Road, Sialkot Cantt.</p> <p>Modern Book Depot, Napier Road, Jullundur Cantt.</p> <p>Mohanlal Dossabhai Shah, Rajkot.</p> <p>Nandkishore & Bros., Chowk, Benares City.</p> <p>New Book Co., "Kitab Mahal," 192, Hornby Road, Bombay.</p> <p>Newman & Co., Ltd., Calcutta, Messrs. W.</p> <p>Oxford Book and Stationery Company, Delhi, Lahore, Simla, Meerut and Calcutta.</p> <p>Parikh & Co., Baroda, Messrs. B.</p> <p>Pioneer Book Supply Co., 20, Shih Narayan Das Lane, Calcutta and 219, Cloth Market, Delhi.</p> <p>Popular Book Depot, Grant Road, Bombay.</p> <p>Punjab Religious Book Society, Lahore.</p> <p>Raghunath Prasad & Sons, Patna City.</p> <p>Rama Krishna & Sons, Booksellers, Anarkali, Lahore.</p> <p>Ram Krishna Bros., Opposite Bishrambag, Poona City.</p> <p>Ram Narain Lal, Katra, Allahabad.</p> <p>Ramesh Book Depot and Stationery Mart, Kashmere Gate, Delhi.</p> <p>Ray & Sons, 43, K. & L. Edwardes Road, Rawalpindi, Murree and Peshawar, Messrs. J.</p> <p>Roy Chowdhury & Co., 72, Harrison Road, Calcutta, Messrs. N. M.</p> <p>Sarcar & Sons, 15, College Square, Calcutta, Messrs. M. O.</p> <p>Sarkar & Co., Ltd., 18, Shama Charan De Street, and 6, Hastings Street, Calcutta, Messrs. P. C.</p> <p>Standard Bookstall, Karachi.</p> <p>Standard Bookstall, Quetta.</p> <p>Standard Book Depot, Lahore, Dalhousie and Delhi.</p> <p>Standard Law Book Society, 69, Harrison Road, Calcutta.</p> <p>Tara & Sons, Razmak (India), Messrs. B. S.</p> <p>Taraporevala Sons & Co., Bombay, Messrs. D. B.</p> <p>Thacker & Co., Ltd., Bombay.</p> <p>Thacker, Spink & Co., Ltd., Calcutta and Simla.</p> <p>Tripathi & Co., Booksellers, Princes Street, Kalbdevi Road, Bombay, Messrs. N. M.</p> <p>University Book Agency, Kacheri Road, Lahore.</p> <p>Upper India Publishing House, Ltd., Literature Palace, Ammuddaula Park, Lucknow.</p> <p>Varadachary & Co., Madras, Messrs. P.</p> <p>Venkatasubban, A., Law Bookseller, Vellore.</p> <p>Wheeler & Co., Allahabad, Calcutta and Bombay Messrs. A. H.</p> <p>Young Man & Co. (Regd.), Egerton Road, Delhi.</p> |
|--|---|

* Agent for publications on Aviation only.

ANNUAL REPORT OF THE PUBLIC HEALTH COMMISSIONER WITH THE GOVERNMENT OF INDIA FOR 1935.

VOLUME I.

TABLE OF CONTENTS.

SECTION I.

ON THE STATE OF PUBLIC HEALTH IN BRITISH INDIA.

PARA.	PAGE.
1. Introduction	1
2. Population	3
3. Live-births	6
4. Deaths	8
5. Infantile mortality	10
6. Still-births	13
7. Registration	13
8. Births and deaths in Indian States	14
9. Rainfall	14
10. Agricultural and economic conditions	15
11. Famine relief	19

SECTION II.

HISTORY OF CHIEF DISEASES.

12. Chief causes of mortality	20
13. Cholera—	
(a) General	20
(b) Provincial	21
(c) Anti-cholera measures	23
14. Plague—	
(a) General	24
(b) Provincial	25
(c) Anti-plague measures	27
15. Smallpox—	
(a) General	28
(b) Provincial	29
(c) Isolation hospitals	31

SECTION II—*contd.*HISTORY OF CHIEF DISEASES—*contd.*

PARA.	PAGE.
16. Fevers—	
(a) General	32
(b) Provincial	32
17. Malaria—	
(a) General	33
(b) Provincial	34
(c) Anti-malarial measures	36
(d) Quinine	38
18. Dysentery and diarrhoea	43
19. Enteric fever	44
20. Respiratory diseases	44
21. Pneumonia	45
22. Tuberculosis—	
(a) General	46
(b) Provincial	48
23. Beri-beri and epidemic dropsy	50
24. Ankylostomiasis	51
25. Leprosy—	
(a) General	52
(b) Provincial	54
26. Rabies and hydrophobia	58
27. Venereal diseases	59
28. Yaws	60
29. Kala-azar	60
30. Relapsing fever	60
31. Influenza	61
32. Goitre	61
33. Guineaworm	61
34. Diphtheria	61
35. Typhus fever	61
36. Cancer	62
37. Cerebrospinal fever	62
38. Trachoma	65

SECTION III.

MATERNITY AND CHILD WELFARE.

39. Maternal mortality	67
40. Midwifery services	69
41. Facilities for training	70
42. Maternity and child welfare	71
43. Training of doctors and health visitors	72

SECTION IV.

PUBLIC HEALTH ADMINISTRATION.

PARA.	PAGE.
44. Administration	75
45. Medical inspection of schools	79
46. Fairs and festivals	82
47. Health propaganda	83
48. Industrial hygiene and mines	85
49. Adulteration of food	88
50. Railways	90

SECTION V.

MEDICAL INTELLIGENCE AND INTERNATIONAL HEALTH INCLUDING PORTS.

51. Epidemiological intelligence	92
52. Office International d'Hygiene Publique, Paris	92
53. Eastern Bureau, League of Nations, Singapore	96
54. Health Section of the League, Geneva	97
55. Intergovernmental conference on biological standardisation	100
56. Pan-African Health Conference, Johannesburg	100
57. The Indian Delegation to the 16th (Ordinary) Session of the Assembly of League of Nations	102
58. Port Quarantine	105
59. Port of Bombay	107
60. Port of Karachi	108
61. Airport of Karachi	108
62. Port of Calcutta	109
63. Port of Madras	110
64. Port of Rangoon	110
65. Port of Aden	111
66. Kamaran Quarantine Station, Red Sea	112

SECTION VI.

VACCINATION AGAINST SMALLPOX.

A.—BRITISH INDIA.

67. General	113
68. Vaccine institutes and supply of vaccine	113
<i>Vaccination in provinces.</i>	
69. North-West Frontier Province	116
70. Punjab	116
71. Delhi	116
72. United Provinces	116
73. Bihar and Orissa	116

SECTION VI—*contd.*VACCINATION AGAINST SMALLPOX—*contd.*A.—BRITISH INDIA—*contd.**Vaccination in provinces—contd.*

PARA.	PAGE.
74. Bengal	117
75. Central Provinces	117
76. Bombay Presidency	117
77. Madras Presidency	118
78. Coorg	118
79. Assam	118
80. Burma	118
81. Andamans	119
82. Compulsory vaccination	119

B.—INDIAN STATES.

83. Punjab, Gujerat States Agency, Shan States (Burma) and Mysore State	120
---	-----

SECTION VII.

PUBLIC HEALTH WORKS.

A.—BRITISH INDIA.

84. General	121
85. North-West Frontier Province	122
86. Punjab	122
87. Delhi	124
88. United Provinces	124
89. Bihar and Orissa	125
90. Bengal Presidency	125
91. Central Provinces	126
92. Bombay Presidency	126
93. Madras Presidency	127
94. Assam	127
95. Burma	127

B.—INDIAN STATES.

96. Federated Shan States (Burma) and Mysore State	128
--	-----

SECTION VIII.

LABORATORIES AND MEDICAL RESEARCH.

PARA.	PAGE.
97. Central Research Institute, Kasauli	129
98. All-India Institute of Hygiene and Public Health, Calcutta	131
99. School of Tropical Medicine, Calcutta	133
100. Haffkine Institute, Bombay	136
101. King Institute of Preventive Medicine, Madras	137
102. Pasteur Institute of India, Kasauli	138
103. Pasteur Institute of Southern India, Coonoor	140
104. King Edward VII Memorial Pasteur Institute, Shillong	140
105. Burma Pasteur Institute and Bacteriological Laboratory, Rangoon	141
106. Pasteur Institute, Calcutta	142
107. Pasteur Institute, Bombay	142
108. Pasteur Institute, Patna	142
109. Medico-legal work	143
INDIAN RESEARCH FUND ASSOCIATION.	
110. General	144
111. Cholera and bacteriophage :—	
(a) Calcutta	145
(b) Kasauli	145
(c) Shillong	146
112. Malaria :—	
(a) Malaria Survey of India, Kasauli	146
(b) Sind malaria enquiry	146
(c) Air traffic and yellow fever prevention enquiry	147
(d) Anti-malaria drugs enquiry	147
(e) Malaria transmission enquiry	147
(f) Field Malaria enquiry	147
(g) Black-water fever enquiry	147
(h) Assam Medical Research Society	147
113. Nutrition	148
114. Leprosy	148
115. Plague	148
116. Vaccines	149
117. Tuberculosis	149
118. Kala-azar	149
119. Miscellaneous	149

SECTION IX.

MEDICAL INSTITUTIONS.

HOSPITALS AND DISPENSARIES.

PARA.	PAGE.
120. General and statistical	152.
121. Provincial	156
122. Mysore State	159.
123. Mental hospitals	159.
124. Medical Colleges	160.
125. Medical research in the Colleges	160.
126. Medical Schools	162.
127. The Countess of Dufferin's Fund	163.

SECTION X.

HEALTH OF JAILS IN INDIA.

128. Population	164.
129. Sick rate	165.
130. Admission rate	165
131. Death rate	165.
132. Causes of sickness and mortality	165
133. Cerebrospinal fever	166.
134. Influenza	166.
135. Cholera	166
136. Smallpox	166.
137. Plague	166
138. Enteric fever	166
139. Kala-azar	166.
140. Dysentery	166.
141. Diarrhoea	166
142. Malaria	167
143. Pneumonia	167
144. Tubercle of the lungs	167
145. Weight of Prisoners	168.
146. Provincial	169.
147. Conclusion	177

SECTION XI.

INDIAN VOLUNTARY HEALTH ORGANISATIONS.

148. The Indian Red Cross Society	179
(a) Maternity and Child Welfare Bureau	180
(b) The Victoria Memorial Scholarship Fund	180
(c) King George Thanksgiving (<i>anti-tuberculosis</i>) Fund	180
(d) Junior Red Cross	180
(e) Cinema Section	181
(f) Propaganda and publicity	181
(g) Nurses and volunteers	181
(h) Rural welfare	181
149. The St. John Ambulance Association (Indian Council) and the St. John Ambulance Brigade Overseas	182
150. British Empire Leprosy Relief Association (Indian Council)	184
151. The Countess of Dufferin's Fund and Women's Medical Service	185
152. Lady Minto's Indian Nursing Association	185
153. The Bombay Presidency Baby and Health Week Association	186
154. Rockefeller Foundation, International Health Division	186

SECTION XII.

MISCELLANEOUS.

155. Nutrition	188
156. Yellow Fever	196
157. Drug Adulteration	199
158. The Quetta Earthquake	200
159. The Organisation of Public Health Departments	203

Appendices I—IX (see details on page 209 *et seq.*).

LIST OF ILLUSTRATIONS.

MAPS.

1. Map showing the distribution of cholera mortality in India during 1935. (*Between pages 20 and 21*).
2. Map showing the distribution of plague mortality in India during 1935. (*Between pages 24 and 25*).
3. Map showing the distribution of smallpox mortality in India during 1935. (*Between pages 28 and 29*).

CHARTS, GRAPHS, ETC.

1. Chart showing a comparison of birth, death and infantile mortality rates of British India with other countries in 1935. (*Facing page 2*).
2. Chart showing infantile mortality *per mille* of live-births in British India, England and Wales and British Dominions in 1935. (*Facing page 10*).
3. Diagram showing deaths by causes in 1935, compared with the decennial mean (1925—1934). (*Facing page 20*).
4. Graph showing the weekly numbers of deaths from cholera in India from the year 1931 to 1935 and map showing changes in the geographical distribution of cholera in India during 1934 and 1935 (cases reported per 100,000). (*Facing page 20*).
5. Chart showing plague deaths reported in Northern India by four-weekly periods, from January 1923 to December 1935. (*Facing page 24*).
6. Graph showing smallpox cases reported in India during the years 1930, to 1935, (by four-weekly periods). (*Facing page 28*).
7. Vaccination graph showing percentages of successful cases to total operations during 1935-36. (*Facing page 114*).