

Report of the Medical Officer of Health / Municipality of Colombo.

Contributors

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CEYLON SESSIONAL PAPERS, 1948.

APPENDIX C.

REPORT OF THE CHIEF MEDICAL OFFICER OF HEALTH
FOR 1947.

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STATISTICAL SUMMARY, 1947.

Mean temperature	80.6°F.
Mean humidity	78 per cent.
Rainfall	...	...	...	90.68 inches
Average rainfall for the last 10 years	...	...	...	87.90 inches
Area within M. C. limits exclusive of lake	...	...	...	8,317 acres
Population at Census of March 19, 1946	...	...	...	355,374
Estimated mean population, 1947	...	...	...	362,230
Average density per acre	...	...	...	43.5
Number of live births registered	...	...	...	17,765
Birth-rate (per 1,000 of estimated population)	...	...	...	49.0
Birth-rate corrected for non-residents	...	...	...	33.6
Maternal mortality rate per 1,000 births	...	...	...	15.7
Maternal mortality rate corrected for non-residents	...	...	...	8.9
Number of infantile deaths	...	...	...	2,162
Infant mortality rate per 1,000 births	...	...	...	122
Infant mortality rate corrected for non-residents	...	...	...	117
Percentage of infantile deaths to total mortality	...	...	...	25.9
Number of stillbirths	...	...	...	702
Stillbirth rate per 1,000 births, live and still	...	...	...	38.0
Number of deaths	...	...	...	8,327
Crude death-rate per 1,000 population	23.0
Death-rate corrected for non-residents	14.2

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STATISTICAL SUMMARY, 1947—(contd.)

Pneumonia	{ Number of deaths ...	764*
	{ Death-rate per 1,000 population...	2'1
Phthisis	{ Number of deaths ...	527*
	{ Death-rate per 1,000 population...	1'5
Enteric fever	{ Number of deaths ...	213*
	{ Death-rate per 1,000 population...	0'5
Diarrhœa and Enteritis...	{ Number of deaths ...	809*
	{ Death-rate per 1,000 population...	2'2
Dysentery	{ Number of deaths ...	140*
	{ Death-rate per 1,000 population...	0'4
Diphtheria	{ Number of deaths ...	28*
	{ Death-rate per 1,000 population...	0'08

* Includes deaths of non-residents in Hospitals.

I assumed duties as Chief Medical Officer of Health during the first half of the year.

The health of the City during the year under review showed a definite improvement and was an uneventful one except for the flood, which affected Colombo in the latter half of the year. About as much as one-fifth of the northern section of the City was inundated. The refugees who fled from their homes were given shelter in public institutions and temporary refugee camps provided by the Council.

The possibilities of an increased incidence of sickness and mortality was anticipated as a result of bathing in polluted flood waters and unavoidable overcrowding of refugees. Accordingly steps were taken to warn the people against the threatened dangers and to clean up the affected areas, chlorinate the wells, disinfect premises and to offer free inoculation against enteric.

Two Dispensary Medical Officers were also detailed to attend to any case of sickness. This timely action prevented a serious outbreak of disease and helped towards keeping down the morbidity and mortality figures.

The total number of deaths registered in the City was 8,327 as compared with 9,288 in the previous year.

The corrected death-rate calculated on the estimated population of 362,230 was 14'2 as compared with 15'9 in the previous year.

The birth-rate was 49'0 per 1,000 of the estimated population as against 55'2 for the previous year and 42'3 per 1,000, the average for the preceding 10 years.

Coming now to infectious diseases, the City was free from all the major infectious diseases, viz., smallpox, plague, and cholera.

The incidence of enteric fever during the year was lower than that of the previous year, the figure being 243 for 1947 as compared with 382 for the previous year and 371 the average for the last ten years.

Likewise pneumonia, continued fever, dysentery, diphtheria, and whooping cough also showed a lower incidence. On the other hand phthisis, mumps, measles, and chickenpox showed an increase. The rise in measles and chickenpox was due to several outbreaks in schools owing to delay in notification of cases and to the floods as a result of unavoidable overcrowding of refugees.

Though the year under review showed, on the whole, a definite improvement in respect of morbidity and mortality figures as against previous years, yet our achievements so far fall short of what one would consider the ideal. Diseases such as pneumonia, phthisis, enteric fever, dysentery, and the infantile mortality rates are extremely high and compare badly with corresponding figures in advanced countries like Great Britain.

It goes without saying that the principal causes that maintain our morbidity and mortality figures at so high a level are bad housing conditions, bad drainage and under and improper feeding of children chiefly due to poverty and ignorance.

That being the case, the issues to which most attention should be paid and placed in the forefront of our activities are improvement of the housing conditions of the people and completion of the sewerage system, at the same time raising the standard of living of those in the humbler strata of society.

The effects produced by these evils are not only direct and immediate but indirect and lifelong. The environmental background is as important to the well-being of the individual, as soil, light and moisture are necessary to the growth of vegetation.

Top priority should be given to dealing with the housing problem. New legislation on the lines found necessary in dealing with slum evils in other countries is required if there is to be a substantial advance towards the ending or mending of the City's slums.

It is only the field staff who are constantly visiting the slums who can realize how insidiously but steadily congestion is being intensified and extended, and how seriously this growth of congestion is adding to the gravity of the City's slum problem, and this is further intensified with the increase of the foreign element of the City's population. And what a financial burden is being accumulated for future generations to shoulder.

Since the purpose of a health service is not only to prevent nuisances but also to prevent illness, our primary effort should be directed against those preventable diseases and conditions that are most important from the standpoint of morbidity and mortality. In short public health activities should have the same order of rank as need for service. We should therefore battle hardest against the factors that are providing the largest number of casualties.

The slums in the City are a perennial reproach to the Council and therefore every effort should be made to improve existing conditions.

In conclusion I wish to record my appreciation of the good work done by the higher and subordinate staff, both indoor and outdoor, who most willingly responded to the call for special effort, both, when I was acting as Chief Medical Officer of Health and on my taking up duties of my present office.

F. N. JAYEWARDENE,
Chief Medical Officer of Health.

February 25, 1948.

GENERAL SANITATION.

The general sanitary condition of the Town has not been satisfactory as desired. The use of fire-gaps as dumping grounds for rubbish, as galas for tethering cattle, as surface latrines and as pitches for the sale of perishable food-stuffs has created a new problem from the point of view of sanitation. Urgent appeals to those in authority to have them cleaned and maintained in a sanitary condition have fallen on deaf ears.

During the war years and even prior to that the sale of articles of food such as vegetables, fruits, fish, etc., was more or less confined to municipal and other markets with a few exceptions as in the Pettah, and the law authorizing action by the Police against street vendors was enforced. Since the Council relaxed the rule with regard to street vending, conditions which were bad even then, have become worse and have spread to all parts of the City.

This state of affairs, to say the least, is a disgrace to the premier City of the Island. The position should be reviewed without delay and the Council should take steps to prohibit sales at least on streets and pavements.

The maintenance of a high standard of sanitation in view of the difficulties enumerated has not been possible and has taxed the resources of the department to the utmost.

Added to this, repairs to buildings, drains, etc., in private premises is very difficult to get done owing to the prohibitive cost of labour and lack of materials. All this has tended to make matters very difficult for the department.

Part I.—Statistics.**I.—METEOROLOGY.**

Temperature.—The mean temperature for 1947 was 80·6° F. as against 81·6° F. for the previous year. The maximum monthly mean temperature 82·5° F. was recorded in the months of April and May and the minimum 78·4° F. in December, 1947.

Rainfall.—The rainfall for the year as recorded at the Colombo Observatory was 90·68 inches as against 95·83 inches for the previous year and the average of 87·90 inches for the previous ten years, 1937 to 1946.

Humidity.—The mean day humidity for the year was 78 per cent. as against 78 per cent. for the previous year. The maximum monthly mean day humidity was 82 per cent. in January and October and the minimum 75 per cent. in April and November.

II.—POPULATION.

The estimated mean population for 1947 was 362,230 and the density per acre 43·5.

The following table (1) gives the population by race :—

(1) Population by Race.

Race.	Population at Census of 1946.	Estimated mean population, 1947.
All races	355,374	362,230
Sinhalese	156,267	159,290
Tamils { Ceylon	34,514	35,180
{ Indian	44,289	45,143
Moors { Ceylon	43,635	44,477
{ Indian	16,054	16,364
Malays	11,130	11,355
Other Indians	17,415	17,751
Other races*	20,502	20,907
Unclassified population	11,568	11,763

III.—BIRTHS.

17,765 live births were registered during the year as against 19,699 the previous year.

This represents a rate of 49·0 per 1,000 population, lower than the rate for 1946 which was 55·2.

Corrected for non-residents the rate was 33·6 as against 37·8 for 1946.

The racial birth rates are given in table (2).

The Sinhalese show the highest crude birth-rate of 63·8 per 1,000 population, while the highest corrected rate has to be attributed to the Malays.

STILLBIRTHS.

702 stillbirths were registered representing a rate of 38·0 per 1,000 births, live and still, as against 37·9 for the previous year.

(2) Racial Birth-rates, 1947 (per 1,000 population).

Race.	No. of Births.	Birth-rate.	Birth-rate corrected for non-residents.
All races	17,765	49·0	33·6
Sinhalese	11,654	63·8	40·7
Tamils { Ceylon	1,301	37·0	32·9
{ Indian	924	20·4	19·4
Moors { Ceylon	1,994	44·8	43·8
{ Indian	170	10·4	10·4
Malays	546	48·1	47·2
Other Indians	304	17·1	15·5
Other races	872	41·7	36·1

* Includes Burghers, Europeans, and Others.

IV.—DEATHS.

8,327 deaths were registered during the year as against 9,288 for the previous year.

The crude and corrected death-rates were 23·0 and 14·2 respectively as against 26·0 and 15·9 for the previous year.

The Sinhalese had the highest death-rate followed by the Ceylon Moors and Malays.

(3) *Racial Death-rates, 1947 (per 1,000 population).*

Race.	No. of Deaths.	Death-rate.	Death-rate corrected for deaths in Hospitals.
All races	8,327	23·0	14·2
Sinhalese	5,349	34·1	15·7
Tamils { Ceylon	576	16·6	13·9
{ Indian	589	13·2	11·5
Moors { Ceylon	1,035	23·6	22·4
{ Indian	124	7·6	7·3
Malays	204	18·3	17·8
Other Indians	109	6·2	5·3
Other races	341	16·5	13·7

V.—PRINCIPAL CAUSES OF DEATHS.

Diarrhœa and enteritis were responsible for 809 deaths as against 873 in the previous year. Next in order came pneumonia with 764 deaths against 766 the previous year and phthisis with 527 deaths against 763 the previous year. Typhoid and paratyphoid fever accounted for 214 deaths, of which 131 were of non-residents, against 325 in 1946.

Compared with 1946, pneumonia, diarrhœa and enteritis, dysentery, influenza, congenital debility, malaria, and typhoid and paratyphoid fever showed a decreased mortality.

(4) *Principal Causes of Deaths.*

Cause of Death.	Number of Deaths.
Diarrhœa and enteritis	809
Dysentery	140
Pneumonia (including broncho-pneumonia)	764
Phthisis	527
Other tuberculosis	92
Premature birth	509
Congenital debility	380
Influenza	266
Typhoid and paratyphoid fever	214
Infantile convulsions (under 5 years)	153
Malaria	113

(5) *Certain Minor Causes of Deaths, 1947.*

Cause of Death.	Number of Deaths.
Cancer	236
Other diseases due to helminths	193
Ricketts	115
Tetanus	85
Diabetes mellitus	83
Ankylostomiasis	51
Diphtheria	28
Rabies	23
Whooping cough	5

VI.—INFANT MORTALITY.

The infant mortality rate for the year was 122 per 1,000 births as against 117 for the previous year and 139 the average for the previous ten years.

Corrected for non-residents the rate was 117 per 1,000 births as against 114 the previous year.

Incidence by Race.—Table (6) shows the racial infant mortality rates.

Principal Causes of Infant Mortality.—The infant mortality rates from the principal causes are shown in table (7). There was a decrease in the rate for Developmental Diseases as compared with the previous year, while pneumonia and bronchitis, digestive diseases, convulsions, tetanus neonatorum, tuberculosis and syphilis showed a slight increase. 47 per cent. of the total infantile deaths occurred within the first four weeks of life, the same as for the previous year.

(6) *Infant Mortality by Race, 1947.*

Race.	Number of Infant Deaths, 1947.	Number of Births, 1947.	Rate per 1,000 Births, 1947.	Rate per 1,000 Births, 1946.
All races	... 2,162	... 17,765	... 122	... 117
Sinhalese	... 1,424	... 11,654	... 122	... 113
Tamils { Ceylon	... 163	... 1,301	... 125	... 112
{ Indian	... 109	... 924	... 118	... 148
Moors { Ceylon	... 309	... 1,994	... 155	... 163
{ Indian	... 23	... 170	... 135	... 123
Malays	... 57	... 546	... 104	... 109
Other Indians	... 15	... 304	... 49	... 100
Other races	... 62	... 872	... 71	... 62

(7) *Principal Causes of Infant Mortality expressed as a percentage of Total Infant Deaths.*

Cause.	1946.	1947.
Premature Birth and Congenital Debility	41'1	41'2
Diarrhoeal diseases	... 20'7	21'2
Pneumonia	... 8'0	8'9
Convulsions	... 3'3	4'9
Other causes	... 26'8	23'8

(8) *Causes of Infant Mortality—Number of Deaths.*

Cause.	1946.	1947.
Developmental diseases	... 1,110	943
Digestive diseases	... 480	458
Pneumonia and Bronchitis	... 225	216
Convulsions	... 77	107
Tuberculosis	... 16	18
Tetanus neonatorum	... 15	16
Syphilis	... 6	10

(9) *Causes of Infant Mortality—Rate per 1,000 Births.*

Cause.	1946.	1947.
Developmental diseases	... 56	53
Digestive diseases	... 24	25
Pneumonia and Bronchitis	... 11	12
Convulsions	... 4	6
Tuberculosis	... 0'8	1
Tetanus neonatorum	... 0'7	0'9
Syphilis	... 0'3	0'5

VII.—INFECTIOUS DISEASES (GENERAL).

There were no cases of smallpox, cholera, or plague. Measles, chickenpox, and phthisis, however, showed a marked increase. The increased incidence of chickenpox and measles was due to several outbreaks of these diseases occurring in schools owing to failure to notify early and overcrowding of refugees during the floods and congestion due to house shortage. These two diseases, however, cause practically no deaths. Therefore they may as well be considered no longer a public health problem, because they assume only a minor rôle and it therefore appears to me that we should cease to spend time in controlling these and similar non-fatal diseases and devote more time to those the morbidity of which is high. In certain countries chickenpox and measles are non-notifiable diseases except during outbreaks of smallpox. Whether we should also adopt the same policy is a difficult point to answer because we are dealing with an ignorant public and therefore there is the danger of mild cases of smallpox escaping detection which might result in very serious consequences.

DIPHTHERIA.

There were 65 cases as against 101 the previous year showing a decided drop in the incidence.

WHOOPING COUGH.

There were 156 cases as against 284 the previous year.

PULMONARY TUBERCULOSIS.

The number of cases for the year was 1,012 as against 856 the previous year.

In no country are there trustworthy records of the numbers suffering from the disease. It has, however, a pre-eminent claim to be called the poor man's disease, as it occurs chiefly in the densely crowded "slum areas" which are occupied for the most part by the poor and ignorant labouring classes. Therefore unless the twin evils of bad housing and poverty, which are the main causal factors, are dealt with hand in hand with other preventive measures a reduction in the incidence cannot be hoped for.

B. C. G. VACCINE AS A PREVENTIVE AGAINST T. B.

Of late the value of B. C. G. Vaccine as an immunising agent against T. B. has been extolled by various individuals and has been recommended for general use as vaccine lymph is used as a protection against smallpox.

With reference to the use of B. C. G. Vaccine as a protective against T. B. I need only quote what Dr. Wilson, the Director of the Public Health Laboratory Service of the Medical Research Council, has stated in one of his lectures to members of the British Medical Association as recently as November, 1946 :—

"So far B. C. G. Vaccine has not been used in Great Britain except on selected groups for experimental purposes though it must be admitted that there is an insistent demand from workers for its introduction. Experiments carried out in various countries have so far been inconclusive and before its introduction on a large scale there should be definite proof of its efficacy."

We cannot do better than follow his advice though there are many local enthusiasts who have been advocating, in season and out, its use as a sure protection against the disease.

ENTERIC FEVER.

It is gratifying to report an improvement in the incidence of enteric fever during the year under review. The figures for the year 1947 are 243 as compared with 382 the previous year.

Enteric fever is a filth disease and where filth and bad sanitary conditions prevail most cases occur. And these conditions are also favourable for the spread of the disease.

Pail closets and fly-breeding places are the principal sources of infection. It is in the crowded and insanitary wards, that is mostly in the slum areas, that most of the cases occur. The majority of the premises that are sewer drained are in the residential areas of the Town where obviously the general sanitary conditions are superior.

The Council should therefore take up the work of sewer drainage on a more extensive scale than at present and bring to completion the sewerage of all premises within the City within the shortest space of time possible. The extension of the drainage system is one of the essential requirements in helping to bring about a reduction of the incidence of bowel diseases. The following figures are interesting. The number of assessed premises is approximately 58,300 and the number of drained premises is only 15,900 :—

Enteric Fever, 1947.

(a) Town cases	...	...	...	243
Fort cases	...	...	...	—
Extra-urban cases	...	...	...	441
(b) Total number of deaths...	...	...	...	213
Death-rate per 1,000 population	...	...	...	0.5
Death-rate per 1,000 population previous year	...	...	...	0.9
(c) Total number of deaths exclusive of deaths of non-residents in hospitals...	...	...	...	82
Corrected death-rate per 1,000 population	...	...	...	0.2
Corrected death-rate per 1,000 population previous year...	...	...	...	0.4

CONTINUED FEVER.

The number of cases of continued fever was 60 against 103 the previous year. Preventive measures adopted were the same as in the case of enteric fever.

MALARIA.

The total number of cases treated at the Municipal Free Dispensaries during the year was 3,449.

The Mosquito Squad, which consists of 12 Overseers and 24 labourers dealt with 344 complaints.

Number of premises visited	...	...	3,240
Number of actual breeding places attended to	...	...	7,484

Nowhere in the City were the carrier mosquito, the *Anopheles Culicifacies*, detected. Spraying with D. D. T. is done wherever it is found necessary.

Continuous headway against household mosquitoes cannot be made even with a large and well trained staff in the absence of co-operation on the part of householders and this is lacking.

DYSENTERY.

101 cases were registered as against 115 the previous year.

The total number of deaths was as follows :—

Number of Deaths from Dysentery.

		Number of deaths.	Number of deaths corrected for non residents.
Amoebic	...	41	—
Bacillary	...	84	69
Other and unspecified forms	...	15	8
Total	...	140	77

The majority of the cases occurred in the Mutwal area.

DIARRHOEA AND ENTERITIS.

The total number of deaths from this condition was 809 as against 873 the previous year. Corrected for non-residents the total number of deaths was 537 as against 385 the previous year. The crude and corrected death-rates were 2.2 and 1.0 per 1,000 population respectively.

BRONCHITIS.

97 deaths from bronchitis were registered as against 108 the previous year.

Exclusive of deaths of non-residents the number of deaths was 89 comprised as follows :—

	Number of deaths 1947.	Number of deaths 1948.
Acute bronchitis ...	37	46
Chronic bronchitis ...	42	45
Bronchiectasis ...	2	3
Unspecified ...	8	3
Total ...	89	97

INFLUENZA.

13,997 cases of influenza were treated at the Municipal Free Dispensaries as against 14,765 the previous year.

262 deaths, exclusive of deaths of non-residents in Colombo Hospitals, were registered, representing a rate of 0.7 per 1,000 population as against 0.9 the previous year.

PNEUMONIA.

The number of deaths registered during the year was 764 as against 766 the previous year.

Exclusive of non-residents the number of deaths was 531 representing a rate of 1.5 per 1,000 population. 59 cases were reported during the year.

VACCINATION AGAINST SMALLPOX.

Under the Vaccination Ordinance the Director of Medical and Sanitary Services is the proper authority to carry out vaccination throughout the Island, including the City of Colombo. Needless to say as pointed out by Dr. C. V. Aserappa in his report submitted recently to the Hon. the Minister for Health, this work should by right be in the hands of the Municipal Council for reasons given by him in his report.

VIII.—MATERNAL MORTALITY.

The maternal mortality rate corrected for non-residents was 8.9 per 1,000 births as against 12.4 for the previous year.

The puerperal septicaemia rate corrected for non-residents was 1.8 as against 5.4 for the previous year.

106 cases of puerperal pyrexia were registered during the year.

Part II.—Administration.

IX.—MUNICIPAL COUNCIL FREE DISPENSARIES.

Ten dispensaries functioned during the year out of a total of 11, one of which had to be closed down as the building was requisitioned by Service Authorities.

Tables (10) and (11) give the statement of work done at the Municipal Free Dispensaries and the number of persons treated during the year 1947.

(10) Work done at the Municipal Free Dispensaries, 1947.

Dispensary.	No. of patients treated.	No. of visits of patients.	Daily average attendance	No. of houses visited by Medical Officers.	No. of persons inoculated against Typhoid.
Slave Island ...	9,714	26,886	87	7	38
St. Paul's ...	11,077	23,207	75	6	19
Maradana South ...	15,035	30,685	99	90	23
Mutwal North ...	20,349	42,674	137	38	104
Wellawatte ...	16,691	36,378	117	23	142
San Sebastian...	9,915	23,718	76	13	23
Timbirigasyaya ...	11,303	21,594	70	29	—
Kollupitiya ...	6,186	16,698	54	29	27
Maradana North ...	9,241	20,680	66	14	17
New Bazaar ...	15,590	29,438	95	83	146
Total ...	125,101	271,958	876	332	539
Total for previous year ...	118,822	251,217	808	256	755

MUNICIPALITY OF COLOMBO.

(11) Number of Patients treated at the Municipal Free Dispensaries, 1947.

Month.	Slave Island.	St. Paul's.	Maradana South.	Mutwal North.	Wellawatte	San Sebastian.	Timbiri-gasyaya.	Kollupitiya	Maradana North.	New Bazaar.	Totals.
January	2,343	2,226	2,230	3,573	2,689	1,850	1,941	1,682	2,540	2,487	23,561
February	2,167	2,013	1,964	3,290	2,738	1,857	1,710	1,271	2,565	2,537	22,112
March	2,207	1,071	1,741	3,758	2,850	1,954	1,724	1,400	2,244	2,568	21,517
April	1,812	1,474	1,939	3,618	2,582	1,738	1,555	1,363	1,918	2,013	20,012
May	2,137	1,004	2,167	2,291	2,541	2,197	1,383	1,181	1,698	3,002	19,601
June	2,040	1,396	2,200	3,187	3,112	1,376	1,660	1,324	153	2,206	18,654
July	2,652	2,306	3,028	4,338	3,405	1,898	2,188	1,739	88	1,473	23,115
August	2,212	2,090	3,116	3,376	2,870	1,975	1,834	1,453	24	2,656	21,606
September	2,563	2,414	3,460	4,403	3,563	2,219	1,976	1,197	2,333	3,166	27,294
October	2,489	2,533	2,751	3,418	3,301	2,278	1,900	1,478	2,355	2,255	24,758
November	2,073	2,480	3,363	3,710	3,518	2,265	1,991	1,486	2,569	2,570	26,025
December	2,191	2,200	2,726	3,712	3,209	2,111	1,732	1,124	2,193	2,505	23,703
	26,886	23,207	30,685	42,674	36,378	23,718	21,594	16,698	20,680	29,438	271,958

X.—MATERNITY AND CHILD WELFARE.

The total number of mothers admitted for confinement to the three Maternity Homes was 849 as against 1,050 the previous year.

Weekly ante-natal clinics were held at the six Centres. The total number of ante-natal examinations conducted was 14,706 as against 15,063 the previous year.

Routine treatment of expectant mothers was also carried out at these Clinics for various minor ailments.

The average number of children given free milk feeds during the year was 177 as against 134 the previous year.

The following is a return of the ante-natal attendance at the Clinics. The figures include visits and re-visits :—

Centre.	Attendance.
St. Paul's	3,414
Slave Island	1,897
Maradana	2,646
Prince of Wales' Avenue	2,743
Modera	2,284
Wellawatte	1,719

XI.—MARKETS.

There are 16 Municipal Markets. Some of these have been practically untenanted even from the time of their completion.

The policy in the past with regard to the construction of some of our markets had been ill-considered in the sense that they were built in areas that did not really need them and also in size out of all proportion to the requirements of the areas where they have been erected. These should either be closed down and the land and buildings either sold and the money so realized expended on something that would be of benefit to the ratepayers or in the alternative structurally altered to enable a small portion to be used as a Market and the remainder for some other purpose such as a Community Centre.

While on the subject of Markets I wish to make the following observations :—

The Council has declared Market Zones for meat and fish. This should be extended for vegetables prohibiting the sale of vegetables within a prescribed radius of the market. Unless this is done, I am afraid, a good many of our markets will in time be deserted and left desolate.

St. John's Road Market, Edinburgh Market, and Kachcheri Road Market are the chief centres of distribution for the three main classes of food—fish, meat, and vegetables—for they supply shops, hotels and practically all the other markets in the City and even the suburbs. These markets are totally inadequate to deal with a large amount of trade owing to insufficient space and antiquated form of structure. These should be scrapped and a central market constructed to take their place. This is a matter of paramount importance and sanitary urgency.

XII.—DAIRIES.

The housing of cattle in private premises has assumed rather alarming proportions. Householders apart from keeping cows for producing milk for home consumption invariably make a lucrative business as well by sale of milk. It is time that steps were taken to control and check the evil. This is not possible for want of adequate legislation. Towards achieving this end I have recommended to the Council that fresh legislation be introduced and it is hoped that Council will give its approval to my recommendation.

XIII.—EATING-HOUSES.

There were 211 eating-houses registered during the year as against 206 the previous year.

As a result of fresh legislation introduced recently all Tea and Coffee boutiques as well as cafés are now classified under the term "Eating-house". Prior to that only establishments where cooked rice was sold were considered as "Eating-houses".

XIV.—FOOD INSPECTION.

The procedure laid down in Section 161 of Ordinance No. 29 of 1947 (which is the Ordinance now in operation) regarding the seizure of food stuffs unfit for human consumption is both irksome and difficult to carry out in practice especially when the quantities involved are large in proportion because in every instance every single article seized has to be produced before the Magistrate who is the authority under the Ordinance authorized to arbitrate whether the food is fit or unfit. This section requires amending along the lines as laid down in the Municipal Council by-laws in reference to the procedure to be adopted in the case of unwholesome foods seized.

I have been asked many a time why our Inspectors do not prosecute vendors exposing to dust and flies cooked food for sale on roadsides and pavements. The answer is that unlike in the case of vendors selling milk we have no powers to arrest vendors of this type. I bring it to the notice of the Council that the powers that now exist in respect of sellers of milk should be extended to the other type of vendor as well. This should be done in the interests of public health.

The report of work done by the Food Inspector during the year 1947 is given below :—

REPORT OF WORK DONE BY THE FOOD INSPECTOR
DURING THE YEAR 1947.

Visits to bakeries	...	...	271
Visits to dairies	...	...	301
Visits to Eating-houses	...	...	722
Visits to Public markets	...	...	343
Visits to Private markets	...	...	20
Visits to shops, boutiques, etc.	...	...	1,362

PROSECUTIONS AND CONVICTIONS.

Nature of offence.	No. of Prosecutions.	No. of Convictions.
Food exposure	80	66
Adulterated milk	16	12
Illicit vendors	16	13
Deficiency in fat (milk)	11	7
Selling putrid beef	1	1
Total	124	99*

Amount of fines ... Rs. 4,565

Samples sent to :—

City Analyst.	City Microbiologist.
Milk ... 30	Milk ... —
Fruit drinks ... 4	Fruit drinks ... 2
Herrings (tins) ... 2	Herrings (tins) ... 2
Aerated waters ... 26	Aerated waters ... 34
	Ice ... 1

* Cases struck off, discharged, or pending not included.

UNWHOLESOME FOOD SEIZED AND DESTROYED.

C and D Thick Sauce (26 oz.)	...	...	116 bots.
Desiccated coconuts	...	...	97 lb.
Breakfast cocoa $\frac{1}{2}$ lb.	...	...	1 tin
Cocoa powder	...	...	3 tins
Vanilla Custard powder	...	...	1 tin
Jam	...	...	11,148 tins
Pilchards	...	...	1 tin
Herrings in tomato sauce	...	...	32 tins
Herrings	...	...	13,542 tins
Salmon	...	...	3,789 tins
Sardines	...	...	605 tins
Dehydrated mutton	...	...	2 tins
Corned mutton	...	...	3,100 tins
Corned beef	...	...	277 tins
Stewed steak	...	...	42 tins
Steak and Kidney pudding	...	...	2,997 tins
Minced beef loaf	...	...	17 tins
Sheep tongue	...	...	121 tins
Boiled beef and carrots	...	...	24 tins
Meat and Beans	...	...	3 tins
Pork sausages	...	...	2 tins
Chopped ham	...	...	30 tins
Pram	...	...	68 tins
Bacon	...	...	2 tins
Ham paste	...	...	48 tins
Chef paste	...	...	6 tins
Chinchards	...	...	97 tins
Beans in tomato sauce	...	...	17 tins
Beans	...	...	1 tin
Heinz beans	...	...	36 tins
Baked beans	...	...	3 tins
Mutton broth	...	...	4 tins
Soup	...	...	92 pkts.
Turkey	...	...	27 tins
Australian carrots	...	...	15 tins
Cowlac	...	...	16 tins
Whole milk powder (112 lb. each)	...	...	3 barrels
Evaporated milk	...	...	1 tin
Ideal milk	...	...	366 tins
Cheese	...	...	6 tins
Australian ghee (2 lb.)	...	...	28 tins
Australian ghee (1 lb.)	...	...	65 tins
Pudding powder	...	...	16 tins
Jelly crystals	...	...	2 lb.
Chocolate powder	...	...	4 tins
Blanc mange powder	...	...	3 tins
Lemon curd	...	...	3 tins
Corn flour (56 lb. each)	...	...	4 cases
Canned fruit	...	...	8 tins
Apples	...	...	5 tins
Dried apricot slabs (25 lb. each)	...	...	91 cases
Dates	...	...	16 cwt. 66 lb.
Peaches	...	...	10 tins
Sultanas (56 lb. each)	...	...	52 cases
Dried plums (45 lb. each)	...	...	109 cases
Pickles (24 oz. bottles)	...	...	40 cases
Pickles (48 oz. bottles)	...	...	17 cases
Pickles (36 oz. bottles)	...	...	7 cases
Pickles (12 oz. bottles)	...	...	7 cases

UNWHOLESOME FOOD SEIZED AND DESTROYED—(contd.)

Mixed spices	...	...	...	147 pkts.
Mustard (local)	...	...	...	5 bots.
Gravy colouring	...	...	...	32 tins
Savoy gravy browning	...	...	...	35 tins
Camp pie	...	...	...	44 tins
Herrings	...	...	... 4 tons	3 cwt.
Puffed wheat	...	...	...	82 pkts.
Fish	...	...	...	60 lb.
Beef	...	...	...	29 lb.
Sheriff Desert powder	...	...	...	21 tins

XV.—LAUNDRIES.

In 1946 there were 209 registered laundries in Colombo. During the course of the year 1947, 6 laundries were discontinued and 7 new laundries registered bringing the total to 210 at the end of 1947.

XVI.—LAVATORIES.

There are 84 public lavatories and 2 public urinals in various parts of the Town. These serve a very useful purpose not only as a convenience for the travelling public, but also are useful in congested areas in preventing surface pollution and thereby help in checking the spread of communicable diseases due to infection by Alvine discharges. They also help to improve the general sanitary condition.

Three public lavatories are urgently needed—1 at Galle Face and 2 in Fort. These should be erected at the earliest opportunity and should be of the subterranean type. I think it will be a good thing if hereafter all our public lavatories are constructed below ground level.

XVII.—DISINFCTION AND CLEANSING.

The following statement shows the work done by the Disinfection and Cleansing Gang :—

Number of premises cleansed	...	...	5,073
Number of cartloads of rubbish removed	...	...	964
Number of cartloads of rubbish buried	...	...	322
Number of cartloads of rubbish burnt	...	...	145
Number of drains disinfected	...	...	453
Number of latrines disinfected	...	...	524

Ambulance Station and Steam Disinfecting Station.—The report of work done at the Ambulance Station and Steam Disinfecting Station during the year 1947 is as follows :—

AMBULANCE STATION.

Mileage done	...	...	18,759'3
Number of patients removed	...	...	2,616
Number of dead bodies removed	...	...	199
Number of trips to the I. D. H., Angoda (non-chargeable)	...	...	2,096
Number trips to the I. D. H., Angoda, Shipping (chargeable)..	...	...	17
Other miscellaneous trips	...	...	1,822

STEAM DISINFECTING STATION.

Number of articles steam disinfected	...	...	7,616
Number of van loads steam disinfected	...	...	504
Number of cradle loads steam disinfected	...	...	504

XVIII.—STAFF CHANGES.

Staff Officers.—Dr. F. N. Jayewardene, Deputy Medical Officer of Health, was appointed to the vacant post of Chief Medical Officer of Health with effect from May 1, 1947.

The following appointments and transfers also took effect on the same date :—

Dr. H. Ratnarajah, Medical Officer of Health, Colombo South, appointed to the post of Deputy Medical Officer of Health.

Dr. L. E. J. Poulter, Medical Officer of Health, Colombo North, transferred as Medical Officer of Health, Colombo South.

Dr. V. Nadarajah, Medical Officer (Epidemiology and Vital Statistics), appointed to the post of Medical Officer of Health, Colombo North.

Dr. L. D. P. Dharmaratne, Medical Officer, Mutwal Dispensary, was appointed to the post of Medical Officer (Epidemiology and Vital Statistics), on March 7, 1947.

Retirements.—Dr. C. H. Gunasekera, Chief Medical Officer of Health, retired from service on May 1, 1947.

Dr. (Mrs.) L. G. P. Goonewardena, Assistant Medical Officer, Maternity and Child Welfare, retired on July 8, 1947.

Subordinate Staff—Retirements.—Mr. Neil Schokman, Sanitary Inspector retired on July 1, 1947.

The posts of Inspector of Insanitary Buildings and Inspector in charge of Plague were suppressed and the Inspectors, Messrs. M. M. Molligode and S. C. Forbes, were reverted to Ward work on February 26, 1947, and April 9, 1947, respectively.

Appointments.—Mr. P. D. Perera, Market Supervisor, Kotahena, was appointed on May 1, 1947, as Sub-Inspector in charge of Rat Destruction and the work of Improvements to Buildings under Plague Regulations was placed under his supervision from October 1, 1947. The work is now more efficiently carried out and it is proposed to place Fumigation Work as well in his charge.

Annexure A.

REPORT OF THE CITY MICROBIOLOGIST FOR THE YEAR 1947.

1.—LABORATORY.

The activities of the laboratory during the year 1947 were on a slightly lower level than during the preceding year. The number of clinical specimens totalled 4,391 and of water samples 561. The diminution is partly due to the fact that the gas strike in June seriously interfered with the working of the laboratory as we have to rely on gas for the sterilization of our glassware and the preparation of media.

The water situation proved to be satisfactory during the first half of the year. During this period, in 225 samples *B. coli* was found to be present four times and *B. lactis aerogenes* 31 times. The corresponding figures for the second half of the year are : 336 samples examined, *B. coli* present four times, *B. lactis aerogenes* 128 times. This deterioration is to be connected partly with the sudden flooding of the catchment area as experienced several times during the period under report and partly with extensive cleaning operations which usually are followed by a brief period of deterioration. The last ten days of 1947 proved to be satisfactory. Unfortunately, the time seems still remote when we can expect to enjoy the benefits of the Kalatuwawa scheme. The present arrangements at Kalatuwawa are of a very primitive nature, and in cases of sudden and heavy rainfall, the desirable standard of purity can scarcely be maintained. Considering the heavy demand on water in Colombo town and the port of Colombo, the implementation of the Kalatuwawa scheme seems a very urgent requirement.

There was an increased demand for typhoid vaccine, and approximately 6,250 c.c. of this vaccine were issued, mostly to the Department.

Plague, as in previous years, was absent in all the rats examined (11,123).

The prevention of tuberculosis by vaccination on which I reported previously was studied by me in Australia during my leave (from 1st June till 25th November). I took the opportunity of discussing matters with Dr. E. A. North, Assistant Director of the Commonwealth Serum Institute in Melbourne, who had just returned from a world tour studying B.C.G. vaccination. He imparted to me valuable personal experience and information and let me have sub-cultures of strains used for vaccination by various institutions in Europe. I furthermore attended the Science Congress in Perth where B. C. G. was discussed by a team of scientific workers from Adelaide, and visited later their laboratory in Adelaide and made myself acquainted with their technique. The necessary tools were obtained from Bergen and Adelaide, and a simple pattern of vaccinating instrument is being made by the Municipal workshop following the specification obtained in Melbourne from Dr. North. If some simple laboratory facilities could be provided, I see no difficulty regarding the preparation of B. C. G. vaccine in Colombo.

During my absence the Deputy City Microbiologist acted for me.

Some changes in the Staff occurred in connection with the retirement of one attendant whose place was filled by the peon.

2.—ANALYSIS OF ROUTINE WORK.

(a) *General Distribution of Routine Specimens examined during 1947.*

Clinical specimens	...	4,391
Town Water	...	561
Rodents for Plague :—		
Port Commission	...	559
Public Health Department...		10,564
		<hr/>
		16,075
		<hr/>

(b) *Distribution of Clinical Specimens—1947.*

		Number examined.	Number positive.
Diagnostic service for practitioners	{ Enteric	843	358
	{ Human Plague	0	0
	{ Tuberculosis	313	41
	{ Dysentery	424	23
	{ Diphtheria	347	42
	{ Ova	165	57
	{ Malaria { Parasites	41	4
	{ Malaria { Serological test	24	5
	{ Various	174	15
	Public Health Department	{ Enteric	513	13
{ Human Plague		0	0
{ Tuberculosis		175	32
{ Dysentery		95	3
{ Diphtheria		1,020	14
{ Ova		31	13
{ Malaria { Parasites		3	0
{ Malaria { Serological test		0	0
{ Various		223	3
			<hr/>
		4,391	623
		<hr/>	<hr/>

Annexure B.

REPORT OF THE CITY ANALYST FOR 1947.

The routine Analytical work of the Colombo Municipality after being in abeyance for over a year was recommenced with effect from April 1, 1947, with the appointment of a City Analyst in succession to the late Mr. Alexander Bruce, whose untimely death was a great loss to the Island.

During the year ending December 31, 1947, altogether 754 samples were analysed, a summary of which is appended below:—

Samples.	Total.	Passed.	Percentage.
Cow milk	543	214	39.4
Buffalo milk	55	14	25.5
Compost manure	5	—	—
Aerated waters	34	29	83.2
Fruit drinks	4	4	100
Other foods	1	1	100
Gas test	8	—	—
Town water	104	103	99.03
Total	754	365	

It is significant that from June, 1947, the percentage of samples of Cow Milk that was up to standard showed an increase reflecting a slightly improved Milk supply position in Colombo. Regarding Buffalo Milk, it is felt that many a vendor took advantage of the lower standards for Cow Milk to pass off with impunity the former for the latter. Statutory obligation on the part of Registered Milk Vendors to house only cows or buffaloes in a dairy would go a long way in putting an end to this undesirable practice.

Five samples of Aerated Waters were found to contain excessive quantities of metals deleterious to health. As lead was found in excessive quantities in all the condemned samples it is probable that uncoated lead tanks and/or pipes have been used in the plant producing those samples. Of the 4 samples of Fruit Drinks submitted 2 contained a preservative which has long since fallen into disuse and is at present prohibited.

A suspected case of food poisoning by partaking of a meal partly composed of dried Green Peas was, on investigation, found not to be due to the suspected sample of peas.

The gas tests reveal that the supply was satisfactory during the period under survey, and the same was true of the Town water supply, except once, when a foul water sample was detected, which on investigation proved to be due to the presence of dead fish in the mains.

Samples of Compost Manure submitted for analysis by the Municipal Engineer were found to be of the usual standard.

S. M. CHANMUGAM,
City Analyst.

Annexure C.

REPORT OF THE MEDICAL OFFICER, MATERNITY AND CHILD WELFARE, FOR THE YEAR 1947.

I think we can justly congratulate ourselves on the completion of another year of useful service. The absence of the Assistant Medical Officer, Maternity and Child Welfare, from February last and her subsequent retirement from service in June along with the fact that our nursing staff was understaffed right through the year handicapped our activities to some extent. These vacancies were filled recently and we will soon be getting back to our normal programme of work.

The attendance at our ante-natal and infant care clinics and the number of deliveries in the District and in the Municipal Maternity Homes by our midwives are shown in the tables annexed. Although a slight fall in numbers is noticed it is not indicated that our service is in any way less popular.

I wish to commend to the consideration of the Council once again the care of the Expectant Mother. My appeal is based on several years of close study of the situation. Some of these mothers have to struggle for their bare physical necessities while there are others who have nothing between them and starvation. I once advocated giving these ill-fed unfortunates daily one square meal and a pint of milk. I can see that my scheme in this direction is beset with difficulties and will be very expensive, but something has to be done. Palliatives are worse than useless. Unless a mother is healthy and physically fit she cannot produce a strong and healthy child. Money spent in this direction will be money well invested and will in the maturity and fulness of time yield a rich harvest.

J. E. D. MENDIS,

February 18, 1948.

Medical Officer, Maternity and Child Welfare.

Attendance at the Ante-Natal, Baby and Post-Natal Clinics during the Year 1947.

Child Welfare Centre.	Ante-Natal Attendance. (Primary & Revisits.)	Post-Natal Attendance. (Primary & Revisits.)	Attendance at Baby Clinics. (Primary & Revisits.)
St. Paul's ...	3,414	181	471
New Bazaar ...	2,743	121	518
Modera ...	2,284	152	547
Maradana ...	2,649	54	294
Slave Island ...	1,897	64	425
Wellawatte ...	1,719	72	390
Total ...	14,706	644	2,645

Number of Cases conducted by the Municipal Midwives during the Year 1947.

	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL
Child Welfare Centre, St. Paul's	57	44	45	38	28	33	27	43	38	37	40	29	459
Child Welfare Centre, New Bazaar ...	50	43	37	38	22	30	33	25	32	45	38	22	415
Child Welfare Centre, Modera	20	19	17	13	13	18	16	19	12	21	20	15	203
Child Welfare Centre, Maradana	66	52	71	58	61	60	59	59	57	55	66	60	724
Child Welfare Centre, Slave Island ...	38	39	48	40	51	44	33	39	36	40	48	42	498
Child Welfare Centre, Wellawatte ...	19	16	24	16	22	15	18	17	19	19	22	25	232
Maternity Home, St. Paul's ...	30	24	24	23	27	28	27	27	32	23	32	22	319
Maternity Home, New Bazaar	27	15	28	22	34	18	18	22	27	17	35	32	295
Maternity Home, Modera ...	19	21	27	25	15	17	21	25	13	17	16	19	235
TOTAL ...	326	273	321	273	273	263	252	276	266	274	317	266	3,380

Number of Children to whom Free Milk was issued during the Year 1947.

Centre	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL
St. Paul's ...	32	32	30	22	20	18	19	19	18	18	14	15	257
New Bazaar ...	29	30	32	26	26	26	29	26	24	24	25	25	322
Moderá ...	33	27	22	26	28	28	30	28	33	31	29	28	343
Maradana ...	24	28	30	30	29	35	39	40	37	47	42	35	416
Slave Island ...	38	39	48	40	51	44	33	39	36	40	48	42	498
Wellawatte ...	23	27	25	19	24	23	24	25	23	21	21	31	286
TOTAL ...	179	183	187	163	178	174	174	177	171	181	179	176	2,122

Annexure D.

REPORT OF THE SPECIAL OFFICER, CHEST DISEASES.
TUBERCULOSIS SURVEY.

ANNUAL REPORT—1947.

Five clinics were held and all our patients were referred to the Anti-Tuberculosis Institute for X-ray diagnosis, specialized treatment and admission to chest hospitals as the Council had not during the year been able to provide for the Service all the equipment and facilities necessary for the work. The usual routine prescribed by the Chief Medical Officer of Health has been rigidly followed in every case.

I am now in a position to state that all the equipment and facilities for an effective Anti-Tuberculosis campaign in the City as outlined in my report to the Council in 1940, are now ready. They are:—

1.—THE CENTRAL CHEST CLINIC, DARLEY ROAD.

The building was renovated and will be ready in a fortnight to be used as a centre for diagnosis, observation, and disposal of cases.

2.—EQUIPMENT.

We have obtained all the equipment for diagnosis, induction of Pneumothorax and refills.

3.—X'RAY PLANT.

A modern X'ray plant of 200 m.a. capacity was installed. The apparatus is suitable for the eventual use in Mass Miniature photography. The instrument is one of the best imported to Ceylon and will be used when an organization is set up for the periodic examination of a selected section of the community and eventually the entire City population for the purpose of combing out all spreaders and others suffering from hidden or wrongly diagnosed pulmonary tuberculosis. In conjunction with preventive measures, miniature film photography will in time eradicate tuberculosis as effectively as vaccination has prevented smallpox.

4.—FIELD WORK.

The six Health Visitors have gained considerable experience in Tuberculin testing of contacts and home visiting of patients.

5.—HEALTH EDUCATION AND PROPAGANDA.

A projector and a number of films were imported. In the absence of an officer for Health education and propaganda whose post was recently suppressed, it is my intention to make use of the X'ray Technician and Health Visitors for this work.

6.—CARE AND AFTER-CARE WORK.

The work is at present being done by the Health Visitors. But I should like to see a Committee of Volunteers appointed to work under the supervision of the Service. It is one of the recommendations of the Tuberculosis Committee of 1945.

7.—HOSPITAL ACCOMMODATION FOR CITY PATIENTS.

The Central Government has so far provided beds for City cases according to the accommodation available. Only a few cases have come to our notice of patients who were not segregated long enough and of others who had to be discharged in an infectious state to make room for more deserving cases. The number of beds available in Ceylon for all T. B. patients will continue for a long time to be inadequate. Consequently I recommend once again my scheme for "Organized Home Treatment" for those who are unable to leave home or cannot be admitted to Chest Hospitals for want of beds. This suggestion was endorsed in the Report of the Tuberculosis Committee (Sessional Paper III, 1945, 6 (8)).

8.—CO-ORDINATION.

Government Institutions such as the General Hospital, Anti-Tuberculosis Institute, Chest Hospitals, Department for Ear, Nose, and Throat, School Medical Officer, have given their co-operation. There remains the relations with Medical Practitioners and the Public. Now that the Municipal Tuberculosis Service is fully equipped, it will now be possible to secure their fullest co-operation, confidence, and sympathy.

Other aspects of Prevention.

1.—B. C. G. VACCINATION.

I submitted a report during the course of the year for the immunization of negative reactors to Tuberculin with B. C. G. vaccine. The method has been well tried during 20 years and has passed the stage of experiments. The cultures are now with the City Microbiologist and as the equipment necessary costs so little, I suggest a start be made immediately in this method of prevention.

2.—PREVENTORIUM.

The offer of a Colombo resident to provide Rs. 25,000 to build a Preventorium for the care of infected children and segregation of others inoculated with B. C. G. vaccine remains still open. If the Council were to provide the site, the Central Government, I am sure, will maintain the establishment.

3.—FUNDS FOR T. B. WORK.

In handing the T. B. Work to the Municipal Council, the Central Government stipulated that a minimum amount of Rs. 25,000 should be spent on the Service. The amount now spent is twice the amount and if more money is required the Public will only be too pleased to contribute to a fund if an annual appeal is made to them. In other countries, the appeal takes the form of the sale of "Christmas Seals" or "Charity Stamps". They are made the occasion for Health Education and Propaganda and to draw the attention of the Public to Tuberculosis as a grave community problem or a social menace and as a disease which can be prevented and the urgency of measures to this end.

4. With the Hospital beds provided by the Government, the Municipal Tuberculosis service is now a self-contained unit. But it has certain definite relations with the Government's activities in regard to which there should be no possibility of misunderstanding. The City Scheme should dovetail into the Island wide scheme so that while co-ordination is secured there is no overlapping of work and no chance of administrative deadlock.

The Anti-Tuberculosis Institute should not be used as a clinic but as an Administration centre for the whole Island and subsidiary Chest Clinics established in the suburbs of Provincial Towns.

If the Anti-Tuberculosis Institute is used as a clinic for outside patients, it would be impossible to prevent the influx of patients to the City, who will swell the already large floating population which make the work of the Municipal Service difficult. In actual practice, outstation patients are left in the hands of the Municipality.

MILANIUS DE ALMEIDA,
Special Officer, Chest Diseases.

February 21, 1948.

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The third part of the book is devoted to a detailed history of the United States from the beginning of the 20th century to the present time. It covers the Progressive Era, the World Wars, and the Cold War.

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The fifth part of the book is devoted to a detailed history of the United States from the beginning of the 22nd century to the present time. It covers the future of the United States and the world.