

Health Committee's report / City of Melbourne.

Contributors

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CITY OF MELBOURNE



REPORT OF HEALTH COMMITTEE

FOR THE

YEAR ENDED 31st DECEMBER, 1947

Adopted by Council on 27th September, 1948

RCB / 23(j)

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REPORT OF THE HEALTH COMMITTEE FOR THE YEAR 1947

MEMBERS OF COMMITTEE

Councillor Boulton (Chairman)
Councillor Brens
Councillor Coleman
Councillor Holland
Councillor E. L. Morton
Councillor Sir Harold Gengoult Smith

The Health Committee submits for the information of the Council a report regarding the work carried out under the direction of the Committee during the year ended 31st December, 1947.

REPORTS OF OFFICERS

A report by the Medical Officer of Health (Dr. John Dale) upon the work of the Health Department during 1947, and upon the health of the inhabitants of the City generally, is attached hereto, together with reports by Dr. Hilda Kincaid upon child welfare work, by Dr. Hilda Bull upon infectious diseases, by Mr. T. G. O. Jordan, the Chief Health Inspector, on the routine work of the Department, by Messrs. Dunn, Son & Stone, City Analysts, by Mr. Reeve, Dental Officer, upon the work of dental centres at Kensington and North Carlton, and by the Senior Bacteriologist of the Bacteriology Department, University of Melbourne. Full details of the various health activities of the Council are contained in these reports.

CHILD WELFARE

The report of Dr. Hilda Kincaid upon the work of the Child Welfare branch gives details of the year's activities, and statistics for the year reveal that, although the statistics for the State show the highest birth rate and the lowest infantile death rate ever recorded, the number of births recorded (1,961) in the Melbourne area showed a decline as compared with that of 1946 (2,033).

However, when compared with the minimum of 1,036 births recorded in 1932, the number of births is still very high.

The amount of milk distributed under the Council's scheme of assisted milk distribution and the number of families assisted thereunder shows an appreciable rise as compared with last year. This rise seems to mark the turning point in what had been a diminishing number of families requiring assistance during the years since the outbreak of war, and may signify a turn in the tide of general economic prosperity.

The Committee again continued its assistance to parents in indigent circumstances by the supply of milk, the total expenditure for the year being £1,415/19/5, of which the amount of £469/5/6 was refunded by parents.

The two scholarships offered by the Council to encourage girls to enter the Kindergarten Training College for training as kindergarten teachers to staff City Kindergartens attracted 28 applicants of good personality and ability, and there are now four students studying under the Council scholarships.

During the year, the conversion of the Kiosk situated in Fawcner Park to a modern Kindergarten and Baby Health Centre was completed and the building was handed over to a Committee of Management of very enthusiastic local ladies interested in Child Welfare work to control. A kindergarten catering for 25 children is at present being conducted as well as a play group and all day care group, catering in all for approximately 55 children. The photographs of the Centre embodied in this report show what a definite acquisition this Centre is to local residents.

In connection with the policy adopted by the Council regarding the extension of kindergartens and creches in the City of Melbourne, the Committee during the year purchased two large properties situate No. 5 Derby Street, Kensington, and No. 481 Canning Street, Carlton, which, when the opportunity presents itself, will be altered and extended to provide additional kindergarten facilities in these districts for the benefit of ratepayers.

As the last statistical analysis of Child Welfare records were taken out in 1937, the Committee arranged with the Melbourne University for a number of psychology students to summarize the records of the Health Department in order to obtain over a decade the height, weight, etc., as allied to age, of the children attending the various infant welfare centres in the City of Melbourne, and from Dr. Hilda Kincaid's report on the finalization of the summary, it will be seen that both the height and weight lines for both babies and for pre-school children have increased and the average weight line for babies, especially after six months of age, is very considerably higher.

It is also gratifying to note that the incidence of certain defects such as carious teeth and unhealthy tonsils is approximately 25 per cent less than it was in 1936.

The maintenance grants made by the Council to kindergartens and creches for the year 1947 were the same as for previous years, viz., £1,000 and £500 respectively.

The total amount expended by the Council on the conduct and maintenance of the Child Welfare Centres in the City of Melbourne during 1947 was £9,499/5/11, of which £2,267/10/- was contributed by the State Government.

Since 1927, the Council has spent £105,443/12/8 on the construction, equipment and maintenance of Child Welfare Centres, Kindergartens and Creches.

The Committee desires to again record its appreciation of the services of all those who have contributed to the carrying out of child welfare work throughout the year, especially by the Committees of Management of the Lady Huntingfield Free Kindergarten, the Hopetoun Free Kindergarten and the Fawkner Park Pre-School Centre, and the voluntary workers in all the other kindergartens and creches in the City of Melbourne.

INFECTIOUS DISEASES

The accompanying reports of the Medical Officer of Health and Dr. Hilda Bull show the amount of preventative work carried out against infectious diseases.

The outstanding feature of the year was that the incidence of diphtheria in the City was again the lowest ever recorded, there being only 21 cases—7 males and 14 females.

Although the number of pre-school children immunized against diphtheria was the largest yet recorded, the number cannot be regarded as satisfactory in view of the recent great increase in the birth rate.

In view of the increasing demand for immunization against whooping cough, it is to be hoped that there will soon be available the combined prophylactic against diphtheria and whooping cough which is at present being tested for the Commonwealth Serum Laboratories.

INFECTIOUS DISEASES HOSPITAL—FAIRFIELD

The Council's contribution towards the Queen's Memorial Infectious Diseases Hospital to £10,066/8/1.

The contributions for the past five years were:—

1943	£12,001	4	0
1944	12,414	11	4
1945	12,325	10	2
1946	9,957	2	2
1947	10,066	8	1

FOOD SUPPLIES

The customary systematic inspections were carried out and the results can be regarded as relatively satisfactory. That they are not more so is mainly due to the continued and perhaps increasing difficulty which proprietors, in the face of heavy patronage, have to meet in securing satisfactory labour, and the continued difficulties which are only slowly, if at all, improving in getting carried out the repairs and renovations which are ordered in many premises by the Department.

Of the total number of milk samples examined by chemical analysis, only six, or 1.8 per cent, failed to comply with the standard, and it is pleasing to state that deliberate adulteration appears to be almost, if not quite, non-existent.

The average composition of the samples was again excellent, the average percentage of fat being 4.4, which is a new high record.

The usual bacteriological examination of milk samples, unfortunately, had to be suspended in April, so that it is impossible to make comparisons with the average results of former years.

It is hoped that the Director of Veterinary Research Institute may be able, before long, to resume the regular bacteriological examinations of samples taken in the City.

HOUSING

Once again it is regretted that, as far as the City is concerned, it is impossible to report any progress has been made in the improvement of housing conditions; in fact, during the year, due to the extreme shortage of materials and the difficulty experienced in obtaining contractors or tradesmen able and willing to carry out maintenance and repair work, the housing conditions have on the whole deteriorated.

STABLES

During the year, the Council approved of the preparation of a By-law to control the use and erection of stables in the City of Melbourne; so, on the 3rd September, 1947, By-law No. 276 for registering and regulating stables within the City of Melbourne was published in the Victorian Government Gazette and came into force on the 4th September, 1947.

The Committee desires to place on record its appreciation of the services of all officers under its control during the past year.

(Signed) G. R. BOULTON, Chairman.

(Signed) G. J. DEAN, Acting Town Clerk.

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REPORT OF THE MEDICAL OFFICER OF HEALTH

Health Department,
Town Hall Chambers, Melbourne.

16th June, 1948.

The Chairman and Members,
Health Committee.

Gentlemen,

I have the honour to present my report for the year 1947.

The health of the community has continued to be reasonably satisfactory, and the prevalence of infectious diseases to be low and without any epidemic outbreaks. A similar state of affairs appears to prevail elsewhere in Australia and, though conditions of post-war privation continue to exist in many parts of Europe, and probably, too, in parts of Asia, there have been no reports of the development of hazards, apart from that of war, likely to threaten the health of distant peoples.

It is well recognised, nevertheless, that even in the most fortunate communities the health of the people is far from any ideal and that medical science falls far short of a complete understanding of, and capacity to deal with, many of the existing health risks and problems; and in accord with this there is evidence in many parts of the world of an increasing interest in and development of medical research, with the foundation of new institutes, travelling scholarships and studentships and much inter-change of scholars.

During the year I had the privilege of visiting and spending four months in Great Britain after 28 years absence. I was welcomed with special kindness and consideration as an Australian, and saw something and heard much of the development of Public Health in the principal country of its origin.

As delegate of the University of Melbourne I attended the Congress of the Royal Sanitary Institute at Torquay, held from June 2nd to June 7th, at which were present over 2,500 delegates, including the Principal Medical Officers of the Ministries of Health of England and Wales and of Scotland, representatives from all the Universities in Great Britain, delegates, both professional and lay, from practically all the Local Health Authorities in the United Kingdom, and delegates from other Dominions, from the United States and from many other countries.

The future development of public health work, the problems of maternity and child welfare and of the ageing and aged sections of the population, and many other matters were discussed at this Conference, and it was very fortunate that so early in my visit I was able to meet many leaders in public health work, including some colleagues of my early days.

Later on in London I attended, as delegate of the Victorian Baby Health Centres Association, an International Congress on Maternal and Infant Welfare which was held under the auspices of the Ministry of Health, and also the International Conference of Physicians, held under the auspices of the Royal College of Physicians, at which I took part in the very informative and interesting meetings of the section of Social Medicine, under the presidency of Sir William Jameson, Principal Medical Officer of the Ministry of Health, on whose invitation I attended the Conference.

I was able to see a good deal of the housing work and current public health activities in the City of Birmingham, where I received my first appointment in the field of Public Health 37 years ago, and saw something of public health activities in Glasgow, Aberdeen and London.

I was much impressed with the friendliness, good manners and patient fortitude of the people in face of the very restricted food supply and other post-war difficulties, and with the excellence of the rationing system, whereby adequate supplies of milk and essential vitamins were made available to expectant and nursing mothers, and to children, and had maintained the health of that all-important section of the community at a high level, higher perhaps than it has ever been before. It was notable, also, that the bread supply, though perhaps not so attractive aesthetically as it had been in former times, was both ample and of a higher nutritive quality than had been available for generations.

One was impressed, also, by the magnitude of the housing problem, which, in spite of the extensive work undertaken between the two wars, still presents very great difficulties, both on account of the destruction due to bombing, and of the number of large industrial cities and towns whose working-class areas were built mainly in the first half of last century, and must now be rebuilt. The problems of Melbourne and Sydney are minor by comparison.

The attractions and interest of that wonderful Homeland, with its centuries of history and tradition, of culture and civilisation, are so great that the four months passed, retrospectively, in the twinkling of an eye, and I left with great regret and with many attractive engagements unfulfilled; but I am very grateful to the members of Health Committee and of Council for their consideration in making the visit possible.

I had hoped to be able to return by the United States, as I made contact in England with officers of the United States Public Health Service and professors of Public Health there, but, owing to dollar difficulties, this was unfortunately not possible.

VITAL STATISTICS

Figures for the last ten years and the averages for the preceding five year period are shown in Table 1.

TABLE I.

Year	Estimated Mean Population	No. of Births	Birth Rate	No. of Deaths	Death Rate	Infantile Mortality Rate per 1000 live Births
1933-37 (5 year average)	92,607	1144	12.6	1139	12.3	48.4
1938	92,900	1156	12.8	1135	12.6	39.8
1939	93,200	1105	12.2	1208	13.4	36.2
1940	93,650	1257	13.7	1210	13.3	54.1
1941	95,400	1303	14.2	1186	12.9	36.8
1942	95,500	1499	16.1	1283	13.0	44.0
1943	99,393	1804	18.1	1226	12.3	43.8
1944	100,485	1655	16.5	1227	12.2	32.0
1945	101,130	1709	16.9	1225	12.1	26.3
1946	105,300	2033	19.8	1177	11.5	23.1
1947	99,868	1961	20.2	1281	13.2	35.7

The number of births recorded, 1961, though somewhat less than that of last year, is still very much higher than the averages of the three preceding five-year periods, namely 1740, 1199 and 1116 respectively.

During the year an Australian census was held, the first since 1933, and as a result, the population of the City shows an apparent fall to 99,868 from the estimated population of 105,300 in 1946. In correspondence with this apparent reduction in the population the birth-rate, 20.2, calculated per 1,000 inhabitants was higher in 1947 than in 1946, in spite of a lesser number of births, but there is no doubt that the estimated population last year was too high and that the birth-rate for last year was, in fact, higher than that of 1947.

The infantile mortality rate for the year is not a favourable one, being 35.7 as compared to 23.1, 26.3 and 32.0 for the three preceding years. Compared, however, to the averages for the three preceding periods of five years, namely, 33.8, 41.7 and 48.4, it is relatively satisfactory, and, as the Government Statist never fails to point out, the numbers dealt with in compiling the rates of the individual municipalities of the metropolitan area are so small that considerable fluctuations, due to chance, are both inevitable and insignificant. This element of chance is illustrated in the report of Dr. Kincaid, which points out that whereas in 1946 there were eleven deaths of City children between the ages of 1 and 4 years, there was, in 1947, only one death. Nevertheless, the general trend of the death-rate as illustrated by the averages for the five-year periods is clearly significant and encouraging.

The general death-rate for Melbourne City was 13.2, which is higher than any rate recorded since 1940. The rates in recent years, however, which are shown in the table, are without doubt rather too low, owing to over-estimation of the City's population.

CHILD WELFARE

The report of Dr. Hilda E. Kincaid upon the work of the child welfare branch gives details of a year's work which, in spite of the relatively large number of infant deaths, is satisfactory both in quantity and quality. The volume of work in the centres has been greater than ever before, in consequence of the recent rises in the birth-rate, and the City is undoubtedly fortunate in having such a competent and experienced staff in this branch of the work.

During the year the re-modelled health centre and new kindergarten in Fawkner Park, South Yarra, came into action, and the latter presents a valuable addition to our facilities for the care of the pre-school child. Though it is relatively small, having accommodation at one time for only twenty-five children, the use of part of the accommodation for alternate play-groups enables us to keep in constant touch with fifty-five children. The kindergarten is beautifully sited and equipped, and is conducted by an enthusiastic and highly competent committee, of whose services we are very appreciative.

It is encouraging also to learn that the Church of England has had prepared plans for a new kindergarten to house that conducted for so many years in the old church hall at St. Mary's, North Melbourne.

It was said in this report last year that the most encouraging event of the year 1946 was the decision of the State Government to increase the annual grant per child in approved kindergartens from £4 to £6, and it must therefore be said that the most encouraging event of 1947 was the decision of the State Government to further increase the annual grant from £6 to £9 per child. This is indeed a gratifying recognition of the need for care of the pre-school child, and a very great stimulus to the large and growing body of workers in this important branch of hygiene. Public interest in the work, and the demand for more organised facilities for pre-school children, have continued to grow and have been stimulated by recognition of the fact that these facilities are a great help to a large section of the hardest workers in the community, namely, the mothers of young families, to whom accrue no benefits of wage tribunals or forty-hour weeks, and whose lot has tended, in recent years, to become more difficult owing to inability to obtain help, either voluntary or paid.

The purchase by the Council of the Salvation Army Creche buildings in Canning Street, North Carlton, vacated owing to the Army's decision to move to other premises, will make it possible to relieve mothers who are in urgent difficulties, by taking over the full care of their young children for a time, and will afford space in its grounds for the provision of more kindergarten or play-group accommodation in a district where it is badly needed.

It is gratifying to know that the Training College of the Free Kindergarten Union has received further substantial assistance from the Government, and that the completion of additions to the College has enabled the Union to substantially increase the number of young women in training.

Two further scholarships for girls to attend the three year course at the College were provided by the Melbourne City Council. As was the case last year, the scholarships provide for tuition fees and for a living allowance and two very satisfactory candidates were selected from a large number of applicants. A report received from the College shows that the two scholars appointed last year had completed a very satisfactory year's work. When their course is completed the girls have undertaken to serve for several years in kindergartens in the City.

The report of Mr. Reeves, the Dental Officer, shows that his attendance at the Health Centres at Kensington and Newry Street has been appreciated, so much so, that towards the end of the year it became evident that two sessions per week at each Centre, instead of one, are needed to cope with the work.

The amount of milk distributed under the Council's scheme of assisted milk distribution, and the number of families assisted thereunder, shows an appreciable rise as compared with last year. This rise seems to mark the turning point in what had been a diminishing number of families requiring assistance during the years since the outbreak of war, and may signify a turn in the tide of general economic prosperity. It is noteworthy, also, that the amount of iron and vitamin mixture distributed to infants was about double that distributed last year, though this increase is more indicative of a change in the professional view point than in the economic need of the population.

INFECTIOUS DISEASES

Details of infectious disease and its control are found in the report of Dr. Hilda W. Bull.

The incidence of infectious disease continued to be very low, the number of diphtheria cases (21) being the lowest ever recorded in the City. This low record corresponded to a low incidence both in the metropolitan area and in the State as a whole, all of which recorded low figures. It is necessary once more, however, to record the warning that this fortunate state of affairs is probably due more to a natural fluctuation in the prevalence of the disease than to the active measures taken to prevent it, which are still, in my opinion, too sporadic and incomplete to ensure our protection against this dangerous disease. In the late thirties the incidence of diphtheria was very low in parts of Europe, particularly Scandinavian countries, where no general immunisation against the disease is carried out, but during the early years of the war diphtheria again became prevalent in Europe and these countries and other parts of Europe suffered very badly indeed, whereas, in Britain, where immunisation was most energetically taken up soon after the outbreak of war, no such rise occurred, and the deaths from diphtheria have been steadily diminishing. In Britain, over the war years, there has been a well organised campaign over the whole country, with widely publicised and distributed advertisements issued both by official and voluntary organisations. On my arrival in London last year I was immediately struck by arresting posters in the London tube stations and trains, copies of which I have secured and passed to the Department of Public Health.

In the City, immunisation was last year limited to infants and pre-school children, but the number of children dealt with in the Health Centres and in various institutions was larger than in any previous year. The number in Health Centres who received two or three doses, and can be regarded as satisfactorily immunised, was 1103, as compared to the previous maximum of 864 in 1945.

Dr. Bull's report gives an account of an investigation of the trial of a new preparation, a combined vaccine, suitable for administration to infants and young children, and designed to prevent both diphtheria and whooping cough. This is prepared by the Commonwealth Serum Laboratories, and appears to be very satisfactory. It is to be hoped that its efficacy will be confirmed and that it will soon be available for general use, since the separate immunisation of children against whooping cough is a laborious and rather nerve-racking task. This year the demand for immunisation against whooping cough, which started last year, has further developed, and a total of 333 children were dealt with.

The situation regarding tuberculosis has shown no noteworthy change, but it is satisfactory to learn that the death-rate for the State continues to fall and has apparently resumed the downward course which it has followed, here and in similar communities, for many decades with interruptions during the two World Wars. Considerable propaganda and experimental work is being carried out by the State in the matter of examination of well people by miniature X-ray examinations. This procedure offers a potentially valuable method of discovering unrecognised

and perhaps infectious cases of tuberculosis. Its use may well be of great assistance in controlling the disease, but the technique of its use or application in a community such as ours has still to be worked out. In the meantime there is still a lamentable lack of sanatoria or hospital accommodation for the cases which have been discovered, a lack which has existed for some years, and is due mainly to the shortage of staff. Great efforts, not yet successful, are being made to overcome it.

Details of an unusual occurrence, namely, a case of anthrax, are given in Dr. Bull's report. The infection was discovered in a worker at a tannery in North Melbourne, and infection was located in a bale of sheep skins from South Africa. The sheep skins had been imported with a veterinary certificate of freedom from infection, and investigations made by myself in Durban in September showed that the authorities there were considerably upset by the event. The Regulations in force in the Union, which are designed to prevent the export of infected skins, appear to be satisfactory, and the Department has been active in notifying its officers of the occurrence and in endeavouring to ensure that there shall be no repetition.

FOOD SUPPLIES

The attached report of the Chief Health Inspector, Mr. T. G. O. Jordan, gives details of the inspections of food premises and of examinations of foods. The customary systematic inspections were carried out, and results can be regarded as relatively satisfactory. That they are not more so is mainly due to the continued, and, perhaps, increasing difficulty which proprietors, in face of heavy patronage, have to meet in securing satisfactory labour, and the continued difficulties, which are only slowly, if at all, improving, in getting carried out the repairs and renovations which are ordered in many premises by the Department.

The regular sampling of foodstuffs was carried out, 453 samples being procured for chemical analysis, of which milks numbered 346. Of the milk samples, only six, or 1.7 per cent., failed to comply with the standard, and it is a pleasure to state that deliberate adulteration appears to be almost, if not quite, non-existent. The average composition of the samples was again very good, the average percentage of fat being 4.4, which is a new high record.

The usual bacteriological examinations of milk samples had, unfortunately, to be suspended in April of the year, so that it is impossible to make comparisons with the average results of former years. It is hoped that the Director of Veterinary Research Institute may be able, before long, to resume the regular bacteriological examinations of samples taken in the City.

HOUSING

One of my main impressions when overseas was that all socially minded persons were thoroughly convinced of the need for most careful planning in the building or re-building of cities, and for the avoidance of those huge unmanageable and soul-destroying aggregations of humanity which constitute the big city.

Once again it is regretted that as far as the City is concerned it is impossible to report that any progress has been made in the improvement of housing conditions. It is probably true, in fact, to say that during the year the housing conditions in the City have, on the whole, deteriorated owing to the impossibility, which is clearly indicated in Mr. Jordan's report, of maintaining crumbling houses in face of the shortage of materials and of the difficulty in obtaining contractors or tradesmen able and willing to carry out maintenance and repair work. It is, moreover, not possible as yet to report any progress with regard to re-planning, either of the City or of the metropolitan area.

GENERAL

Mr. Jordan's report shows the extent and varied character of the work which is carried out under his direction, the quality of which is, I believe, still improving. I am satisfied that none of the obligations which are imposed by the formidable list of Acts and Regulations given in the beginning of his report are neglected.

It is a great satisfaction to me to record that Mr. Jordan has been accorded the honour of the Fellowship of the Royal Sanitary Institute in recognition of his unremitting efforts, over the years, to improve both the status and standards of health workers throughout the Commonwealth.

I wish to express once again my sincere appreciation of the work of the whole of the officers and staff of the department, whose loyalty and competence made it possible for me to apply, with complete confidence, for leave of absence during the year.

Yours faithfully,

JOHN DALE, O.B.E., M.D., B.Sc. (Public Health)
Medical Officer of Health.



1. FAWKNER PARK INFANT WELFARE CENTRE AND KINDERGARTEN



2. FAWKNER PARK—THE SISTER AND A VOLUNTARY HELPER AT WORK



3. FAWKNER PARK—THE OUTDOOR PLAY-SPACE



4. FAWKNER PARK—INTERIOR OF THE KINDERGARTEN

CHILD WELFARE

Health Department,
Town Hall Chambers, Melbourne.
8th April, 1948.

The Medical Officer of Health:

Sir,

I have the honour to report for the year 1947 on the child welfare activities, which were carried out satisfactorily on the lines set out in previous reports.

An extension during the year was the opening of the new Child Welfare Centre in Fawcner Park, South Yarra. During the war years the number of babies born in the South Yarra area increased greatly and the need for a health centre there became apparent. In 1943, a part-time centre was therefore established and for three and a half years, owing to war restrictions, functioned under adverse conditions in the old kiosk. The work grew rapidly and very soon the need was felt, not only for a full-time health centre, but for the provision also of some play-group facilities for the pre-school children there, who lived in flats, where there is little opportunity for free developmental play. The kiosk has now been renovated and reconstructed to give a very nice health centre with an adjacent section, which contains rooms and playground where pre-school children can be cared for. In this section, some children, whose mothers must work, have full day care, others have regular morning kindergarten routine, and others enjoy play experience several times a week under a trained play leader. During the year the Council appointed, for the pre-school section, an enthusiastic committee of management, some of whose members had done excellent work earlier in connection with the South Yarra War Nursery at Christ Church.

In the Health Centres of the City the number of individual babies and mothers and pre-school children attending, as well as the total number of attendances, was greater than in the previous year, although the number of notified births was a little lower (1961 as against 2033).

The number of notified infantile deaths (i.e. under one year of age) was 68. Two deaths of children of unknown address were allotted to the City by the Government Statist so that the infantile death-rate was computed at 35.70 per 1000 births (21.93 neonatal and 13.77 between one month and one year). This compares unfavourably both with that for Greater Melbourne, viz. 26.82, and for Victoria, viz. 26.28. This is disappointing after the low record of last year when the infantile death-rate was 23.21, which was lower than that for both Greater Melbourne and for Victoria. It is still considerably lower, however, than the City average for the previous ten years, viz. 40.9, and is balanced, to some extent, by the negligible death-rate in the years between one and six. There were no deaths in children between one and two years, and one death only in children between two and six years, and this in an inmate of a Mental Hospital who was born with a defective brain. As the number of living children between one and six years of age is computed to be approximately 8,000, this is encouraging.

Forty-three of the 68 notified infant deaths were neonatal, i.e. under one month of age, and 25 were between one month and one year. Examination of the causes of the 25 deaths of infants between one month and one year shows that they could be classified under five headings—

- (a) Accidental—3.
- (b) Due to congenital defects—7.
- (c) Due to cerebral haemorrhage and to convulsions of unknown causes—2.
- (d) Due to gastroenteric infection—1.
- (e) Due to the acute infections through the respiratory tract—12.

Accident and congenital defect are thus seen to account for 10 of the deaths. Since we have come to regard acute infections through the respiratory tract as controllable by the sulpha drugs, it is disappointing to get as many as 12 deaths from these causes. This number is greater than it has been for some years. Failure to receive treatment early enough or a loss of efficacy of the drugs themselves, must be thought of as possible reasons for this.

Towards the end of the year arrangements were made to have analyses made of baby and pre-school records for the years 1926, 1936 and 1946. These analyses were for the purpose of establishing norms of age, weight and height relationship, and of gaining knowledge of the incidence of certain defects, such as carious teeth and unhealthy tonsils. The statistical analyses were made by a group of students from the Psychology Department of the University under the direction of Dr. McElwain, Mr. Hammond, and some of their teaching staff. The results of this survey are given as an addendum to this report.

Work in the various kindergartens and creches has been carried on as in previous years. With the increasing demand for pre-school accommodation and higher standards, provision of staff becomes increasingly difficult. Extension of the facilities for training of kindergarteners is proceeding and doubtless will continue.

This year there were 28 applicants for the two scholarships offered by the City Council for training at the Kindergarten Training College. The two girls who were finally selected from the applicants will, I am sure, do valuable work at the end of their training.

Training Courses:

Sisters doing their Infant Welfare course at the Presbyterian Babies' Home attended our Centres for instruction and practice in the Centre work required for their course. Thirteen Sisters attended during the year.

Milk and Accessory Foods—Supplied through the Centres to People Needing Aid:

The figures given in brackets in the following records represent comparative figures for 1946.

The amount of wet milk supplied was 270 pints (233). This milk was supplied for 7 tuberculosis patients, each receiving some milk for a period of 2 to 3 months.

The amount of dried milk was 21,653 lbs. (16,245 lbs.). 180 gallons (78) of an iron and vitamin mixture were distributed.

The total number of recipients during 1947 was 470 (455), belonging to 438 (391) families. 93 individuals (75) belonging to 77 families (58) received help continuously throughout the whole year.

Lectures in Mothercraft:

Lectures were given by Sister Shaw to senior girls in eleven schools (State and Roman Catholic). 335 girls sat for the examination. Of these, 189 gained certificates of merit, 125 passed the examination, and 21 failed. Some of the girls who attended the classes did not sit for the examination.

TABLE SHOWING VOLUME OF HEALTH CENTRE WORK.

	Council Centres		Training Centres (V.B.H.C. & Tandarra)		Total	
	1946	1947	1946	1947	1946	1947
No. of new babies attending	1461	1571	281	652	1742	2223
No. of individual babies under 1 year	1455	1406	409	541	1864	1947
No. of individual babies between 1 and 2 years	1220	1483	132	198	1352	1681
Total No. of individuals under 2 years	2615	2889	541	739	3156	3628
Total attendance of babies under 2 years	29,510	33,176	4224	6926	33,734	40,102
No. of new expectant mothers	141	155	20	39	161	194
No. of individual expectant mothers	147	169	13	41	160	210
Total consultations with expectant mothers	374	380	26	112	400	492
Visits by Nurses to babies and mothers	5340	4862	939	1287	6279	6149
No. of times babies referred to Doctor or Hospital	538	531	98	205	636	736
No. of children new to pre-school sessions	784	945	17	91	801	1036
No. of individual pre-school children	1633	1748	41	176	1674	1924
Total attendances of pre-school children	5800	7258	141	685	5941	7943
Visits (or consultations apart from sessions) re pre-school children	2725	2362	—	45	2725	2407
No. referred to Dental Hospital	215	260	1	8	216	268
No. of pre-school children examined in their own Kindergartens	—	—	—	—	330	370

Maternal Mortality:

We received notifications of 8 deaths connected with pregnancy or labour, viz:—

Toxaemia and chronic nephritis (aged 43, married, home duties).
 Shock from interference with pregnant uterus (aged 24, single, machinist).
 Obstetrical shock, haemorrhage and pre-eclampsia (aged 34, married, home duties).
 T.B., syphilis, pregnancy (aged 36, married, home duties).
 Eclampsia and haemorrhage (aged 29, married, home duties).
 Vagal inhibition, pregnancy (aged 23, married, home duties).
 Incomplete abortion by deceased's own act (aged 23, married, home duties).
 Coronary thrombosis, pulmonary infarct, puerperal pelvic thrombosis (aged 30, married, home duties).

Infant Mortality

The number of births notified during the year was 1961, which included 25 sets of twins. The number of infant deaths notified was 68 (43 of them being neonatal). The infantile death-rate, computed by the Government Statist, after certain allocations, was 35.7, the neonatal death-rate being 21.9 and the death-rate of those between one month and one year being 13.7.

Infantile Death Rates and Number of Births

Year	Neonatal (under one month)	Between one month and one year	Total	No. of Births
1936	24.8	29.2	54.0	1131
1937	28.1	13.6	41.7	1176
1938	26.0	13.8	39.8	1156
1939	26.2	10.0	36.2	1105
1940	42.2	11.9	54.1	1257
1941	24.6	12.3	36.9	1303
1942	25.3	18.7	44.0	1499
1943	28.8	14.9	43.7	1804
1944	19.9	12.1	32.0	1655
1945	19.8	6.4	26.3	1709
Average for 10 years	26.7	14.2	40.9	1379
1946	17.7	5.4	23.1	2033
1947	21.93	13.77	35.70	1961

Neonatal Deaths

The causes of the 43 neonatal deaths were:—

Prematurity	10	Bronchopneumonia	1
Prematurity and atelectasis	11	Bronchopneumonia and congenital kidney defect	1
Prematurity and bronchopneumonia	1	Multiple deformities with gastroenteritis	1
Prematurity and multiple deformities	1	Congenital malformation of heart	1
Atelectasis	5	Congenital malformation of duodenum	1
Cerebral haemorrhage	5	Meningocele	2
Cerebral haemorrhage and hydrocephalus	1	Gastroenteritis	1
Icterus gravis	1		

Of the 43 babies who died in the neonatal period all had had antenatal attention except one. This baby was born in the ambulance on the way to hospital. All the fathers were employed, but in one case the parents were separated. None of the babies were ex-nuptial. Diet appeared to be satisfactory in all cases, though in one mother there was kidney trouble with eclampsia. 6 of the deaths were in twin births. In 4 of these the other twin lived. 16 were born in private hospitals, 20 in the Women's Hospital, and 6 in the Queen Victoria Hospital. None were born in their own homes. 18 were in first children, 13 in second children, and 12 in third, fourth and eighth children.

Deaths between One Month and One Year of Age

The causes of the 25 deaths notified at this age were as follows:—

Gastroenteritis	1	Congenital heart	1
Gastroenteritis and bronchopneumonia	1	Congenital heart and prematurity	1
Aspiration of vomitus and bronchopneumonia	1	Cerebral haemorrhage	1
Bronchopneumonia	5	Convulsions	1
Pneumonia	1	Congenital hydrocephalus	1
Meningitis (non tubercular)	4	Chronic intestinal obstruction	1
Septicaemia and meningitis	1	Embryonic malignancy	1
Congenital heart and pneumonia	2	Accidental suffocation	2

Twelve of these 25 babies had attended the Centres, but only three of them regularly. These three died from cerebro-spinal meningitis, cerebral haemorrhage, and accidental suffocation respectively. The other nine had had very little contact with the centres, three of them attending only once when immediate treatment was found necessary, and when they were sent straight to the Children's Hospital. The other six of them attended only in the first weeks of life; five of these latter were under regular treatment from their doctor or hospital, whilst the sixth was home visited and appeared well until its sudden death in convulsions at ten months of age.

Thirteen of the babies had not attended a centre. Of these 13, three were known and home visited without succeeding in gaining parent co-operation, whilst ten were unknown to Sisters for reasons such as, immigration to the City from other parts or death in Homes or Hospitals to which the babies had been transferred soon after birth.

Deaths in Children between One and Six Years of Age

The only death occurring in children in this age group, as mentioned earlier, was of a congenitally defective child in Kew Mental Hospital. The child was known to the Centres.

Acknowledgements:

I wish to thank Dr. Bull for her continued supervision of the children at the Pigdon Street Centre, and also record appreciation of the excellent work of all the Sisters, and of the assistance so generously given by the voluntary helpers.

HILDA E. KINCAID, D.Sc., M.B., B.S.

ADDENDUM

Health Department,
Town Hall Chambers, Melbourne
15th July, 1948.

The Medical Officer of Health:

Sir,

As an addendum to my report for 1947, I beg to present a report upon the growth of infants and pre-school children, and the incidence of certain defects among them, based upon a survey of Health Centre records, in the City of Melbourne.

The Statistical analyses have been made by the Psychology Department of the University of Melbourne, under the direction of Dr. McElwain. All actual figures and graphs pertaining to the survey are being published in a separate pamphlet. A few of the graphs dealing with weight are reproduced below. Similar ones (not reproduced here) deal with height.

The Health Centre work in the City has been under my supervision for the last twenty years, i.e., since the end of 1927. During that time, except for a large increase in the number of attendances of children (13,257 in 1927 and 48,045 in 1947), a gradual broadening of scope, and the progress resulting from widened experience and expanding knowledge, the general procedure, type of work, keeping of records, etc., have been, to a large extent, uniform.

This makes it possible to get some reliable comparisons and to test the validity of one's impressions.

Annual figures have given us evidence that fewer infants and pre-school children die than in earlier years. We have no figures, however, to show whether fewer children are sick than formerly, and we had no figures to show whether physique had improved. Yet, the impression was that both these facts were true. In the analyses to hand, one of these impressions at least is born out.

It was decided to compare records of 1926, 1936 and 1946: but when the 1926 records were unearthed they were found to be inadequate for reliable results. The 1936 records, however, were sufficiently full and adequate to be used with confidence—the pre-school ones had, in fact, been used by Miss Stuckey and myself (Medical Journal of Australia, March 26th, 1938) in 1937 to make growth lines of height and weight for age, and of weight for height, in both sexes.

All measurements of height and weight are made in the Centres by fully trained Sisters (triple certificated) or by voluntary helpers trained by them and working under their supervision. Measurements are made of children undressed, except for bloomers or singlets.

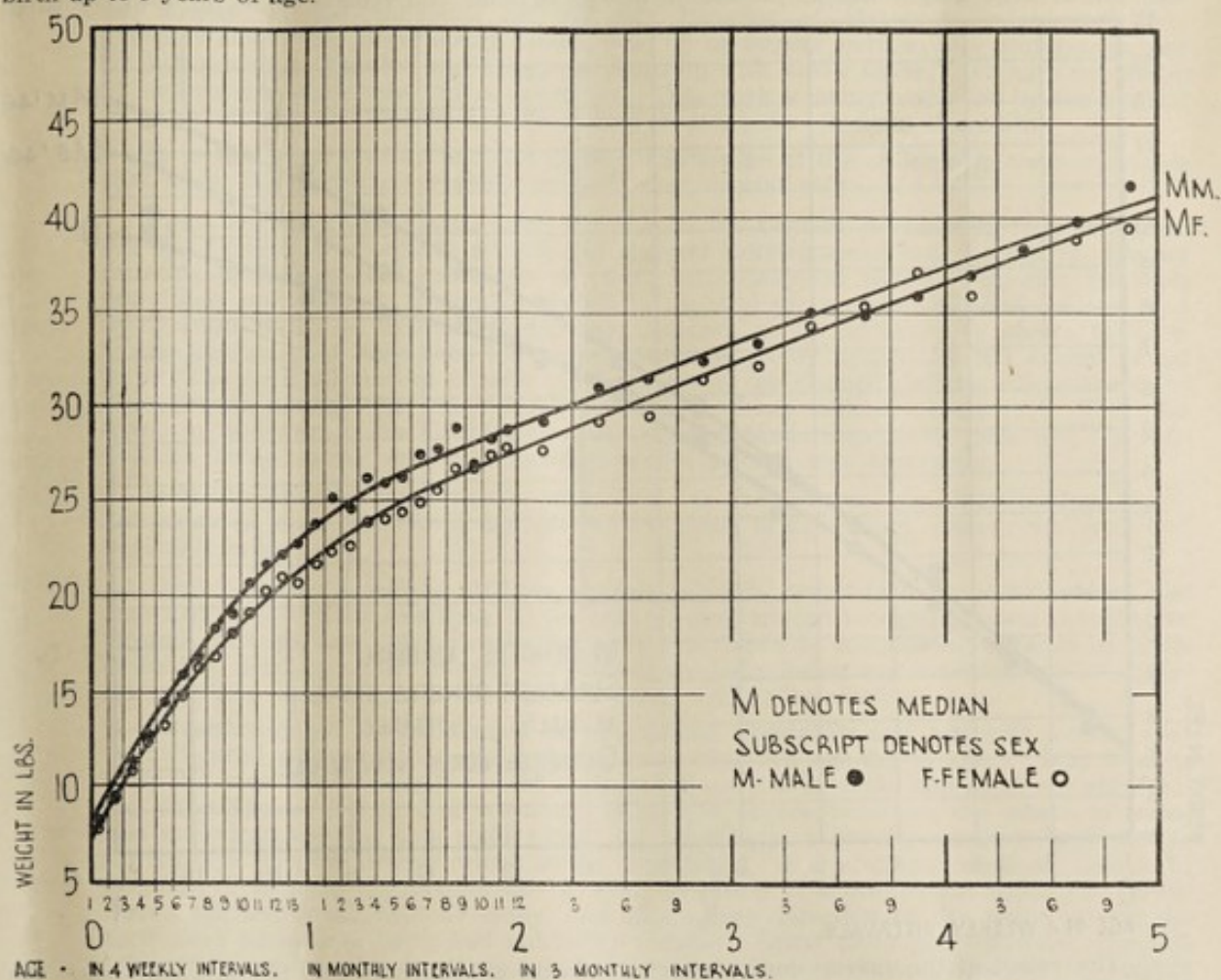
In the analysis the following facts are revealed:—

1. That the average weight line for both babies and for pre-school children is higher in 1946 than in 1936. At one year of age it is approximately one and a quarter lbs. higher, and between 2 and 5 years approximately two (2) lbs. higher.
2. That the average height line for pre-school children is higher in 1946 than 1936 by approximately $\frac{3}{4}$ inch.
3. That the average weight line for babies is very considerably higher—especially after six months of age—than that which has been used and printed on the Baby Health Centre cards used throughout Victoria for many years.
4. That the weight and height lines for male babies and pre-school children are higher than those for females to an extent which justifies the use of different record charts for the two sexes.
5. That the weight line for Melbourne babies closely approximates to the line, combined for males and females, published for New Zealand (Annual Report Royal N.Z. Society for Health of Women and Children 1943-4) where there is a high economic level and a low infant mortality.
6. That the incidence in 1946 of certain defects such as carious teeth and unhealthy tonsils is less than it was in 1936, as shown by the following table:—

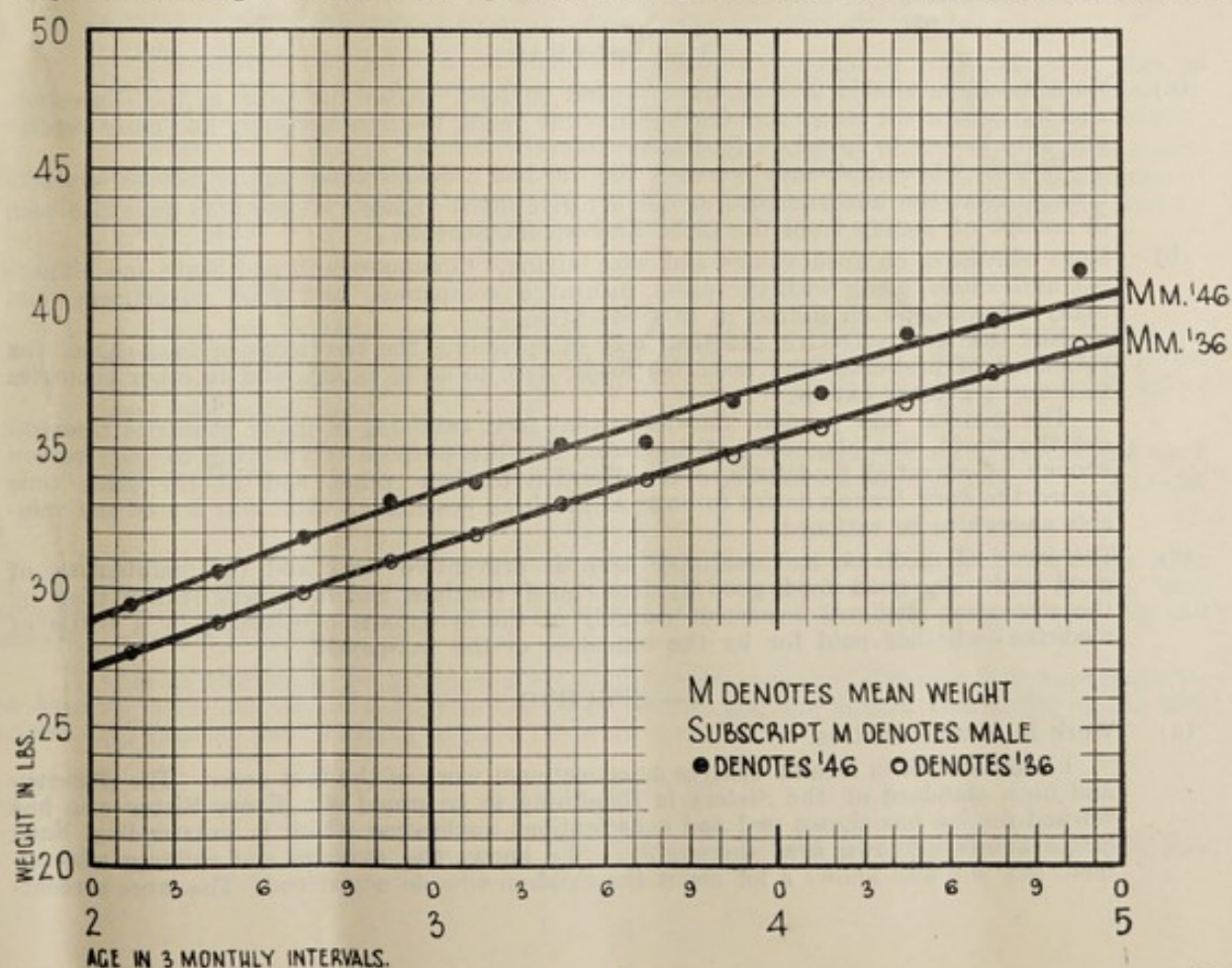
Age Group	Percentage of children with defective teeth (including carious, filled and extracted teeth)		Percentage of children with unhealthy tonsils and recommended for tonsillectomy.		Percentage of children with tonsillectomy already performed.		Number of records examined.	
	1936	1946	1936	1946	1936	1946	1936	1946
2 — 3 years	24.0	13.9	6.6	5.9	2.5	1.2	362	323
3 — 4 years	53.1	38.5	11.4	8.0	8.6	4.2	254	288
4 — 5 years	74.4	60.6	13.0	10.0	18.0	6.3	238	351

This suggests for the whole group between 2 and 5 years an average decrease of children with caries of approximately 13 per cent and of children who have had unhealthy tonsils of about 8 per cent.

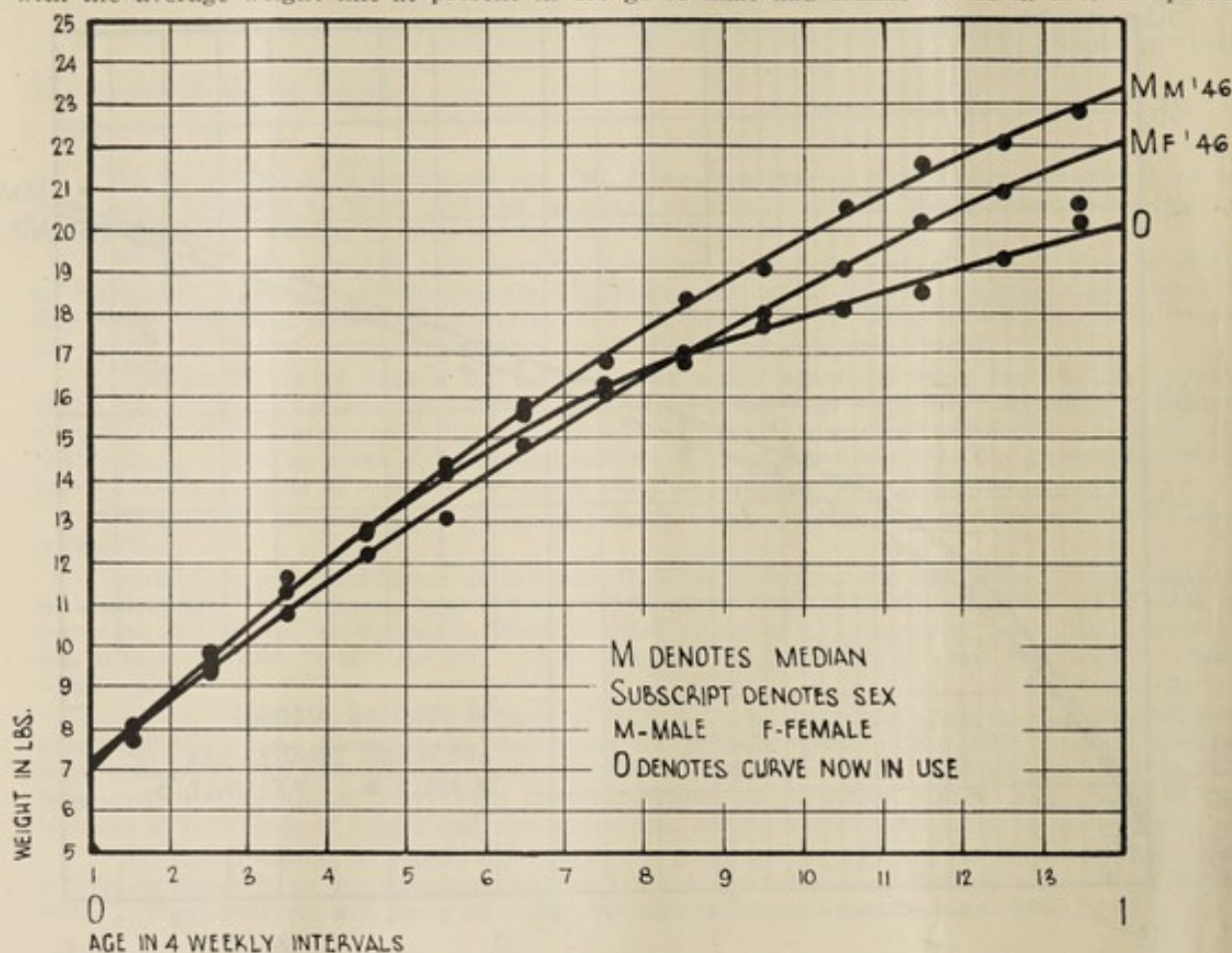
Graph 6.—Showing difference between average weight for age of males and females from birth up to 5 years of age.



Graph 10.—Showing difference in average weight for age in male pre-school children in 1936 & 1946



Graph 15.—Showing average weight for ain Victorian Baby Health Centres. with the average weight line at present in use ge of male and female babies in 1946 compared



The result of the survey does appear to indicate an improvement in physique over the years and it is interesting to enumerate as follows, some of the factors which may be responsible for this improvement:—

A — GENERAL

- (a) More money available to mothers to spend on food. After the "lift" of the depression, shortly before the war, and during the war years, mothers certainly had more regular and sure money to spend on food than before.

Women whose husbands were at the war had a definite and regular income, irrespective of what the husbands did or did not give them. Since 1941 mothers have also been in receipt of money from the Child Endowment Scheme.

- (b) More education on food values and wise buying. Commonwealth and State and Municipal authorities, along with the press, insurance companies, and food advertisers and many others have all shared in this education.

Not the least effective practical way of spreading the knowledge of food values was rationing of first-class and essential foods, here to some extent, and in other countries to a much greater extent.

The general and popular knowledge that food rationing in many countries throughout the world, was planned and instituted for the purpose of ensuring to each person enough of essential foodstuffs, drew attention to their value, and at the same time roused the very human desire to have as much as possible of what was scarce and valuable enough to be rationed.

- (c) The trend of medicine and dentistry towards preventive work and the maintenance of good health by good food, good hygiene, good routines and happiness rather than by the somewhat medieval treatment (largely of the symptoms of disease) by a bottle of medicine—whether paid for by the consumer or the tax-payer.

B — SPECIFIC

- (a) Work in Health Centres.

I regard work in Health Centres as educational work of the first order. The efficiency and high standard of the Sisters is something to be proud of. Every Sister who has worked for me has shown zeal and conscientious application which is outstanding. Each Sister knows her own area thoroughly. She knows the mothers and children who attend, but she also knows a lot about the children who do not attend. The large percent-

age of babies (approx. 90 per cent.) and of pre-school children (approx. 40 per cent.) who do attend shows the confidence in, and the value attached by the mothers, to the Centres. I am sure the high standard of work among Health Centre nurses can be attributed largely to the influence of the late Director of Maternal, Infant and Pre-School Welfare, Dr. Scantlebury-Brown, who by arranging lectures and conferences, and by her personal stimulus and happy relationship with every nurse, kept alive her vision of progressive standards and co-operation. This work is being continued by the present Director of Maternal, Infant and Pre-school Welfare, Dr. Barbara Meredith.

It is the home visiting and the Sisters' knowledge of the children in their own area that make their work so personal and of a very special value.

Apart from the educational work, there is in the Centres a constant, regular, checking up of progress as regards growth and general development, and a regular detailed ordering of feedings for artificially or partly artificially-fed babies. Specific optimum quantities are ordered, particular regard being paid to protein, mineral, caloric and fluid requirements as well as vitamin requirements, as far as they are known to date. If the mother of a baby who has to be wholly or partly artificially fed cannot afford to buy the required amount of milk (fresh or dried) the Council's officer, who is there for the purpose, assesses her need and gives free or cheap milk as necessary. The milk given in this way in the Centres has been mostly standardised dried milk, and the composition being known optimum feedings can be ordered very accurately.

Help has always been given in other ways at the Centres: e.g., introductions to relief agencies when necessary, and, during the years of depression, grocery and fruit and vegetable orders.

There has been a realistic attitude adopted towards breast-feeding. Experience has shown that somewhat less than 40 per cent. of mothers can successfully feed their babies beyond six months without complement. Care is taken to complement as soon as signs of failing lactation occur, in order to prevent the baby losing any condition, whilst applying methods designed to re-establish or arrest failing lactation.

Educational diet of whole-meal cereals, sieved vegetables and egg yolk, crusts, etc., is introduced comparatively early—some time after five months of age. This is done with the view to teaching the child early to eat as well as suck, and so to obviate feeding difficulties at the time of weaning. It also, of course, increases the intake of minerals and vitamins, and, to a small extent, of calories. A careful watch is kept always for signs of fat intolerance, which in my experience, is a common cause of failure to progress. Constant supervision allows early detection of acute illnesses which can be referred for treatment without delay, and also allows detection of the more chronic defects such as carious teeth and unhealthy tonsils. Apart from poor posture, the last two conditions are the most common chronic defects met with. Analysis of records shows that dental caries (which term is taken to include not only carious but filled and extracted teeth) diminished in the last decade, and that the percentage of tonsils regarded as unhealthy enough to need tonsillectomy has also diminished.

Throughout the years, a continuous educational programme with regard to care of teeth and prevention of caries has been followed and very many children have been referred to the Pre-School Dental Clinic of the Dental Hospital for teeth already carious.

Since 1935 a Dental Section, with a dentist in attendance weekly, has been in operation at the Kensington Centre, and in June 1940 a similar Dental Section was commenced in the new Newry Street Centre. The Dental Sessions have been exceedingly well attended, again showing an appreciation by mothers of physical care.

(b) Work in Kindergartens.

There are twenty-three Kindergartens or Creches in close touch with our Health Department, where the children are medically examined regularly. In all of these, stress is laid on the importance of physical care and the inter-action of physical, mental, emotional, and social well-being.

Here the Directors of the Kindergartens are also doing a constant educational work with mothers and a very direct work with the children during the day whilst in their care.

I cannot speak too highly of the work of all the trained people doing Child Welfare work of one kind or another; nor could I fail to appreciate the fundamental importance of the vast amount of voluntary work done by many able men and women, and of the progressive spirit and wide vision of the Melbourne City Council.

I wish to thank Dr. McElwain and his staff for the very useful charts they have elaborated from the data, and Dr. Dale, Medical Officer of Health, and the Health Committee of the Melbourne City Council, for arranging to have the work done.

Yours faithfully,

HILDA E. KINCAID, D.Sc. M.B., B.S.

A STUDY OF BEHAVIOUR DISORDERS IN 96 PRE-SCHOOL CHILDREN

By Hilda W. Bull, B.Sc., M.B., D.P.H.

In the four years during which I had the privilege of working in the Psychiatric Clinic at the Children's Hospital, I was struck by the fact that so many of the children were taken to the Clinic only when symptoms were well-established. The inevitable excuse of the parents was that they "thought he would grow out of it." This indicated that systematic investigation of behaviour disorders at an earlier age would be of interest, and in July, 1945, work on these lines was begun with pre-school children.

This report is based on the records of 96 children who attended the Health Centre and Nursery School at Pigdon Street, North Carlton, between July 1945 and December 1947. The records include the results of intelligence tests, interviews with the children, interviews with the parents, and observation of children during their activities at the School. Of course it would take a team of workers to record all the relevant material, but this report may serve as a very tentative basis for planned investigation.

The ages of the children investigated varied from 35 to 60 months. There were 44 boys and 52 girls; 53 were of Australian and 43 of foreign parentage.

Selection of Children for the Nursery School

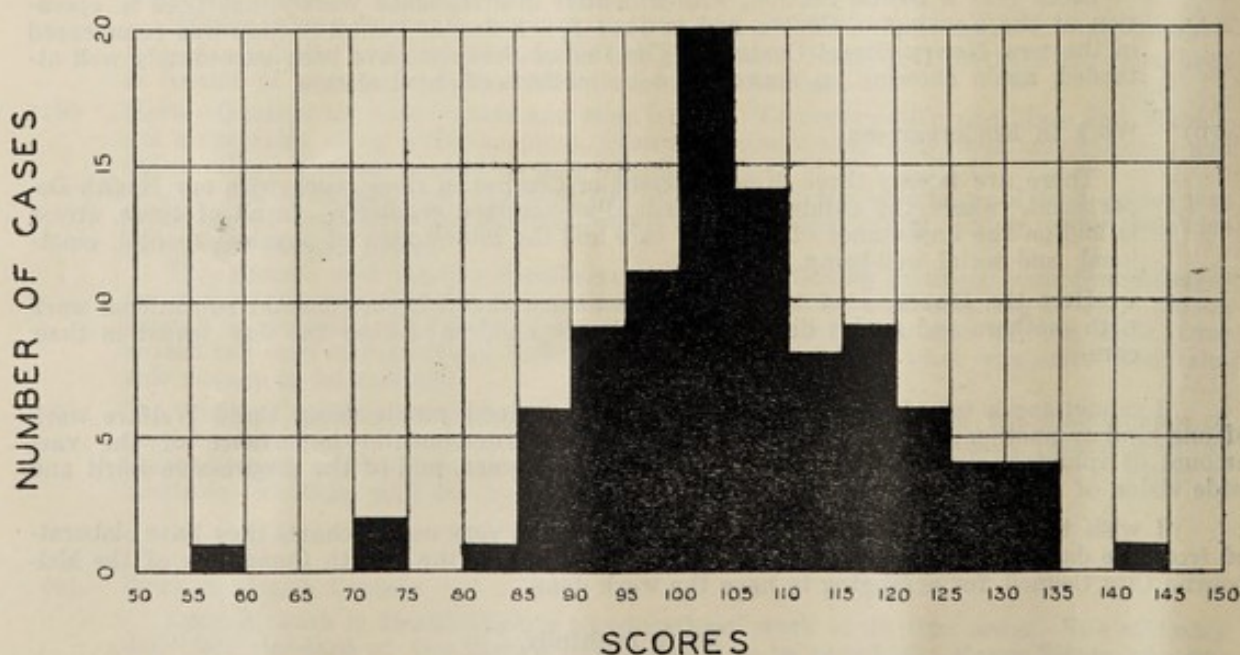
The children attending the school are selected from a large number of applicants primarily on their Health Centre history. Most of the children have been brought regularly to the infant and pre-school sessions, and priority is given to children who have been under supervision from birth. However, the particular needs of the mother and the severity of behaviour problems are always considered; but observation suggests that the bias is not significant, and that the conclusions would apply fairly well to a random sample.

Intelligence Tests

The material used was the Terman-Morrill revision of the Binet-Simon tests, Form L, and the tests are administered without modification. Though the test forms only a part of the child's psychological investigation it has proved of great value in helping us to understand many of the problems. The child's behaviour in the test situation often gives valuable clues, and we must agree with the claim, put forward by the editors of the early editions of the test, that "our school-room methods will in turn become more intelligent, and all classes of children, but especially the gifted and the slow, will profit by such intellectual diagnosis."

Only one child (I.Q. 55) was rejected as being too backward to benefit from Nursery School activities; but others who were considered to be retarded were admitted. Undoubtedly they would have been better served by special training in smaller groups; but the improvement in their social adjustment may be held to justify their inclusion.

Results of Intelligence Tests



As will be seen by the above histogram, the tests show a fairly normal distribution, but weighted in the higher values.

Statistically the mean for this sample is significantly greater than one would expect for the population as a whole. However, the difference is too small to be of any importance. It is probably related to the socio-economic status of the parents, which is rather better than in many districts of the City.

The mean I.Q. is 105, and the standard deviation 13.

32 cases were rated as superior (I.Q. above 110).

52 were rated as "average" (I.Q. 90 - 110).

10 were rated as "poor" (I.Q. below 90).

Intelligence Quotient with Socio-Economic Status.

The I.Q. of the children showed a statistically significant relationship with—

1. Educational standards and
2. Employment history of parents.

The data are presented in Appendix A.

Comparison of Intelligence Quotients in Children of Australian and Foreign Parentage.

Many of the parents were born out of Australia, and their children, though able to speak English reasonably well, might have been slightly hampered on the verbal tests. A comparison was made between the Intelligence Quotients of the two groups.

The results of this inquiry were that 53 children of Australian parentage showed a mean I.Q. of 105.8, and a standard deviation of 15.3, while the 43 children of foreign parentage had a mean I.Q. of 104.5 and a standard deviation of 12.5. The difference is not statistically significant.

Sex and Intelligence Quotient

There were 44 boys and 52 girls in the sample. The mean I.Q. for boys was 104.2, with a standard deviation of 13. The mean I.Q. for girls was 106, with a standard deviation of 14.6. A higher proportion of boys had an I.Q. of over 100; but the number of girls with I.Q. over 120 was higher in this sample. The difference is not statistically significant.

Age at time of Tests

When the tests were begun we had the whole range of ages from 3—5 years to be done; but an effort is made now to test children from 3—6 months after their admission to Nursery School.

The table in Appendix B. does not suggest that age at testing is a factor in the results, that is, that children are any more difficult to test at one age than another, except that some of the duller children have to be left for a while before they can be tested, and that children who are sufficiently well adjusted socially to be tested at 3 years of age are usually bright.

Behaviour Disorders

This small community of children has, during the last two and a half years, provided a fruitful field for the investigation of almost every type of problem to be encountered in children at an early age. The modern emphasis is more and more on these early manifestations, and amongst these few families examples of many types of psychological trauma likely to influence the future development of the child have been encountered. There has also been a remarkable variety in the family histories and social problems disclosed in the interviews with the parents. Maladjustment in the home, and a history of neurotic and even psychotic symptoms in the relatives of the children show a surprising incidence in this sample which, on the whole, is drawn from a rather more favoured section of the community than most of our City dwellers.

Incidence of Behaviour Disorders

A record chart was devised, based on that suggested by Kanner^{*}, including the parents' history of the child's behaviour patterns, the family history, education and employment of parents, developmental data, home conditions, habits, personality traits, etc., and the information on behaviour disorders is taken from these records.

Fifty-three of the 96 children showed one or more behaviour patterns indicating either backwardness or maladjustment. It is, of course, impossible to quantify such material satisfactorily; but the following list may give some indication of the type of problems dealt with amongst this sample:—

Habits—including tics, rocking, head-banging, auto-eroticism, thumb-sucking, nail-biting, etc.	16
Physiological Disturbances—Feeding problems, vomiting, enuresis, etc.	12
Aggression, Tantrums, Spite, Cruelty, etc.	16
Speech Backward, Stammering	11
Repression, shyness, mother attachment, jealousy of siblings, etc.	7
Fears and night terrors	6
Backwardness, destructiveness, etc.	9

* Kanner, L., Child Psychiatry, 1935.

Although such problems can occur in children of any grade of intelligence, they were more common in the lower grades.

Ten out of the 10 children with I.Q. below 90 showed 21 problems, an average of 2.1 per child.

Thirty-two out of 54 children with I.Q. between 90 and 110 showed 48 problems, an average of 0.9 for the whole group.

Eleven out of 32 children with I.Q. intelligence above 110 showed 12 problems, an average of 0.4 for the whole group.

In 43 children there were no behaviour problems, or those noted were minor and transient.

Seven children were left-handed. Two of these stammered, but recovered when pressure to use the right hand was removed. Most become ambidextrous, but two will probably remain left-handed.

Nine children had illnesses which were associated with psychological disturbances, e.g., asthma, eczema, rheumatic fever, congenital heart disease.

In eleven cases excessive severity and punishment by the parents contributed to the child's disturbances.

This number of "problems" may seem surprisingly large amongst a group of "normal" children; but few of them were severe, none, at that age, very deeply rooted, and practically all capable of adjustment in terms primarily of the family situation, and secondarily in their school relationships. Many of them are the aftermaths of the war situation—anxiety, separation, difficulties of re-adjustment, housing conditions—all made happy normal relations between parents and children difficult. Mothers left alone to bring up children often had an exaggerated idea of their "duty" to the children, and were over-severe, nagging, or withdrawn. It was interesting to see the relief with which they relaxed into a more easy, un-selfconscious, co-operative attitude, and how happily they responded to the appeal for more imagination and much more humour in the relationship. In some cases it was impossible to make much improvement in the family situation; but the child's gradual adjustment to the work and play and mateship at the school often served to mitigate the effects of an inharmonious home life.

Psychotic and Psycho-Neurotic Family Histories

In a few cases there was a definite history of psychosis or psycho-neurosis in the family. It is not suggested that there is any "hereditary" connection with the problems of the children; but it often caused agitation and fear, and parents were glad to discuss the matter, and to be relieved of unnecessary anxiety. Examples of these are listed in Appendix C.

In many cases, where the mother was "nervy", psycho-therapy was an important factor in bringing about a re-adjustment in the home situation.

Home Conditions

In 36 instances housing conditions were classified as being good, i.e., there was a room for each one or two children, and there was sufficient playing space. 31 were classed as fair—smallish houses with the minimum of comfort—and 29 were overcrowded and quite unsuitable for decent living.

In 25 instances relatives lived with the child's parents, and in many cases there were friction and interference which had a bad effect on the children.

At least 11 children, probably more, slept in the same room with the parents, and in 23 houses there was no playing space whatever.

Need for more Nursery Schools and Guidance Clinics

In several cases, at least 8 - 10, among the children showing behaviour disorders, I should have been glad to pass the children on to a well-staffed Guidance Clinic for individual observations and therapy, and 9 other children who were slow and backward would have benefited from special attention in a smaller group. It is quite wrong to have to pass on for ordinary education children who are naturally handicapped. They will probably have to battle against odds for years until, if they are lucky, they find themselves in an Opportunity Grade. Only too often, by that time they will have become bewildered, unhappy, sullen, cowed or aggressive, and valuable years will have been wasted.

On the whole the child who is happy, exercising its developing skills in various ways is not likely to develop or retain undesirable behaviour patterns. Most of the "problems" improve during the Nursery School period, and there should be many more such schools, and more opportunities for mothers to discuss their difficulties with trained people.

Nursery School Activities

The Nursery School, which is staffed by the Education Department, and maintained by the Melbourne City Council, has a membership of 52 children and is divided into two roughly equal groups, junior and senior. The mothers co-operate in the work of the school. There is a very good Parents' Club, under the presidency of Mrs. Alan Murray, herself a distinguished psycho-

gist, and the meetings and activities help to give a community spirit and to break down that over-possessive attitude which is so often found in small, isolated families.

The Health Centre and Nursery School staffs work in close co-operation, and many fruitful discussions are held. The lively and sympathetic interest of Sister Price, who is in charge of the Health Centre, contributes a great deal to the general effort. The work of Miss Jean Hamilton, the Directress, is beyond praise. She gives the maximum care and thought to the problem of each individual child, and her relationship with the mothers who come to help is sympathetic, and of great educational value. Her enthusiasm, insight and competence have kept the work at a very high standard.

Summary

A psychological examination of 96 children was carried out at the Nursery School, Pigdon Street, between July, 1945, and December 1947. The chief findings were as follows:—

1. The mean I.Q. for the group was 105, and the distribution roughly normal.
2. A statistically significant relationship was found between I.Q. of children and (1) educational, and (2) employment status of parents.
3. Fifty-three of the 96 showed behaviour disorders, the most frequent being habits, tics, etc., physiological disturbances, aggression, tantrums, backward speech, repression, and some retardation.
4. There was a higher incidence of behaviour disorders among the children of lower I.Q.
5. Many of the problems affecting the behaviour of children were connected with overcrowded housing conditions, lack of playing space, and interference by relations.
6. The need is stressed for provision of more Nursery Schools, and greater facilities for dealing with "problem" and retarded children.
7. It is suggested that planned investigation along the lines of the report would be of value.

APPENDIX A.

Socio-Economic Status of Parents and I.Q. of Children

(1) Education.

Four categories were taken—

1. Below Merit standard.
2. Merit.
3. High School.
4. University.

(2) Employment.

Four categories were taken—

1. Unskilled work.
2. Skilled (with a few semi-skilled).
3. Business.
4. Professional.

This classification is necessarily rough; but has a fair relationship to the Commonwealth Statistician's grouping of employment categories.

The following table presents the I.Q.'s of children in relation to the education and employment classification of the parents:—

TABLE
Socio-Economic Status of Parents

I.Q. of Children	Education Category				Employment Category			
	1.	2.	3.	4.	1.	2.	3.	4.
140 - 144		1				1		
135 - 139								
130 - 134		1	1	2		1	1	2
125 - 129		3		1		2	1	1
120 - 124		5	1			3	3	
115 - 119	1	4	2	2	1	4	2	2
110 - 114	3	4	1			4	3	1
105 - 109	1	10	3		3	6	5	
100 - 104	2	10	7	1	5	9	3	3
95 - 99	8	2	1		3	7	1	
90 - 94	4	3	2		1	6	2	
85 - 89	4	2			4	1	1	
80 - 84	1				1			
75 - 79								
70 - 74	1	1			1	1		
65 - 69								
60 - 64								
59 - 55		1			1			
Totals	25	47	18	6	20	45	22	9

It will be seen from the above table that the children with I.Q. below 100 are distributed as follows on these criteria—

Education of Parent.

Below Merit	18 out of 25
Merit	9 out of 47
High School	3 out of 18
University	0 out of 6

Employment of Parent.

Unskilled	11 out of 20
Skilled	15 out of 45
Business	4 out of 22
Professional	0 out of 9

APPENDIX B.

Age at time of Test and I.Q.

Age in months	I.Q. Below 79	I.Q. 80-94	I.Q. 95-109	I.Q. 110-124	I.Q. 125-144	Total
58-60	2	2	3	1	—	8
55-57	—	3	5	4	—	12
52-54	—	1	6	3	1	11
49-51	—	2	2	1	1	6
46-48	1	1	5	2	1	10
43-45	—	2	8	3	2	15
40-42	—	2	7	5	3	17
37-39	—	3	7	1	1	12
34-36	—	—	2	3	—	5
Totals	3	16	45	23	9	96

APPENDIX C.

Psychotic or Psycho-Neurotic Histories

Case No.	I.Q.	Child	Relatives
1.	102	Very difficult. Night terrors.	Aunt psychotic, institutional.
2.	105	Aggressive—enuresis.	Brother very backward (I.Q. 50)
3.	78	Persistent thymus—backward.	Cousin psychotic.
4.	100	Jealous, spiteful, aggressive.	Aunt psychotic.
5.	55	Very backward.	Two cousins defective, institutional. Mother unstable.
6.	98	Slow, unresponsive.	Two brothers defective, institutional.
7.	103	Head-banging, aggressive.	Psychotic and neurotic family history.
8.	98	Nervous, excited, boyish (girl).	Mongol uncle.
9.	114	Feeding problems, jealousy.	Two psychotic aunts (institutional).
10.	94	Fears, jealousy, enuresis.	Epilepsy in brother and sister.
11.	120	Tantrums and spiteful.	Mother extremely neurotic, childhood trauma.
12.	102	Extremely excitable, head-banging	Mother psycho-neurotic.
13.	70	Very slow.	Father alcoholic and history of lead poisoning.
14.	93	Slow and unco-operative.	Neurotic family history.
15.	88	Child backward.	Father very neurotic.
16.	120	Speech defect.	Mother very neurotic.
17.	120	Extreme feeding problem.	Mother psycho-neurotic (under treatment)

INFECTIOUS DISEASES

Health Department,
Town Hall Chambers Melbourne.

7th June, 1948.

The Medical Officer of Health:

Sir,

I have the honour to submit a report on the incidence and control of infectious diseases in the City of Melbourne for the year 1947.

The position with regard to infectious diseases was very good during the year. The incidence of diphtheria was the lowest ever recorded; scarlet fever also showed a low incidence, and although a few cases of poliomyelitis occurred and gave rise to anxiety, the prevalence quickly abated. The case of anthrax caused a good deal of anxiety; but the measures taken were successful, and there were no further cases. Cerebro-spinal meningitis has shown no tendency to prevalence since the war years, and, outside of tuberculosis, there was only one death from an infectious disease, that of a man of twenty from poliomyelitis.

DIPHTHERIA.

TABLE I.

Year	No. of Cases	Cases per 100,000	Deaths	Case Fatality	Fatality per 100,000
1915-24 (average) —————	373	355	14	3.7	13
* 1925-34 (average) —————	230	239	6	2.9	7
1935-39 (average) —————	168	178	3	1.8	3
1940-44 (average) —————	102	106	3	2.9	3
1945 —————	35	34	1	2.8	1
1946 —————	34	32	2	5.8	2
1947 —————	21	21	—	—	—

* Immunization commenced in City.

Incidence

The number of cases of diphtheria was the lowest ever recorded in the City. There were only twenty-one cases, seven in males and fourteen in females.

Deaths

There were no deaths from diphtheria in 1947. This is the only year on record when no deaths occurred.

Rates

The rate per 100,000 was 21. The rates for the nine adjoining municipalities varied, five being above and four below that for the City. The highest rate was 119, and the lowest 2. The rate per 100,000 for the nine municipalities was 33.

The following figures show the rates per 100,000 of the City, the nine adjacent municipalities, the metropolitan area and the State, for the past five years.

	Population	1943	1944	1945	1946	1947
Melbourne City —————	99,868	48	71	35	32	21
Nine adjacent Municipalities ———	385,699	64	69	85	37	33
Greater Melbourne —————	1,226,923	50	54	51	23	23
Whole State —————	2,055,252	67	62	45	24	19

TABLE II.

Age Incidence

Age	Males	Females	Totals	Percentages
0-4 years —————	2	4	6	28
5-9 years —————	2	3	5	24
10-14 years —————	1	3	4	20
15 years and over —————	2	4	6	28
	<u>7</u>	<u>14</u>	<u>21</u>	

TABLE III.

Institutional and General Cases

Year	Total	Institutional	General
1931-1935 (average) —————	280	44	236
1936-1940 (average) —————	136	28	108
1941 —————	235	15	220
1942 —————	56	12	44
1943 —————	48	21	27
1944 —————	71	11	60
1945 —————	35	3	32
1946 —————	34	7	27
1947 —————	21	5	16

Institutional Cases

Five cases occurred in institutions, two in a home for adults, and three in an institution for children. In addition, we had a population of 2,500 at Camp Pell, of people not belonging to the City area, and five cases of diphtheria occurred there. If we exclude the institutional and Camp Pell cases, none of whom are City residents, we have among the general population of the City the extraordinary low figure of eleven cases.

Swabs

Two hundred and sixteen swabs were taken from contacts of diphtheria cases. Fifty-one were positive, and of these, four were non-virulent. Most of the positive swabs came from families in Camp Pell who were persistent carriers of virulent organisms, and close supervision was necessary to prevent any spread of the infection in the Camp. It was not until tonsillectomy was done that some of the children were freed from infection.

Diphtheria in Families

Ten cases occurred in four families. In one, a mother and two children were affected; in another, twins, the only unimmunised members of a family of nine—all the rest who were immunised escaped infection; a mother and infant child were affected in another case; and three children in one family in Camp Pell contracted the disease.

Diphtheria in Individuals Previously Treated

There was no case of diphtheria in any child who had been tested and immunised against diphtheria.

Immunisation

Immunisation in the schools was suspended during the year. As so many are protected during the infant and pre-school periods, the number of children of school age needing protection is small; but a check up of school children is desirable, both to test the persistence of immunity in those who have been immunised and to pick up those whose parents have not had them done in infancy. The work of the schools will be resumed in 1948.

Immunisation in Health Centres

The figures for immunisation in Health Centres for the last five years are as follows:—

TABLE IV.

Year	Total Individuals	Immunized			Two or three Doses
		1	2	3	
1943	1198	85	638	—	638
1944	1116	79	668	—	668
1945	1224	74	864	—	864
1946	1683	72	853	—	853
1947	1772	102	1001	—	1001

The figures for the number of children immunised at the Health Centres show a considerable improvement. In 1946, 72 children received one dose and 853 two doses, a total of 925 who came for immunisation, while in 1947 the figures were — 102 who had one dose, 1001 who had two doses, a total of 1103.

This is fairly satisfactory, but considering that a considerable number of these children live outside the City area, and are not among those notified as City births, we still have too large a percentage of the children born in the City who have not availed themselves of the service. An increasing number appear to have the work done by private doctors. As every mother is urged to bring her child for immunisation between nine and twelve months, there is no doubt that the ground is well covered by the Sisters at the Health Centres.

Immunisation in Hospitals and Institutions

TABLE V.

	Total Presenting	Immunised
Children's Welfare Department	162	85
Royal Melbourne Hospital	149	58
Alfred Hospital	85	38
Children's Hospital	94	29
North Melbourne Creche	25	13
Royal Victorian Institute for the Blind	25	9
City Free Kindergarten	40	19
	580	251
Health Centres	1772	1103
Totals	2352	1354

Re-Tests

Over 600 children were re-tested at the Health Centres and 584 reported for reading of the Schick test. Of these, only sixteen showed any reaction. In the others, which comprises 97 per cent. of those who reported, there was no reaction to the test, and normally these should be immune against any attack, except a heavy infection of a particularly virulent strain. Occasionally a mild case of disease has been reported in a child who does not react to the Schick test; but this is rare, and generally these children possess a satisfactory degree of immunity to infection.

Use of Combined Prophylactic against Diphtheria and Whooping Cough in an Institution

Since July, 1945, a mixture prepared by the Commonwealth Serum Laboratories has been used for all children up to four years of age at one of the institutions for children. In many ways this is the ideal treatment for infants, as it reduces the number of visits and the distress to mothers and infants of too many injections. At first, very small quantities were given, so as to test whether the material was likely to cause unpleasant reactions. In the course of giving 517 injections only three considerable reactions were seen; one at the original home where the material was tried out, and two at another institution visited in 1947. These reactions were not alarming, and resembled those occasionally found in infants receiving the pure pertussis vaccine. They consisted of a local reaction, with the formation of a local cold abscess, and yielded readily to treatment. In no case was there any general reaction, and I think they can be attributed to a sensitivity to the pertussis fraction, which would have been equally severe with the pure pertussis vaccine. I have always done a preliminary Moloney test before giving the material; but I do not consider this necessary, and I think that infants could receive the injections without testing, as is done when using A.P.T. at the Centres for all children under three years of age. In no case did I observe unpleasant reactions such as have been reported from the use of other similar preparations.

As the work was in the experimental stage it was considered advisable to do the preliminary Moloney test, so that if reactions did occur we had some way of assessing what component of the material was responsible.

Schick tests done on children who have been immunised with this material have been uniformly satisfactory. Over 50 children have been re-tested, and none gave any reaction to the Schick test, showing that the protection given by the material might be considered quite effective against diphtheria.

Laboratory methods of assessing the amount of pertussis antibody in the blood of children who had been immunised were carried out in a few cases; but, owing to lack of staff, it was not possible to do this on a large scale. However, the practical results suggest that we have in this material a valuable weapon in the control of both diphtheria and whooping cough.

During the time that this material has been used, there has been no definite case of whooping cough in the institution. As it has been very prevalent in the general population, some prevalence might have been expected in an institution where children are taken from widely different areas, as, owing to lack of space, isolation is almost impossible. In two instances new entrants developed whooping cough a few days after admission; but, although there were two or three suspicious coughs, no child in contact developed the disease. The Medical Superintendent (Dr. Ingram) and the staff have been enthusiastic about the effects of immunisation against whooping cough, which at one time was the most dreaded of all infections, because of the work it entailed, and the severity of the associated sequelae of the infection.

Altogether 517 separate injections of the material have been given with no ill effects except in the three cases already mentioned. 127 infants received three doses, 33 received two, and 70 only one dose. The figures of uncompleted treatment are regrettable; but, owing to the rapid turnover of institutional children, this is unavoidable, and all have to be given a first dose because there is no way of knowing which child will have left by the time the next dose is due.

SCARLET FEVER

TABLE 1.

Year	No. of Cases	Cases per 100,000	Deaths	Case Fatality	Deaths per 100,000
1933-1947 (average) —————	85	91	0.2	0.2	0.2
1938-1942 (average) —————	233	247	0.6	0.2	0.6
1943 —————	285	287	2	0.7	2
1944 —————	229	228	—	—	—
1945 —————	76	75	1	1.3	1
1946 —————	91	86	—	—	—
1947 —————	59	59	—	—	—

Incidence

There were 59 cases of scarlet fever in 1947, 24 in males and 35 in females. There were no deaths.

Age Incidence of Scarlet Fever

TABLE 11.

Age	Males	Females	Totals	Percentages
0-4 years —————	16	14	30	50
5-9 years —————	6	7	13	22
10-14 years —————	—	11	11	20
15 years and over —————	2	3	5	8
	24	35	59	

The distribution of cases in the age groups is significantly different from our usual experience. Only five cases occurred in adults, compared with twenty-five in 1946, and the comparatively large number of cases seen in adult females in previous year. The large number of cases in the pre-school years is unusual, and suggests a "salting" of the older age groups.

Swabs

Twenty-nine swabs were taken from contacts of cases of scarlet fever. Six of these showed the presence of haemolytic streptococci belonging to one of the groups associated with the disease.

Scarlet Fever in Institutions

Only two cases of scarlet fever occurred in institutions, both in children. Eight cases were reported from Camp Pell.

CEREBRO-SPINAL MENINGITIS

There were only five cases of cerebro-spinal meningitis, two in male infants of five and twelve months of age respectively, one in a girl of two, and two in male adults. The response of this disease to sulphonamide and penicillin therapy has removed most of its terrors. There were no deaths.

POLIOMYELITIS

The occurrence of one case of poliomyelitis in July, and the report of others outside our own municipality caused some anxiety; but, though prevalent, the disease did not give rise to anything like an epidemic.

There were only five cases in the City, three severe, of whom one, a young man aged twenty, died; another, a girl of sixteen, is still in hospital after nine months, and the third, a boy aged seven, still shows a moderate degree of paralysis. The other two cases, both in girls, aged respectively five and seven, were mild. The cases were widely separated; no common factor of infection could be established and only in one instance, that of a companion of the girl aged sixteen, was there any case of suspicious illness in a contact. A curious feature of the case of the girl of sixteen was that her twin sister, who shared all her activities, food, interests and companions, escaped without any symptoms of the disease at all. In this sporadic type of poliomyelitis it is extremely difficult to trace the infection, whereas in the 1937 epidemic, which was due to a different strain of the virus, almost every case could be traced to contact with other infected persons.

TYPHOID FEVER

There was only one case of typhoid fever reported, in a man of thirty-eight. The infection probably occurred at his place of employment in another municipality where he worked as a barman, as another man serving in the hotel also contracted the disease about the same time. In spite of elaborate enquiries, no infection was discovered among contacts and suspects, and it might possibly have been contracted from some itinerant customer.

ANTHRAX

There was one case of anthrax, in a man aged twenty-three, and the rarity of the condition appears to call for a more detailed report than usual, because the implications were so numerous and widespread that it occupied a considerable amount of the attention of the department for many weeks.

On August 1st, the Royal Melbourne Hospital reported a case of anthrax (cutaneous) in a man working in a skin store at North Melbourne. This is the first case to occur in the City for over twenty-five years, and as the anthrax spore is one of the most resistant known, the matter required urgent measures. As Dr. Dale was away I notified the Public Health Department; and Dr. Cole and Dr. Forbes McKenzie, together with Mr. Talbot, Chief Veterinary and Quarantine Officer, were good enough to meet me and discuss the subject.

The skins were from South Africa, and admitted under what should be a very satisfactory certificate of health, so it was disquieting to find that this protective measure had broken down.

I immediately ordered the quarantine of the skins and the shed in which they were stored, and visited the tannery to ascertain if there were any other suspicious cases. One man, who had worked with the patient, showed some lesions; but they were proved by the Royal Melbourne Hospital not to be due to anthrax.

As there were about 10,000 skins, whose value varied from ten to fourteen shillings each, we decided that destruction should not be resorted to until all methods of disinfection had been investigated. Compensation in such a case would be a matter for the Council and State Government, and would have amounted to a considerable sum.

The position was further complicated by the fact that anthrax was found to be present in specimens collected by the proprietor, Mr. Cooper, and given to Messrs. Bennett, of the Public Health Department, and Wood, our Senior Inspector. I then collected six specimens, taking antiseptic precautions and had them examined at the Bacteriological Department, but no anthrax was found on any of these, so we were reassured that the infection was not heavy or widespread.

Dr. Ferris of the Bacteriological Department undertook investigations into various antiseptics recommended in such cases, and we based our recommendations on his results.

The question of the presence of anthrax spores in the dust of the shed, and the protection

of the men handling the skins appeared to be the essential point of the matter. Whether we ordered destruction or disinfection the main risk was in that first handling, and we considered that there was no more danger if the skins could be dumped into an antiseptic than into an incinerator. Also, I was informed by Dr. Albiston that the process of chrome tanning is considered to make skins safe for use, and that, in fact, during the war, precautions had been suspended for all skins to be chrome tanned. It was found that formaldehyde had been proved very effective in dealing with anthrax and this was confirmed by Dr. Ferris's experiments, so a preliminary spraying of all skins, the shed and floors with five per cent. formalin was carried out. The men wore rubber boots, gloves, overalls and dust masks to protect them during this operation, which was superintended by Mr. Wood and myself.

Although it is doubtful whether any one method of treating infected skins will certainly destroy all anthrax spore, it was decided that preliminary sterilization, under aseptic conditions for those handling the skins, followed by the various processes involved in chrome tanning, should make the skins safe by the end of the treatment.

We, therefore, ordered all suspected skins to be soaked in a tank containing the Seymour Jones solution, consisting of a mixture of perchloride of mercury and formic acid, and to be removed by mechanical means to the tank containing lye. Because of the effect on the hands of employees, rubber gloves are customarily employed in handling from this stage onwards, so there was very little danger of infection during the later processes.

The firm concerned co-operated very well, and no more cases were reported. All the premises were sprayed and white-washed before new consignments were admitted. The Quarantine Officer communicated with the authorities in South Africa, pointing out that the certification had apparently broken down somewhere, and it is unlikely that there will be any further trouble from that source.

TUBERCULOSIS

The figures in the following report have been supplied by Sister Roberts, who is Health Visitor to the City of Melbourne, and supervises the sufferers from tuberculosis who live in the City.

TABLE 1.
Number of Cases of Tuberculosis under Supervision

Year	In City on December 31st		Seen During Year	Total
	New	Total		
1940-1944 (average) —————		358	156	
1945 —————	68	389	105	526
1946 —————	87	423	132	521
1947 —————	71	425	108	531

The total number of patients suffering from tuberculosis who were under supervision on December 31st, 1947, was 425, of whom 354 were old cases, and 71 were first notified during the year.

In addition, some patients, both new and old, died or left the district during the year, so that, altogether 531 new cases were dealt with at some time during the year, of whom 108 were new patients.

The rise in the number of cases of tuberculosis under supervision at December 31st may appear disquieting. The figures show an average of 358 during the years 1940-1944, and are 389, 423 and 425 in the last three years.

However, the figures do not justify the conclusion that the number of cases of tuberculosis is increasing. Cases of tuberculosis tend to drift to centres of population where there are better facilities for treatment; emergency housing schemes have provided their quota of cases, mostly in people already known to the Health Visitors in other suburbs; and more cases are reporting for diagnosis in the early stages since an improvement in social services for patients and dependents has removed much of the dread of the disease from an economic point of view.

There has, however, been a decline in the number of new cases reported, as is evident from Table I, and some decline in the number of deaths (see Table III), so that of the total of 425, more are old patients than was the case in former years.

Further details are given in Table Ia.

TABLE Ia
Total Cases under Supervision during 1947

	New		Old		Totals
	Male	Female	Male	Female	
In City on 31/12/47 —————	30	31	163	162	386
In Sanatoria (including Repatriation) on 31/12/47 —	6	4	15	14	39
Total in City on 31/12/47 —————	36	35	178	176	425
Died —————	24	7	22	15	68
Left Melbourne area —————	2	4	14	18	38
Total —————	62	46	214	209	531

The total number of cases seen in 1947 was 531, as compared with 521 in 1946.

TABLE II.

Age Distribution of Cases under Supervision on 31/12/1947

Age	Male	Female	Totals
0-4 years	1	1	2
5-9 years	4	5	9
10-14 years	5	—	5
15-19 years	7	7	14
20-24 years	8	22	30
25-34 years	35	53	88
35-44 years	53	62	115
45-54 years	46	35	81
55-64 years	33	20	53
65 years and over	22	6	28
	214	211	425

The figure for cases in females from 20 - 34 years, 75, is lower than for 1946 when it was 88, but is again much higher than that for males in this age group, which was 43.

Deaths from Tuberculosis

The number of deaths is higher than in 1946. Sixty-eight deaths were notified, compared with fifty-three in 1946; but is slightly lower than the average figure for deaths during the war years.

TABLE III.

Year	No. of deaths
1925-1929 (average annual number)	86
1930-1934 (average annual number)	66
1935-1939 (average annual number)	57
1940-1944 (average annual number)	77
1945	72
1946	53
1947	68

Of the 68 deaths, 46 were in males and 22 in females. Of these, 62 (41 in males and 21 in females) were from the pulmonary form of the disease; 6 (4 males and 1 female) were from non-pulmonary tuberculosis; including 1 (male under one year) from tuberculous meningitis. 7 died in Sanatoria, 29 in hospital, and 32 in their own homes.

Fifteen were known to the department for less than a year before death, fifteen between one and five years, eleven between five and fifteen years, two over fifteen years, and twenty-five were first notified as suffering from tuberculosis after death.

TABLE IV

Age Distribution of Fatal Cases

Years	Male	Female	Totals
0-4 years	1	—	1
5-9 years	—	—	—
10-14 years	—	—	—
15-19 years	—	1	1
20-24 years	—	4	4
25-34 years	2	3	5
35-44 years	6	5	11
45-54 years	8	2	10
55-64 years	15	1	16
65 and over	14	6	20
Totals	46	22	68

As an indication of the rate of the progress of the fatal cases, twelve had been ill for less than a year, sixteen between one and five years, sixteen over five years, thirteen over ten years, seven over fifteen years, and the duration in four cases was unknown.

New Cases

One hundred and eight new cases came under the notice of the department during the year. Of these, 71 (36 in males and 35 in females) were still in the Melbourne area at the end of 1947. Of the others, six (2 males and 4 females) left the district, and 31 (24 males and 7 females) died during the year.

Sanatorium Admissions

There were fewer cases admitted to Sanatoria than during 1946, though the number of cases requiring institutional treatment is still considerably in excess of accommodation. Only twenty-seven (13 male and 14 female) patients were placed in sanatoria, compared with forty-seven in 1946.

Child Contacts

One hundred and thirty-four children under 15 years of age were living in contact with known cases. Twenty-four of these were in contact with a patient with positive sputum. This is a very undesirable state of affairs, but while admissions to sanatoria are so restricted, and it is so difficult to arrange for children to live elsewhere, our only defence is rigorous education of the patient and contacts in the hygienic measures necessary to reduce the danger of infection as far as possible.

In the previous five years, the figures for child contacts of cases of tuberculosis were as follows:—

Year	Number of Children in contact with notified cases	Number of Children where Positive Sputum
1942	183	53
1943	196	60
1944	188	68
1945	144	55
1946	69	25
1947	134	24

OTHER DISEASES

Several districts reported fairly severe prevalence both of measles and whooping cough; but no deaths occurred from either disease. The effectiveness of the new drugs against pneumonia, and other complications of these diseases, has undoubtedly diminished the risk to young children. Also, inoculation of a pertussis vaccine has been carried out at the Health Centres for infants from six to eighteen months old. 333 infants attended, of whom 284 received four doses, 24 received three, 15 received two, and 10 one dose. Often intercurrent illness prevented the child finishing the course, and in a few cases the doses were reduced because of reactions, which, though never severe, were considered to be unduly disturbing in such young children.

ACKNOWLEDGMENTS

I wish to express my appreciation of the work of Sister Dossetor, my assistant in the infectious diseases section, of the nursing and clerical staffs, and also of the Head Teachers and Infant Mistresses for their sympathetic co-operation in the schools.

HILDA W. BULL, B.Sc., M.B., D.P.H.,

REPORT OF CHIEF HEALTH INSPECTOR

Health Department,
Town Hall Chambers, Melbourne.
15th April, 1948.

The Medical Officer of Health.

Sir,

I have the honour to submit a report for the year 1947 upon the varied activities of the Department coming under my direction which are governed by the provisions of the following Acts and Regulations

ACTS AND REGULATIONS

Acts:

Health Acts, Slum Reclamation and Housing Acts, Local Government Act, Factories Acts, Police Offences Acts, Melbourne and Geelong Corporation Act, Goods Act, Births Notification Acts, Sale of Horseflesh Act.

Regulations under Health Act:

Registration, Rat Destruction, Hairdressers' Shops, Offensive Trades, Seizures (Claims), Eating House, Camping, General Sanitary, Analysis, Septic Tanks, Cattle Sale Yards, Infectious Diseases, Cleanliness (Food), Food and Drug Standards, Nightsoil, Smoke Abatement, Tobacco Packages, Stream Pollution, Fire Prevention, Building (Tent), Boarding and Lodging House.

Other Regulations:

Housing Standard of Habitation Regulations, Regulations under the Goods Act.

By-Laws and Regulations:

By-Laws and Regulations of the Council relating to Places of Amusement, Public Buildings, Dancing Saloons, Fowl Yards, etc., are also administered by the Department.

HOUSING

Slum Reclamation, as such, is something which still awaits the future for its fulfilment, and consequently sub-standard housing, progressively deteriorating, is constantly engaging us in an almost futile endeavour to maintain these properties in some semblance of habitability. Our efforts in this direction are considerably handicapped by the inability of owners to find tradesmen and material to effect the necessary repairs. The larger contractors, who have access to material will not undertake the lesser jobs, whilst the jobbing contractors, on whom we rely for the major portion of the work, have difficulty both in securing labour and in obtaining materials in small quantities. This difficulty also applies to other branches of our work where structural repairs, renovations and replacements are necessary to make premises comply with the several Regulations. The position is so acute as to warrant an approach to the Government with a view to the allocation of material for repair work and the setting up of some central depot where small contractors could obtain their necessary requirements on the production of notices forwarded to owners by the Department.

In the work under the Slum Reclamation and Housing Acts, the staff, as agents of the Housing Commission, have carried out 351 inspections and re-inspections for work in progress. Statutory reports to the Commission dealing with sub-standard houses, which have been kept at a minimum because of the difficulties before mentioned, numbered ten (10). Of this number five (5) were classified in List "A" for demolition, and five (5) in list "B" for repairs to comply with the Regulations. In connection with properties where notices had already been served there were also 154 progress reports submitted to the Commission.

Acting upon reports submitted during the year and in the latter part of 1946, the Commission declared ten (10) houses unfit for human habitation, four (4) of which were classified for demolition and six (6) for repairs in compliance with the Standard of Habitation Regulations. Notices were accordingly prepared and served on the owners of these properties.

In compliance with notices issued, four (4) premises were demolished in North Melbourne, whilst three (3) houses were completely renovated and repaired in compliance with the Regulations in the Carlton area. Urgent repairs, relating to deferments, were carried out at six (6) premises, whilst work of a somewhat desultory nature was in progress at a number of other properties.

The policy of offering deferments to owners, both with regard to demolition and repairs, is still being carried out and there seems little prospect of resorting to the original specified time of thirty (30) days for compliance, until such times as the overall housing shortage is overtaken and a more balanced distribution of material is effected.

The total numbers of houses reported, of notices served and of compliances since the coming into operation of the Housing legislation in 1940 is shown in the following tables.

TABLE "A"
Houses Reported

Demolition	534
Repairs	226

TABLE "B"
Notices Served

Demolition	433
Repairs	188

TABLE "C"
Compliance with Notices

Demolished	232
Repairs	61
Urgent Repairs (where deferment granted)	110

The total number of demolitions of dwellings within the City during the year was four (4), making a total of 367 demolitions since 1940.

The re-housing of families is not now limited to those likely to be disturbed as a result of notices served on the owners of properties by the Commission, and consequently only a very restricted number of such families have been included. Out of a total of 77 families, consisting of 162 adults and 223 children, rehoused in 1947, only 5, comprising 16 adults and 17 children, came from premises that had been reported within the City area. The total number of families re-housed from Melbourne City since 1940 is 324, consisting of 512 adults and 610 children.

Working under the Nuisance section of the Health Act relating to housing defects, we are able to cover much more ground and get more expeditious results than under the Housing Acts, as in these instances only the urgent defects, mostly the subject of complaints, are investigated. The owners are directly notified in writing on receipt of the inspector's report and earlier attention is therefore made possible. During the year 642 defects of houses, such as leaking roofs, dampness in walls, defective sanitary fittings, drainage, etc., have been dealt with under the Health Act. Notices were served on the owners to carry out such urgent repairs as were specified. Resulting from current notices issued and those carried forward from the previous year, repairs and renovations were effected at 515 premises and work was in progress at a number of other properties at the close of the year.

FOOD AND FOOD PREMISES

Strict attention has been given by the staff to the important work of the supervision of all premises where food is manufactured, prepared, stored or exposed for sale, which include such businesses as factories, hotels, boarding houses, grocers, greengrocers, butchers, delicatessen, small-goods, bakers, sandwich shops, grain stores, dairies, and confectionery, and total approximately 1300 premises. In addition regular inspections were made of the 489 eating houses and 338 premises where ice cream, ices, cordials, etc. are manufactured, all of which have to be registered annually with the Council. These premises generally were found to be well maintained and conducted in conformity with the Health Acts and Regulations.

The difficulty with regard to man-power problems and the employment of inexperienced staff, whilst showing signs of diminishing, is still troublesome, but most businesses are slowly regaining more or less their normal condition.

Milk bars throughout the City have continued to claim our special attention, both with regard to the general cleanliness of the premises, utensils and other equipment used in the preparation of drinks and particularly to the condition and cleansing of the glassware and crockery in use.

Samples of "drinking" milk were taken regularly at these premises, for chemical analysis, throughout the year, details of which are reported under the heading of "Food Sampling."

Hotel bars have also been continuously supervised for the cleansing of glasses and the colouring of waste beer, and in this connection a considerable improvement has been effected and maintained. A number of hotels have now installed automatic glass washers, which appear to be effective and seem to be giving satisfaction.

The position with regard to crockery, glassware and cutlery has shown some improvement, and caterers are finding less difficulty in replenishing their stocks. Every care has been taken during inspections to prevent the use of damaged crockery and glassware, and 645 pieces of crockery and 301 pieces of glassware were seized and destroyed at various establishments throughout the year.

Renovations and repairs were carried out at 26 food premises, other than registered premises, which are fully reported upon under the heading of Registered Premises, Page 28.

FOOD SAMPLING

In addition to the inspection of food premises there is also carried out the systematic collection of food samples for chemical and bacteriological examinations. Four hundred and fifty-three (453) samples of foodstuffs were procured for chemical analysis, comprising, butter 8 (15); cheese 9 (12); coffee 7 (6); cream 1 (6); ice cream 8 (4); jam 10 (9); milk 346 (344); pepper 6 (3); sausage meat 36 (39); chopped meat 13 (-); sauces 5 (6); vinegar 4 (6). The figures in brackets indicate the number of samples submitted the previous year.

Of the total number of samples submitted, 16, or 3.5 per cent., failed to comply with the standard, whilst 5 samples failed to comply with the labelling requirements of the Food Standards Regulations. The number of samples below standard included six (6) milks, four (4) sausage meat, and six (6) chopped meat. In addition to the samples of sausage meat which did not comply with the standard three (3) others failed to comply with the requirements of the Food

Standards Regulations, the packages not being labelled that they contained preservative. Two (2) samples of jam failed to disclose on the label the nature of the fruit from which the jam was manufactured.

The total number of milk samples procured during the year was 346, involving 98 vendors, consisting of 26 dairymen, 8 house trade dairies, 2 producers, and 62 milk bars, 340 samples, or 98.3 per cent of the total from all sources, complied with the standard. Six (6) samples or 1.7 per cent, did not comply with the standard. The percentage of failures is the lowest recorded since 1939, and only on two other occasions, in 1928 and 1946, was the percentage under 2 per cent.

Samples taken from milk carts in course of delivery numbered 256 and consisted of 140 from bulk supplies and 116 from "bottled" milk. 75 samples of "drinking" milk were obtained from City milk bars, 10 from house trade dairies, and 5 producers' samples.

Of the six samples found below standard, five (5) were from delivery carts, all from bulk supplies, and one (1) represented a producer's sample. In all instances the deficiency related to non-fatty solids and as shown by the Freezing Point Test indicated the presence of added water. Proceedings were instituted in all cases, details of which are recorded in the report under the heading "Prosecutions."

An analysis of the figures shows the average quality of milk per sample as follows:—

	Total Solids	Non-Fats	Fats
All Sources	13.45	9.04	4.41
Bulk Supplies	13.50	9.02	4.48
Bottled Samples	13.39	9.02	4.36
Producers' Samples	13.04	8.96	4.08
Milk Bars	13.46	9.08	4.32
House Trade Dairies	13.78	9.19	4.59

The following comparative table shows the average quality of milk per sample during the past 10 year period and also the percentage of samples which did not comply with the standard.

Year	No. of Samples	Total Solids	Non-Fats	Fats	Percentage of samples below standard
1938	269	13.11	8.97	4.14	5.2%
1939	275	13.38	9.18	4.20	1.99%
1940	279	13.24	8.98	4.26	3.2%
1941	281	13.27	9.03	4.24	2.8%
1942	274	13.18	9.00	4.18	5.8%
1943	305	13.12	8.92	4.20	6.6%
1944	331	13.15	8.93	4.22	4.6%
1945	347	13.10	8.97	4.13	6.9%
1946	344	13.39	9.09	4.30	1.8%
1947	346	13.45	9.04	4.41	1.7%

The following list gives particulars of the number of samples taken from each vendor or source, and the average quality of the milk supplied. It shows that the average quality of milk is even higher than last year, the figures being the highest attained since records have been kept. (As shown in the previous comparative table the average milk fat per sample was 4.41).

Group "A" represents 14 dairymen (54 per cent of vendors concerned) from whom 7 or more samples were obtained. Group "B" represents 5 dairymen (19 per cent of vendors) whose supplies were sampled from 4 to 6 times during the year. Group "C" represents 7 dairymen (27 per cent of vendors) from whom 3 or less samples were taken. Group "D" represents Producers' samples, Group "E" represents "House Trade Dairies" and Group "F" milk bars.

CHEMICAL ANALYSIS OF MILK 1947

SUMMARY OF AVERAGES

DELIVERY CARTS

GROUP "A"

(Over six (6) samples)

Fourteen (14) Vendors

No.	Average Quality per Sample				Remarks
	No. of Samples	Total Solids	Non-Fats	Fats	
1.	24	13.8	9.1	4.7	One sample below standard.
2.	21	13.7	9.1	4.6	
3.	23	13.6	9.0	4.6	
4.	11	13.4	8.8	4.6	
5.	7	13.6	9.1	4.5	
6.	17	13.4	8.9	4.5	Three samples below standard.
7.	8	13.5	9.1	4.4	
8.	13	13.4	9.1	4.3	
9.	10	13.3	9.0	4.3	
10.	10	13.2	9.0	4.2	
11.	24	13.1	8.9	4.2	
12.	24	13.1	8.9	4.2	
13.	12	13.2	9.1	4.1	
14.	10	13.0	8.9	4.1	

GROUP "B"
Over three (3) and under seven (7) samples
Five (5) Vendors

No.	No. of Samples	Average Quality per Sample			Remarks
		Total Solids	Non-Fats	Fats	
1. — — — — —	6	13.8	9.0	4.8	One sample below standard.
2. — — — — —	6	13.5	8.9	4.6	
3. — — — — —	6	13.3	8.9	4.4	
4. — — — — —	5	13.3	9.0	4.3	
5. — — — — —	5	13.2	9.2	4.0	

GROUP "C"
(Three (3) samples and under)
Seven (7) Vendors

No.	No. of Samples	Average Quality per Sample			Remarks
		Total Solids	Non-Fats	Fats	
1. — — — — —	2	14.1	9.2	4.9	
2. — — — — —	2	13.5	8.7	4.8	
3. — — — — —	2	13.6	9.1	4.5	
4. — — — — —	2	13.5	9.1	4.4	
5. — — — — —	2	13.4	9.1	4.3	
6. — — — — —	2	13.3	9.0	4.3	
7. — — — — —	2	12.9	9.0	3.9	

GROUP "D"
PRODUCERS
Two (2) Vendors

No.	No. of Samples	Average Quality per Sample			Remarks
		Total Solids	Non-Fats	Fats	
1. — — — — —	4	13.2	9.2	4.0	One sample below standard.
2. — — — — —	1	13.33	8.12	4.21	

GROUP "E"
HOUSE TRADE DAIRIES
Eight (8) Vendors

No.	No. of Samples	Average Quality per Sample			Remarks
		Total Solids	Non-Fats	Fats	
8. — — — — —	10	13.7	9.1	4.6	

GROUP "F"
62 MILK BARS
"Drinking Milk"

No.	No. of Samples	Average Quality per Sample			Remarks
		Total Solids	Non-Fats	Fats	
62. — — — — —	75	13.4	9.1	4.3	

BACTERIOLOGICAL EXAMINATION OF MILK SAMPLES

The customary practice of submitting samples of milk for bacteriological examination to the Veterinary Research Institute, Parkville, was terminated at the end of April, owing to congestion at the Milk Laboratory due to an increase in the number of samples received as a result of extended activities of the Dairy Supervision Branch of the Agriculture Department; consequently this report only refers to the early period of the year.

The report of the Department of samples obtained in the Melbourne City area for the remainder of the year is appended, and it will be seen that it is in general terms only and not so informative as our previous reports have been.

During the four months there were 72 samples of milk submitted, 24 from the companies supplying milk under the Council's subsidised scheme, 36 from carts in course of delivery, and 12 from a metropolitan hospital. The results of these examinations show that the average improvement noted last year has not been maintained during this period; since, however, this period is the hottest of the year the results are not properly comparable with those of a full year, and the comparative tables published over the years 1936 to 1946 have, therefore, been omitted. Thirteen (13) samples, or 18 per cent, were higher than the standard tentatively accepted as reasonable. There was, however, no evidence of the streptococci of mastitis or of gross bacterial contamination shown in these samples.

All the samples submitted to the laboratory were from pasteurised milk supplies and all were subjected to the phosphatase test with the following results, which indicate that except in the case of samples from delivery carts careful attention had been given by the vendors to the actual operation of pasteurisation.

Source	No. of samples	Complied with the test	Percentage	Failed to comply	Percentage
All Sources	72	51	70.8%	21	29.2%
Subsidised Milk	24	23	95.8%	1	4.2%
Metropolitan Hospital	12	12	100.0%	—	—
Carts in course of delivery and other sources	36	16	44.0%	20	56.0%

The attached Table "A" gives a comparative summary of the average counts of the different milks.

BACTERIOLOGICAL EXAMINATIONS OF MILK SAMPLES — 1947

TABLE "A"

COMPARATIVE SUMMARY OF AVERAGE COUNTS OF DIFFERENT MILKS

(The Counts give the number of Germs per cubic centimetre of milk.)

Vendor	No. of Samples	Microscopic Count Average (Logarithmic)	% of samples under 1 million	Agar Plate Count Average (Logarithmic)	% of samples under 50,000	E. coli in 1 ml. Percentages	Remarks
All Sources	72	150,000	81.9%	100,000	29.1%	—58.0% +42.0%	41 letters
Vendor "A"	12	54,000	100.0%	47,000	50.0%	—58.0% +42.0%	6 letters
Pasteurised Vendor "B"	12	32,000	100.0%	34,000	75.0%	—83.0% +17.0%	3 letters
Pasteurised Vendor "C"	12	100,000	83.0%	90,000	17.0%	—100.0% + —	5 letters
Pasteurised Metropolitan Hospital							
Milk Carts in course of delivery and other sources.	36	420,000	69.4%	210,000	11.2%	—36.0% +64.0%	27 letters

Under present conditions a sample of milk may reasonably be expected to contain less than 1 million germs per cubic centimetre as shown by direct microscopic count (Column 1), less than 50,000 germs per cubic centimetre capable of growing at blood heat (Column 2), and absence of bacillus coli which is derived from filth, in one-hundredth part of a milli-litre (Column 3).

The Table shows what proportion of the samples attained this standard.

DAIRYING DIVISION — DEPARTMENT OF AGRICULTURE

Results of the Examination of Samples from May to December, 1947, taken from the eleven Registered Dairies within the City of Melbourne

(1) Non-pasteurised milk — Direct Microscopic Count Method

CARLTON—

No.	Total Samples	Complied
1.	15	14
2.	11	10
3.	8	3
4.	10	8

FLEMINGTON & KENSINGTON—

5.	6	6
6.	28	22

NORTH MELBOURNE—

7.	15	15
8.	13	11
9.	4	2
10.	10	7
11.	10	6

130 104 80% compliance

(2) Pasteurised Milk

The only "pasteurising" dairy situated within the City of Melbourne is at Flemington, from which 39 additional samples were obtained and submitted to special tests for the purpose of ascertaining the efficiency of pasteurisation.

Fourteen such checks were made and 39 samples obtained, of which—

16	complied in respect of Standard Plate Count
37	" " " " Coliform Test
39	" " " " Phosphatase Test

SWIMMING BATHS

Attention has again been given to the condition of the water in the various swimming pools throughout the City. Twenty-five (25) samples of water were submitted for bacteriological examination during the warm weather period. The samples were all taken during the afternoon when the pools were in active use by large numbers of bathers. The results of these examinations, together with those for free chlorine in the water, indicate that the purification plants were working satisfactorily.

RODENT CONTROL

This important obligation has engaged the services of both the Inspectorial and Rat staff throughout the year, and has been well maintained within the City proper where food premises, shops, factories and warehouses have been given regular and systematic attention. The practice followed in the outer areas, on receipt of complaints, is for the District Inspector to investigate, give advice and instruction on the setting of traps and the laying of poison baits, the rat gang only visiting in the event of major infestations being discovered.

We have again been fortunate in that no abnormal conditions were noticed that would indicate any sickness in the rat population and consequently it was unnecessary to submit any specimens for bacteriological examination.

The following table indicates the extent of the operation of inspectors and rat gang. In addition to the work shown in the table, the rat staff prepared 91,000 poison baits, of which 56,000 were laid by the staff and 35,000 supplied to ratepayers, together with directions how the baits should be used. There are no definite means of ascertaining the effectiveness of the baits, but it can be assumed that a very large number of rats were killed in addition to those shown in the table as destroyed by trapping and the use of dogs.

Complaints attended to	Notices under Rat Regulations	Premises visited	No. of premises where structural work carried out	Total No. of Rodents destroyed
478	517	2,662	192	Rats 6,480 Mice 375 <hr/> 6,855

The species of rats caught and destroyed during the year is shown in the following table which gives a comparison for the 10 year period, and shows the differentiation between the sub-species of black rats.

Year	M. Rattus	M. Alex.	M. Norveg	Total
1938	957	2379	4708	8044
1939	1090	2065	4252	7407
1940	923	1620	3933	6576
1941	924	1510	4172	6606
1942	1034	1648	3298	5980
1943	951	2075	4743	7769
1944	546	1540	5933	8019
1945	499	1515	4575	6989
1946	698	1594	4344	6636
1947	1078	1266	4136	6480

REGISTERED PREMISES

Registrations effected under the Health Act during the year numbered 1725, which shows an increase of 187 in the five year period 1943-1947. Details, including transfers and other particulars, are shown in the following schedule:—

REGISTRATIONS

Premises	No. registered	No. not renewed	No. altns. repairs or renovations	No. new registrations	No. of transfers
Boarding Houses	772	19	103	37	86
Eating Houses	489	23	65	18	128
Ice Cream and Aerated Waters, etc.	337	8	7	63	78
Common Lodging Houses	6	—	—	—	—
Cattle Sale Yards	1	—	—	—	—
Premises where Eggs are Chilled	4	—	—	—	—
Offensive Trades	116	3	10	3	1
Totals	1725	53	185	121	293

Under the Council's By-Laws and Regulations 33 dancing saloons and 4 places of pastime were also registered.

BOARDING HOUSES

The registrations for boarding and lodging houses totalled 778, being an increase of 18 over the previous year, and indicates the continuous demand for rooms owing to the acute shortage of housing. These premises are regularly inspected for general cleanliness and to prevent breaches with regard to overcrowding; this presents difficulties at times, but having regard to the fact that people must be housed, sympathetic consideration is given to all such problems. Notices to effect repairs and renovations were served on the proprietors in 93 instances and in compliance with these and notices previously issued, improvements were effected at 103 premises.

EATING HOUSES

The total number of eating houses registered is 489. There were 23 such premises abolished during the year, but this number is off-set by 18 new establishments, which leaves the total showing a decrease of 5 when compared with the previous year. A survey of eating houses was carried out with the object of ascertaining the degree of compliance with the Eating House Regulations. 375 of these premises were inspected in detail, notices for improvements were served in 158 instances, improvements and renovations were completed at 80 premises, and work at the other premises was in various stages of progress.

TRANSFERS

A total of 293 transfers of proprietorship was effected during the year in registered premises and again reflects the competition to secure these types of businesses. The number in each category remains fairly constant. Strict surveillance is required to ensure that the transfers are effected in accordance with the Regulations.

GAS APPLIANCES

The arrangements with the Metropolitan Gas Company regarding applications for the installation of gas cooking appliances in boarding, apartment and dwelling houses, has continued to

function satisfactorily. During the year 21 applications were dealt with, 19 were approved whilst approval in two cases was refused because of unsuitable location. This control enables us to more effectively supervise the fitting of appliances under conditions which might be contrary to the Boarding House and Standard of Habitation Regulations.

OFFENSIVE TRADES

Applications received under Section 82 of the Health Act 1928 for the consent of the Council to establish an offensive trade numbered three. Consent was granted in two instances, one for a dried skin store and one for the storing and drying of rabbit skins. One application for fat rendering for dripping at a butcher's shop was refused. Two applications to alter and extend premises at a wool-scouring establishment and a rag picking and sorting establishment were consented to.

In the administration of the Offensive Trades Regulations and the relevant sections of the Health Act, 872 visits of inspection were made to registered premises, the condition of which was generally found to be satisfactory.

The number of offensive trades registered for the year was 116, which are shown under the following classifications:—

Bone boiling and milling, 2; Fat extracting or melting, 25; Fellmongery, woolscouring and woolwashing, 14; Flock, shoddy or mungo manufacture, 2; Glue or size factories, 1; Gut cleaning or scraping, 2; Knackers' Yards, 2; Manure Works, 2; Marine Stores, 10; Poultry killing, cleaning and dressing, 8; Rag picking or sorting, 2; Soap Works, 2; Store for skins, hides, hoofs, hair or bones, 47; Boiling down works, 1; Oil boiling, 1; Fish curing, 1; Abattoirs, 1; Refuse Destructor, 1; Tip, 1.

HAIRDRESSING SALOONS

In conjunction with the Hairdressers Registration Board of Victoria regular inspections were made of male and female hairdressing establishments throughout the City areas, and from reports submitted it is found that these premises generally are capably managed and kept in compliance with the Health Act.

STABLES

Stables throughout the whole City area are kept under regular supervision to secure general cleanliness, and, in an endeavour to combat the fly menace, special care is exercised during the summer months to ensure the regular removal of manure and the cleansing of manure pits.

A By-Law, No. 276, governing the registration, management and control of stables was gazetted towards the end of the year and registration of these premises will come into operation on 1st January, 1948.

SMOKE NUISANCE

The problem of smoke and soot, common to all large cities, has received constant attention during the year in order to keep the nuisance down to a minimum. The provisions of the Smoke Regulations are designed to regulate the emission of dense smoke, soot, grit and dust from chimneys, other than those of a dwelling house, and under its power it is possible to effect improvements by alterations to furnaces, regular sweeping of chimneys, or by recommending a change of fuel, although, owing to the scarcity of brown coal briquettes, this is difficult at the present time. During the year 38 complaints were received and alterations were effected to 6 furnaces, whilst minor improvements were carried out in 20 instances at cafes and boarding houses.

SANITARY SERVICES

Temporary sanitary services were installed at 25 buildings in course of erection and alteration and at the Henley Carnival, involving approximately 1300 clearances for the year.

The night-soil is transported by motor truck to the Melbourne and Metropolitan Board of Works Depot at Campbellfield.

INVESTIGATIONS

One thousand five hundred and forty-six complaints were received and investigated during the year. An analysis of these figures shows that 748 dealt with the rat problem, 642 related to various phases of defective housing, 87 to foodstuffs and food premises, 97 to unsatisfactory garbage bins and refuse, 38 to smoke nuisance, 56 to yards and drainage of premises, 9 to vermin in dwellings, and the remainder, 139, are grouped as miscellaneous.

PUBLIC BUILDINGS

In conjunction with officers of the Public Health Department, theatres and other public buildings have been regularly inspected both during the day and night. In addition, all dancing saloons and Places of Pastime registered under the Council's By-Laws and Regulations have been under constant supervision. These premises generally are being conducted in conformity with the By-Laws and Regulations.

HOUSE TO HOUSE INSPECTIONS

In continuance of the house to house survey instituted at the latter end of last year, 7435 premises have been inspected. Defective or irregular garbage bins were found in 1262 instances, accumulation of rubbish likely to harbour rats was found on 203 premises, definite rat infestation was discovered at 399 properties, whilst 67 fowl yards were found not to be in compliance with the Council's By-Laws. In all, 1931 notices were issued, all of which were complied with before the end of the year.

SUMMARY OF ROUTINE WORK CARRIED OUT DURING 1947

No. of complaints received and attended to	1546
Reinspections for compliance with notices	3483
Fire reports received and attended to	226
Inspections and reinspections under Slum Reclamation and Housing Acts	351
Reports forwarded to Housing Commission	65
Notices served under Slum Reclamation and Housing Acts	10
Specifications forwarded to owners under Slum Reclamation and Housing Acts	6
Inspections and reinspections made under Health Act	1345
No. of specifications forwarded to owners and proprietors under Health Act	708
Inspections of boarding and lodging houses	3367
Inspections of hotel bars	1353
Inspections of eating houses	7007
Inspections of ice cream and aerated water premises	3041
Inspections of factories (where food is manufactured)	1122
Inspections of other food premises	8344
Seizures of foodstuffs (consisting of 4—1 lb. tins of Cheddar Cheese, 7 lbs. Walnuts, 50 lb. White sugar, 40 lb. Brown sugar, 4 lb. salt, together with a large quantity of foodstuffs damaged by fire at a grocery establishment	
Inspections of public buildings (day and evening)	729
Inspections of hairdressings saloons	522
Inspections of offensive trades and cattle sale yards	872
Inspections of vacant land	145
Inspections of yards and refuse	26769
Inspections of stables and manure bins	1072
Interviews with property owners, architects, contractors, etc	7180
Inspections by female staff of premises where females employed	165
Investigations of infectious disease and instructions to householders (scarlet fever 55; diphtheria 20, other infectious diseases 10)	85
Investigation of tuberculosis and domiciliary visits	1393
Visits to Health Centres (26) and midwives (142)	168
Returns of infectious disease furnished to Public Health Department	154
Notifications of infectious disease forwarded to Headmasters	12
Returns of registrations and transfers forwarded to Public Health Department	414
No. of Notices received under Births Notification Acts	1961
Plans of new buildings and alterations examined	77
Notices served to secure the abatement of Nuisances:—	
(a) Defective sanitary conveniences	159
(b) Defective drainage	46
(c) Dirty premises and yard	189
(d) Accumulation of refuse and rubbish	146
(e) Defective and irregular garbage bins	1192
(f) Dirty and defective stables	4
(g) Other nuisances	153
	1889
Matters referred to other Departments—City Engineer 29, Building Surveyor 17, Dog Inspector 3	49
Premises within the City registered by Factories Department — Factories 2856, Shops 3657	6513

NEW LEGISLATION

Camping Regulations 1946.
Amending Food and Drug Standards Regulations 1947.
Amending Meat Transport Regulations 1947
Health (Patent Medicines) Act 1942. (Proclamation to come into operation 2nd February, 1948).
Amending Food and Drug Standards Regulations 1947 (No. 2).
Amending Infectious Diseases Regulations 1947.
Amending Cleanliness (Food) Regulations 1947.

PROSECUTIONS

Proceedings under the Health Act were undertaken in 33 instances, 10 affecting employees, were withdrawn. One case, involving two samples, against a dairyman was dismissed on the ground of reasonable precautions, and one case against the same dairyman was withdrawn as a result of the reasonable precautions decision. One case of adulterated milk against a producer was not proceeded with owing to the decease of the vendor, and one case against a licensee for failing to colour waste beer was not proceeded with as the defendant had left the State. In 19 instances the defendants were convicted and fined as follows.—

Nature of Offence	No. of Cases	Fines	Costs
Selling adulterated sausage meat	4	£6 0 0	£12 0 0
Selling adulterated chopped meat	6	11 0 0	16 17 6
Failing to label package of food containing preservative (Sausage Meat)	1	2 0 0	2 7 0
Failing to include name of jam on label	2	6 0 0	6 16 0
Selling adulterated milk	2	5 5 0	7 17 6
Failing to colour waste beer	2	2 0 0	3 3 0
Smoking on food premises	1	4 0 0	—
Insanitary premises	1	5 0 0	2 10 0
Totals	19	£41 5 0	£51 11 0

GENERAL

Notwithstanding the many difficulties still being met with, particularly with regard to lack of labour and shortage of material, much useful work has been accomplished and I wish to record my sincere appreciation of the loyal co-operation and assistance rendered by the inspectorial, clerical and out-door staffs during the year.

THOS. G. O. JORDAN, F.R.S.I.
Chief Health Inspector.

REPORT OF DENTAL OFFICER

13 McKinley Avenue, Malvern, S.E.4.
12th April, 1948.

The Medical Officer of Health.

Sir,

I beg to submit the report of activities at the Dental Sections of Kensington and Newry Street North Carlton, Health Centres for the year 1947.

	Kensington Health Centre	Newry Street Health Centre
No. of children (1 to 5 years) contacted	365	287
Treatments: Silver nitrate, sodium fluoride applications, teeth cleaning, instructions to mothers	937	422
Fillings	125	191
Extractions	66	34
Referred to Dental Hospital	19	19
Naturally sound or good mouths found	68	22
Mouths exhibiting poor oral hygiene	31	26
Malformations due to thumb or finger sucking or undue retention of use of comforters	10	6

Periodical examinations of the children at the Lady Gowrie Child Centre and talks on oral hygiene to mothers were undertaken during the year.

The dental inspection, treatment and advice is eagerly sought by the young mothers for their children and undoubtedly is of great value as is proved by the quarterly examination of children first treated 12 months ago. The children are encouraged to accept dental treatment without undue fear and very few intractable cases are encountered.

I wish again to thank Sisters Pannell and Price of Kensington, and Sister Baglin and helpers of Newry Street, for their helpful co-operation.

E. R. REEVE, B.D.Sc., L.D.S.,

REPORT OF CITY ANALYSTS

Melbourne Analytical Laboratory,
27 William Street, Melbourne,
14th January, 1948

The Chairman, Health Committee,
City of Melbourne.

Sir,

We have the honour to report that during the year ended 31st December, 1947, we have received four hundred and fifty-three (453) samples of Foods and Drugs. The following is a brief summary of the results obtained from the Analytical Examinations.

Milk—346 samples	340 samples complied with the standard. 5 samples were below the minimum allowed in their amounts of solids not fat. The Freezing Points (Hortvet) also did not comply with the standard. One (1) sample was below the minimum allowed in its amounts of total solids and solids not fat. The Freezing Point (Hortvet) also did not comply with the standard.
Sausage Meat—36 samples	2 contained no sulphur dioxide, 6 contained not more than traces of sulphur dioxide, 24 contained respectively 0.4, 0.4, 0.5, 0.5, 0.6, 0.7, 0.8, 0.8, 1.1, 1.1, 1.3, 1.4, 1.5, 1.8, 1.8, 2.0, 2.2, 2.2, 2.2, 2.3, 2.8, 2.9 and 3.4 grains of sulphur dioxide to the pound. 4 contained respectively 4.5, 5.8, 6.4 and 14.4 grains of sulphur dioxide to the pound, which is in excess of the maximum allowed. No boric acid, saltpetre, nitrite or excess starch was detected in the samples.
Chopped Meat—13 samples	4 contained no sulphur dioxide, 3 contained not more than traces of sulphur dioxide and 6 contained respectively 0.7, 1.3, 1.7, 2.0, 5.8 and 17.2 grains of sulphur dioxide to the pound. No boric acid, saltpetre, nitrite or starch was detected in the samples.
Ice Cream—8 samples	5 complied with the standard and 3 complied with the standard in regard to their fat contents. No boric acid, starch, lead or arsenic was detected in the samples. The samples were too small for further examination.
Tomato Sauce—5 samples	No adulteration was detected. Of these, one sample contained 0.08 per cent of benzoic acid.
White Pepper—6 samples	5 complied with the standard, except that one of the samples contained a trace of foreign starch. One (1) contained more than the maximum allowed in its amount of crude fibre.
Mixed Jam—8 samples	5 complied with the standard, one contained coal-tar colouring, one contained not less than 2 per cent of apple and one contained coal-tar colouring and not less than 2 per cent of apple.
Jam—2 samples	Complied with standard.
Vinegar—4 samples	Complied with standard.
Coffee—7 samples	Complied with standard.
Butter—8 samples	Complied with standard.
Cheese—9 samples	Complied with standard.
Cream—1 sample	Complied with standard.

Yours obediently,
(Signed) DUNN, SON & STONE.
(Analysts of the City of Melbourne)

REPORT OF BACTERIOLOGICAL EXAMINATIONS

The University of Melbourne,
Bacteriology Department,
Melbourne, N.3.,
25th February, 1948.

**Annual report on the Bacteriological Examinations undertaken on
behalf of the Melbourne City Council by the Bacteriological
Laboratory, Melbourne University, for the year 1947.**

Diphtheria—A total of 234 swabs from case contacts were examined and from 39 diphtheria organisms were isolated.

Scarlet Fever—A total of 25 swabs were cultured and from 21 haemolytic streptococci were isolated.

Water—32 samples from swimming baths were examined and reported for total count of bacteria and *B. coli* content.

Anthrax—Mercuric chloride-formic acid solution was cultured and proved bactericidal to anthrax spores.

Six hide samples were examined for presence of *B. anthracis* and sporing aerobes and anaerobes.

(Signed) SYDNEY B. RUBBO,
Professor of Bacteriology.



