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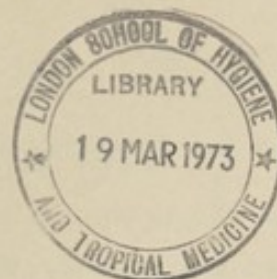
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VICTORIA



FIFTIETH REPORT

OF THE

COMMISSION OF PUBLIC HEALTH

FOR THE

YEAR ENDED 30TH JUNE, 1972

PRESENTED TO BOTH HOUSES OF PARLIAMENT PURSUANT TO SECTION 23 (3)
OF THE HEALTH ACT 1958

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COMMISSION OF PUBLIC HEALTH

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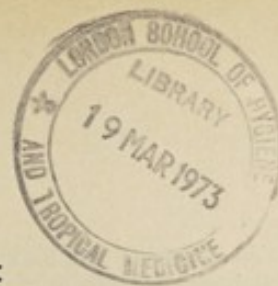
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FIFTIETH REPORT OF THE COMMISSION OF PUBLIC HEALTH 1971-72

To the Honorable John Frederick Rossiter, M.L.A.

SIR,

We have the honour to submit, in accordance with Section 23 (3) of the *Health Act* 1958, our report for the year ended 30th June, 1972.

It is pleasing to report once again that generally the health of the people of Victoria remains at a high level. This satisfactory position should not be the cause for complacency for despite the success of immunisation programmes, the discovery and use of new drugs, the introduction of advanced modern treatment methods and the carrying out of basic procedures in hygiene which have led to the effective control of many of the most troublesome infectious diseases of the past, there are invariably isolated reports each year of some of the more serious diseases. An example of this was the notification during 1971 of poliomyelitis in an adult male who had not been immunised against the disease. Of less serious but nevertheless important significance was the notification of 36 cases of imported malaria. Not one of the persons concerned had undertaken a course of "curative" treatment after arrival in Victoria from malarious areas despite the publicity of this aspect in the press and travel brochures.

In the reports of the Commission for the years 1963-64 and 1965-66 reference was made to the increasing demands for higher standards of environmental control required in a highly industrialised community which throw an ever-increasing responsibility on the General Health Branch of the Department of Health as the executive of the Commission of Public Health. This responsibility is to be further increased by the impending proclamation of the Environment Protection Act which will give to the Commission the power to veto the issue by the Environment Protection Authority of any licence for the discharge of a waste of any kind if the Commission is of the opinion that the public health is likely to be endangered.

In the matter of protection of the environment there is a particular problem in relation to the disposal of liquid industrial wastes. Suitable sites within the Metropolitan area have been under close investigation during the past year for the treatment and disposal of increasing quantities of liquid industrial wastes without detriment to surface and underground waters.

An Interdepartmental Committee, set up by Government direction, has decided on two sites for the short and long-term solutions of this problem and recommendations have already been made to the Government.

In the near future, a large regional centralized plant will be established in a remote area to treat all types of liquid and noxious solid wastes to acceptable standards to meet strict pollution limits.

CIGARETTES AND LUNG CANCER.

The Commission welcomed the promulgation of the Cigarette Package Labelling Regulations which are due to come into operation on 1st January, 1973. This is not the first occasion on which the State of Victoria has pioneered the introduction of important regulations which in this instance are intended to bring to the notice of smokers the fact that smoking is a health hazard. It has been noted that some other Australian States have indicated that they intend to follow the lead given by Victoria. At the present time, negotiations are taking place between representatives of various tobacco companies and officers of the Department with the view to ensuring that tobacco and cigarette packets will be properly labelled when the Regulations come into operation.

FLUORIDATION OF PUBLIC WATER SUPPLIES.

The question of fluoridation of water supplies continues to be a matter of controversy but it is apparent that opposition to this proposal stems from an organised minority. As on a number of previous occasions the Commission reiterates earlier recommendations that fluoridation is a safe and effective measure to assist in the prevention of dental caries in the community. This is in line with a recent World Health Organisation Technical Report (Series T.R.S. No. 494, 1972) which recommends that, wherever possible, water supplies which are deficient in fluoride content should be treated to bring the level up to 1 part per million.

MERCURY IN FISH.

During 1971 a survey on mercury levels in fish was commenced by the Department of Health. Following reports in March, 1972, that the Commonwealth Customs Laboratory in Melbourne had detected higher than permissible levels, that is, greater than 0.5 parts per million of mercury in shark imported from New Zealand, samples of shark were obtained from the local fish market for analysis. These showed a variation in mercury levels from below to well above permissible levels, the differences in levels appearing to be closely correlated with the size of the shark. The permissible level of 0.5 parts per million of mercury in shark was adopted in Victoria earlier this year and likewise by the Customs Department as a result of a National Health and Medical Research Council recommendation arising out of its deliberations at the 73rd Session. This level of 0.5 parts per million was arrived at after careful and detailed consideration of studies on mercury poisoning from overseas sources and it should be noted that this level gives a much lower margin of safety than is normal with poisonous substances in food (a 10 fold instead of 100 fold margin).

In April, 1972, a comprehensive and detailed study commenced into mercury levels in the school, gummy and saw sharks collected from six different ports in Victoria, Tasmania and South Australia. The survey involved the analysis of 960 specimens from 480 sharks by the laboratories of the State Health Department (including the Industrial Hygiene Division), State Department of Agriculture, Dow Chemical (Australia) Ltd., I.C.I. Australia Ltd., Department of Health, Lidcombe, New South Wales, Commonwealth Customs Department and the Department of Scientific and Industrial Research, New Zealand.

A close correlation was found between the mercury content and the length of the shark for each sex, size and species; the longer, bigger and older the shark the higher the mercury content. When these findings were related to the total 1971 shark catch for school and gummy sharks it was found that

- (1) the great bulk of the male and female school shark catch had a higher than 0.5 parts per million level of mercury with a bulked mean of 0.91 parts per million
- (2) the great bulk of the male and female gummy shark catch had a lower than 0.5 parts per million level of mercury with a bulked mean of 0.34 parts per million.

Accordingly it was recommended that the sale of school shark in Victoria be banned.

EPIDEMIOLOGICAL AND INFECTIOUS DISEASES REPORT.

TUBERCULOSIS.

Introduction.

The decline in active tuberculosis seen in recent years continued in 1971. However, the drop in new notifications was only slight from 421 to 416 but the number of chronically active tuberculosis cases declined from 94 to 42.

Year.	Active Cases.				
	New.	Rate per 100,000.	Reactivated.	Chronic.	Total.
1964	820	25.93	72	86	978
1965	790	24.50	84	66	940
1966	649	19.98	78	59	786
1967	599	18.13	80	49	728
1968	535	15.94	57	38	630
1969	497	14.50	44	38	579
1970	421	12.11	61	33	515
1971	416	11.78	23	19	458

The first full year that mass X-ray surveys were compulsory for adults 21 years and over was 1964, and since then case finding methods have been unaltered, although the number of persons X-rayed in surveys has increased.

There is a continuing problem in the incidence of pulmonary tuberculosis in persons coming from overseas. This is particularly evident in the age groups 15-29 years in which 58 per cent. of the persons notified during the period 1965-71 were born outside Australia.

Most of these younger persons, although reliably screened before migration, have almost certainly been infected with tuberculosis prior to coming to Australia. As known in the natural history of tuberculosis, but possibly accentuated by stresses of travel and settling in a new country many tend to develop clinical tuberculosis within a few years of infection. Most are very co-operative in treatment and return to full health and are able to live normal lives, but if undetected and untreated would rapidly spread infection amongst their contacts. All tuberculosis services throughout Australia are concentrating attention towards screening and follow-up of migrants on arrival, and the above figures suggest that this is not only rewarding in public health, but will be essential to continue whilst the present scale of immigration continues, and longer.

Sectional Activities.

The activities of the sections of the Branch have continued along the lines of recent years with only slight variation in work load. The Division of Mass X-ray Surveys have had a record attendance at Surveys taking 694,459 X-rays and finding 138 active cases of tuberculosis and 188 of lung cancer. The third compulsory survey throughout the State is about the halfway mark and at completion it is expected that programming for future surveys will be modified. Attendance at out-patient clinics were 67,199 excluding 6,422 at public X-ray sessions. This is about 1,000 less than 1970. The B.C.G. Division continues to receive co-operation from parents, 94 per cent. gave permission for tuberculin testing their children. Altogether the Division tested 101,433 persons.

The demand for institution treatment has declined further, and 112 more beds have been released for other purposes during the year. In all, 788 beds have now been officially released or closed since 1954 and many more are being used for other medical conditions but are available for tuberculosis, if required.

Geelong Clinic.

At Geelong a new chest clinic has been completed and was in occupation just after the end of the year. Senator the Honorable Sir Kenneth Anderson, K.B.E., Minister for Health of the Commonwealth of Australia, officially opened the clinic on 24th March, 1972.

National Tuberculosis Conference.

The Fifth National Tuberculosis Conference at Perth was attended by six representatives from Victoria, three of whom presented papers.

Notifications.

During 1971 there were 416 new cases of tuberculosis notified, a rate of 11.78 per 100,000. Of these 344 (83 per cent.) were pulmonary cases and 72 (17 per cent.) were extra-pulmonary. 71 per cent. of all cases were bacteriologically proven—71.2 per cent. of the pulmonary and 70.8 per cent. of the extra-pulmonary. There were 278 males (67 per cent.) and 138 females (33 per cent.).

Bovine type myco-bacteria were isolated from two Australian born patients—a man of 55 years with renal tuberculosis and a woman of 75 with pulmonary tuberculosis.

There were no new cases reported from whom atypical myco-bacteria were isolated.

Age Groups.

The age distribution is similar to the pattern in recent years. The figure for children under 15 years remains unaltered at 10 per cent.

Migrants.

41.8 per cent. of the year's notifications were from persons born outside Australia, i.e., 174 cases. The 1966 census figure is 21.14 per cent. of the Victorian population. 32 persons were British and 142 non-British. 38 persons (21 per cent.) were reported within one year of arrival (32 non-British). Of the 72 extra-pulmonary cases reported 37 were born outside Australia, (7 were British); and of 19 with pleural effusion, 13 were non-British migrants.

Extra-Pulmonary Tuberculosis.

There were 72 cases reported. Tuberculosis of the renal and genital organs continues to be the most common—42 cases. There were 11 cases of bone and joint tuberculosis and 2 cases of meningitis. Tuberculosis of lymph glands is still fairly common and usually occurs in children; 15 cases were reported; some of these are almost certainly due to atypical myco-bacterial infection.

Source of Notification.

Mass X-ray Surveys were responsible for 129 cases (37.5 per cent.) of the pulmonary forms. Hospitals reported 90 cases (21.6 per cent.) of the total and private medical practitioners reported 92 (22.1 per cent.). State Clinics reported 82 cases (19.7 per cent.) mainly the result of examination of contacts of new cases. There were two notifications from death certificates and three were reported from a State Institution. Three cases resulted directly from school tuberculin testing.

Many cases are not detected until they present to a hospital or their medical practitioners. The importance of medical personnel in clinical practice continuing to look for tuberculosis cannot be overstressed. Tuberculosis can often be the cause of unexplained ill-health, unsatisfactory progress of persons with other medical conditions or a complication for patients having treatment involving cytotoxic or immuno-suppressive therapy. In the elderly it can also remain quite unsuspected.

Reactivation.

There were 23 persons previously notified whose tuberculosis again became active after at least three years stability. Twenty-one were bacteriologically proven at relapse and 1 histologically. Pulmonary relapses occurred in 20 cases and extra-pulmonary in 3. More than half the cases (13) had been stable for 15 years or longer, 10 had no previous chemotherapy and 11 had chemotherapy for less than 2 years.

In addition, there were 23 cases whose lesions again became active after periods of stability from 1 to 3 years.

Case Register.

On 31st December, 1971, the Case Register for active cases had listed 2,097 cases, of whom 1,826 had pulmonary and 271 had extra-pulmonary disease. 1,166 patients were receiving chemotherapy. The names of 730 whose conditions had become inactive were removed from the register during the year.

The Case Register continues to be an important adjunct to tuberculosis control, especially aiding supervision of persons changing their places of living, and those who carry a higher risk of relapse, or risk to others if they relapse (e.g. kindergarten workers, schools teachers, etc.). Special lists of names of such people are kept to enable closer supervision.

Appreciation is again acknowledged for the co-operation of the staffs of the Bacteriological Laboratory at the Fairfield Hospital and the Repatriation Department and to many private medical practitioners who supply us with information in this important work.

"Chronic Positive" Cases.

A record is maintained of patients who are known to have had active disease with positive bacteriological examinations for twelve months or longer. Names are not removed until negative tests are obtained for a year. At 31st December, 1971, there were 19 "chronic positive" cases, including Repatriation cases, 14 less than at December, 1970. Two persons are excreting anonymous-type-mycobacteria. Seven new names were added to the list during the year.

Deaths.

Records of those having died during the year included only 34 persons who had had evidence of active tuberculosis at death or within the previous six months. The average age at death was 68.0 years.

Tuberculosis Allowances.

At 31st December, 1971, there were 91 persons being paid the Tuberculosis Allowance, compared with 113 at the end of 1970. Of these persons, 70 were men and 21 were women; 41 were receiving in-patient care and 50 were out-patients. There were 81 (89.1 per cent.) in receipt of the Allowance for less than one year, 4 between one and two years, and 6 over two years. The average duration of payment of the Allowance was 5.2 months for those receiving it for less than one year, and of the 142 cancelled during the year 79 returned to work, 25 transferred to other Social Service Benefits, 7 were for disciplinary reasons and the others for various reasons.

The Tuberculosis Allowance is a special allowance payable through the Commonwealth Social Service Department and primarily intended to encourage and enable those with active and infectious or potentially infectious tuberculosis to cease work and accept treatment.

Social Welfare.

During the year there has been an increase of patients calling weekly at the Clinic for their pensions, and a marked improvement in their health and mode of living has been noticed. Some are on Tuberculosis Allowance, others on Invalid Pension but all under the Social Worker's warrantship.

The general social work picture shows a movement away from the problems of Italians and Greek patients to those from Turkey and Yugoslavia.

The placement of homeless patients, especially those with disabilities, into suitable accommodation continues to be a problem, and not infrequently results in longer stay in expensive institutional care.

Housing.

The Housing Commission has continued to assist families referred to them and this assistance is gratefully acknowledged. During the year five families were referred and four accommodated.

Mass X-ray Surveys.

During the year 26 electorates were surveyed. A record high level of 694,459 miniature X-rays were taken—626,846 on survey, 65,157 at fixed centres and 2,456 at Pentridge. 24·8 per cent. of those X-rayed stated they were born outside Australia. There were 138 persons with active tuberculosis discovered—a rate of 0·20 per 1,000 X-rays, 188 cases of cancer in the lung, a rate of 0·27 per 1,000 X-rays, and 49 cases of sarcoid—a rate of 0·07 per 1,000.

Doctor Referrals

Doctors referred 841 persons to the Division of X-ray Surveys for X-ray examination and of those 256 showed pulmonary abnormalities and 9 were found to have active tuberculosis.

Pentridge.

Routine chest X-ray examination of inmates on entry to Pentridge continues. During the year 2,452 X-rays were taken, and 3 active cases found. In the 4½ years of operation 20 cases have been located from 11,577 persons examined, a rate of 1 active case for every 579 X-rays.

Tuberculin Testing—B.C.G. Vaccination.

Commonwealth Serum Laboratory P.P.D. tuberculin was used throughout the year, replacing Old Tuberculin which had been used routinely in past years.

Tuberculin testing has continued in schools with pupils above Grade 6, i.e., twelve years old and above. B.C.G. vaccination is offered to the negative reactors. The present programme permits visiting all areas of the State every three years and consent rates for pupils last year were 94 per cent. In all 93,933 pupils were examined over the year yielding a positive reactor rate of 2·9 per cent. 30,853 pupils had been vaccinated in earlier years and of these 85·2 per cent have positive tuberculin reactions.

Rates for School Children.

Age 12 years 17,081 tested	..	2·3 per cent. natural reactors:	1970 1·9 per cent.
Age 13 years 18,544 tested	..	2·3 per cent. natural reactors:	1970 1·9 per cent.
Age 14 years 17,362 tested	..	3·2 per cent. natural reactors:	1970 2·1 per cent.

Post B.C.G. Re-examinations.

All ages and groups—

(3/12 to 12 years after vaccination) 3,961 tested—87 per cent. +ve: 1970 82 per cent.

Contacts and others—

(3/12 after vaccination) .. 1,229 tested—93 per cent. +ve: 1970 86 per cent.

In addition "all age" surveys of primary school children were carried out in three city municipalities, Brunswick, Collingwood and St. Kilda. The consent rate was 94 per cent. and 8,357 pupils were tested. 30 per cent. of these pupils were born outside Australia and yielded a natural reactor rate of 4·65 per cent. compared with 1·0 per cent. for the Australian born. The overall natural reactor rate was 3·2 per cent.

Surveys have also been made of various other groups, including contact surveys in schools—in all 101,433 were examined and 63,687 vaccinations performed during the year.

Four National Service intakes included 3,671 personnel aged 20 and 21 years and yielded a natural reactor rate of 10·6 per cent. The Victorian trainee rate was 9·9 per cent. natural reactors, 83 per cent. had previously been B.C.G. vaccinated, and of these 80 per cent. gave positive tuberculin reactions.

Bacteriology.

Reliable bacteriological support is essential in tuberculosis detection and control. Appreciation is again expressed for the co-operation and help given by the staff of the Tuberculosis Laboratory at Fairfield Hospital.

During the year the Laboratory's work resulted in:—

- 16,045 direct smear examinations,
- 16,756 cultural examinations,
- 393 animal inoculations,
- 2,459 sensitivity tests.

Isolations of tubercle bacilli were detected from 378 patients of whom 284 were new cases, 39 were "carry over" from the end of 1970, 22 were from reactivated cases, and 9 were from persons with chronically active tuberculosis.

Primary Resistance.

There were 11 cases of primary resistance detected, 7 were from migrants. One of the Australian born had served in Korea. In the past eight years there have been 74 cases of primary resistance detected and 41 of these persons were born outside of Australia.

Bovine Type.

Three isolations were identified during the year; (a man with renal lesions, a woman with pulmonary lesions and a man with reactivated pulmonary disease).

Treatment.

Anti-tuberculosis chemotherapy used during the year has virtually been confined to the five drugs, Streptomycin, P.A.S., Isoniazid, Ethambutol and Rifampicin and enabled satisfactory combinations to be prescribed and tolerated. Bacteriological conversion can be expected and obtained in all patients so that assessment of their efficiency has now shifted to factors such as patient acceptance, drug toxicity and tolerance and the speed with which conversion can be obtained. The combinations of Streptomycin-Isoniazid-P.A.S., or Isoniazid-Ethambutol-Rifampicin are each very effective for initial treatment and the trial in conjunction with the Repatriation Department is continuing.

Despite the expected successful outcome of treatment, some patients present problems in achieving this result. Dr. Milne, the Medical Superintendent of Heatherton Sanatorium, has reviewed the case histories of patients discharged in 1971 whose stay was more than a month longer than the average. There were 68 patients. The main factors involved appeared to be associated with advanced disease and alcoholism (19), advanced disease and multiple organ infection (12), tuberculosis complicated by other diseases (13), adverse drug tolerance (7), and delayed conversion without known cause (13). A similar pattern was observed in the previous year.

Heatherton Sanatorium Laboratory.

The direct availability of laboratory services at Heatherton Sanatorium has given better control in the treatment of many patients, and pre-medication testing also prevented possible complications.

TYPHOID FEVER.

Nine cases of Typhoid Fever and 2 of Paratyphoid Fever were notified.

A 2½-year-old girl whose family migrated from Italy in the last few years became acutely infected (Phage type C1). A one-year-old brother had a similar but milder infection two weeks later. Both were treated successfully. An investigation of all household contacts disclosed the children's great grandmother to be a faecal carrier of the same Phage type organism. She is now registered as a typhoid carrier.

A 25-year-old woman was found to have an acute infection (Phage type 46). Family contacts had negative tests. Investigations led to the detection of a carrier, a 45-year-old Chinese restaurant proprietor and chef who was found to be excreting a similar Phage type organism. He was excluded from food handling and his name has been placed on the register.

Two other cases, both males of 24 years, had acquired their infections whilst overseas (Phage types A and E1). The remaining two cases were an eleven-year-old boy who was diagnosed serologically, and a 32-year-old Greek migrant whose gall bladder contents yielded a positive culture (Phage type A) following operation.

The two cases of Paratyphoid Fever occurred in 35-year-old women. One had acquired her infection whilst touring in Europe and Asia (Type A). The source of the other infection (B Phage type Taunton) was not established but the eating of oysters at a restaurant 3 weeks previously was suspected as being the possible source of infection.

DIPHTHERIA.

Two cases occurred in mid-winter. A pre-school boy, aged 5 years, who is said to have been immunised prior to coming to Australia, had moderate faucial diphtheria. Four immunised kindergarten contacts were carriers. A girl aged 19 years was found to be a nasal carrier. All were successfully treated at Fairfield Hospital.

These patients confirm that diphtheria organisms are always present in the community and emphasize the continuing necessity for immunisation against this disease.

INFECTIOUS HEPATITIS.

1,895 cases were notified of which 1,046 were from the Metropolitan area. The figure indicates a lower incidence than that of 1970 when it was 2,401. There was no marked seasonal prevalence and 11 deaths which includes those from serum hepatitis were recorded.

The cases occurred chiefly in the younger age groups and were associated particularly with primary schools and institutions. One outbreak involving 10 people was linked with the consumption of mussels.

Sixty-six cases of Serum Hepatitis (Australia Antigen Positive) including 6 who died were notified from Fairfield Hospital. A great proportion of these patients were drug abusers. Due to active measures taken there were very few cases associated with haemodialysis.

ANTHRAX.

An outbreak of 9 cases of human cutaneous Anthrax occurred in late December, 1971, and early January this year in the Echuca area and was preceded by an outbreak of Anthrax in cattle in the district.

All cases, 4 of which were confirmed bacteriologically, were investigated and treated successfully in Fairfield Hospital. Eight of the cases were associated with a knackery in Echuca and the remaining case had handled a hind-quarter of beef from a farm in the district.

Action taken by the Department of Agriculture contained the disease outbreak in the livestock and officers of the Department of Health traced, and in collaboration with municipal health inspectors destroyed all possibly contaminated products of the knackery and disinfected the premises. Due to the precautions taken the outbreak was contained and no secondary human cases occurred.

MALARIA.

Thirty-six cases of imported Malaria were notified, 3 of which were Falciparum infestations. The majority were young adults who had been in the Territory of Papua and New Guinea for varying periods of time and though they had in most cases taken prophylactic Chloroquine, all had not availed themselves of the recommended 14-day "curative" course of Chloroquine and Primaquine. Other overseas areas included India, Vietnam and Malaysia.

This again highlights the importance of travellers returning from overseas having a full curative treatment if they have been in a malarial district.

TETANUS.

Three cases of Tetanus were notified, two of which were fatal.

A 15-year-old partly immunised boy from the Portland district sustained a penetrating injury to the right ankle. Nine days later he developed symptoms and he died on the ninth day of his illness.

The other two cases were admitted to Fairfield Hospital. A 56-year-old woman from Northern Victoria developed signs of tetanus 5 days after having trodden on a nail in her garden. There was no record of her having had tetanus toxoid immunisation. She was successfully treated.

The third case was a 76-year-old unimmunised man from North Western Victoria who cut his hand with a lawn mower. He died 5 days later with mild tetanus which was exacerbated by an aortic stenosis.

The continued occurrence and high fatality rate of tetanus indicate the need for people particularly vulnerable to soil contaminated wounds, to maintain immunisation against this disease.

HYDATID DISEASE.

There were 3 cases of hydatidosis notified. The first two cases were from the western district and one from Gippsland. This figure probably grossly understates the actual incidence of the disease in Victoria.

A 51-year-old truck operator from the Shire of Minhamite who owns a number of dogs which have contact with livestock was found to have a cyst in a thigh muscle.

A 60-year-old retired sheep farmer from the Camperdown area had multiple cysts.

A 9-year-old boy from a Gippsland farm was found to have chest wall cyst at operation.

The morbidity associated with this disease and the fact that it is eminently preventable, call for continued and intensified efforts to break the animal chain of infection and promote hygiene in those at risk.

MEASLES.

From a study of cases admitted to Fairfield Hospital, it is clear that measles epidemics in Melbourne occur in 2-year cycles and run a fairly predictable course.

In 1969 between May and October, 494 cases of children with severe or complicated measles were admitted to hospital.

During 1970 an extensive measles immunisation campaign was commenced and, as a direct result of this, the number of cases admitted in 1971 was reduced to 111.

BRUCELLOSIS.

There were 40 cases notified as compared to 106 in 1970. Thirty-six cases were due to *Br. abortus* infections and 4 which occurred in people from overseas, were due to *Br. melitensis*.

The sources were as follows: 12 had drunk unpasteurised milk, 10 had been employed in the meat industry, 5 had handled infected stock, 2 had accidentally inoculated themselves with "Strain 19" and 7 were of unknown origin.

The Department of Agriculture's Brucellosis Control Campaign, which consists of "Strain 19" inoculation of heifers, began in 1970 and will continue until surveys show that the incidence of Brucellosis has been reduced to a point where eradication is feasible.

ENTEROVIRUS INFECTION.

The epidemic of enterovirus infection in the community was reflected in the number of admissions to Fairfield Hospital for enteroviral meningitis. Using this index, the 1970-71 summer incidence of the disease was not as high as in previous years. The Coxsackie B group were the principal viruses isolated.

In May the cases were fewer and the prevailing organism was Echovirus Type 11.

In mid-November, the beginnings of the 1971-72 summer epidemic became apparent. Echovirus type 11 was the predominant virus in this moderate epidemic but additionally Coxsackie Virus Types A9, B2, B4, B5 and Echovirus Types 6, 11, 17, 20 and 21 were identified.

GASTRO-ENTERITIS.

Eighty-nine cases of Salmonellosis and 33 cases of Shigella dysentery, represent a decline on the 1970 figures of 225 and 91 respectively. Bacterial enteric infection occurred chiefly in the warmer season and particularly in the young.

During winter, gastro-enteritis of unknown aetiology affecting babies and young children, became the most widespread outbreak of its type occurring in Melbourne in the last seven years. Diarrhoea and dehydration called for urgent resuscitation by intravenous infusion. Fairfield Hospital recorded the peak of the outbreak to be at the end of July with 198 admissions.

RESPIRATORY VIRUS INFECTIONS.

By the end of summer 1970-71, the virus most commonly isolated from cases of severe respiratory disease in children was Parainfluenza Virus Type 1. The severe effects of this infection were seen in small children in the form of croup, but in older children and adults the effects were milder, being "colds" or bronchitis. By April, there was a decline in the number of cases due to this infection but the admission of a few babies with bronchiolitis due to Respiratory Syncytial Virus, heralded the recurrent winter outbreak of this illness.

The winter respiratory disease epidemic pattern was due to several viruses with Respiratory Syncytial Virus and Parainfluenza Virus Types 1 and 3 predominating. A number of babies were admitted with severe bronchiolitis which was characterised by dyspnoea and wheezing and often complicated by secondary bacterial pneumonia. In addition, some cases of croup were admitted.

Influenza A2 (Hong Kong Strain) was isolated from a number of adult patients admitted to hospital with bacterial pneumonia complicating influenza. The number of such cases was, however, moderate compared to the previous two years' figures. By September this epidemic had almost subsided as had the annual Respiratory Syncytial Virus epidemic, and the summer viruses viz. Parainfluenza group were once again beginning to emerge. Type 1 had now given place to Type 3. Adenovirus and rhinovirus infections also occurred sporadically.

FOOD POISONING.

There were 13 outbreaks of food poisoning notified to the Department throughout the year. Six of these were notified through the municipalities and the remaining ones were reported directly to the Department. The size of the outbreaks varied from 2-421 and involved a total of 618 people.

The places where the food was prepared and eaten were University Colleges (4), an old people's home (1), a sports function (1), food service establishments (7). The foods involved were mainly meats but oysters and milk were incriminated in 2 of the outbreaks.

All outbreaks were probably bacterial in origin. Eight were due to *C. perfringens* (5 unconfirmed), 1 probably due to *Salmonella* infection, 1 due to *E. coli* 0111 K58 (B4) and 2 were of unknown bacterial origin.

Generally speaking, the cases were mild and did not require medical treatment. Attack rates were difficult to assess but were probably low reflecting the low pathogenicity of the organisms involved.

The investigation and control measures by the District and Municipal Health Staffs showed that continuing education in food handling for the staff of food service establishments is necessary, more stringent regulations governing temperatures of storage and display of potentially hazardous foods should be introduced, and a stricter control of food-handlers and water supplies to food premises must be imposed.

POLIOMYELITIS AND ALLIED DISEASES.

Incidence of Poliomyelitis.

Only one case of poliomyelitis was reported during 1971, an adult who had received no vaccination against the disease. This continued low incidence provides further proof of the efficacy of the vaccines used since 1956 and is also a reflection of the high vaccination status which has been achieved in the State.

Distribution of Sabin Vaccine.

A total of 829,790 doses were issued during the year, bringing a total number of 4,917,000 doses now distributed throughout Victoria.

After-care Treatment.

The Division has continued to provide help in the form of orthopaedic supervision and physiotherapy services to post-poliomyelitis patients. These services are also available to those who have suffered an attack of multiple sclerosis or acute infective polyneuritis. In these categories, new referrals continue to be received at the rate of approximately 100 cases per year.

Clinics are held in various centres throughout the Metropolitan area and in Country districts. In the case of patients being unable to attend such centres, domiciliary visits are made.

When splints are required, these are supplied and financial assistance in their purchase is given in appropriate cases. Patients in receipt of Social Service payments make no contribution to their cost.

Other Activities of the Division.

Help in the field of physiotherapy services has been continued in some of the psychiatric hospitals. Physiotherapy staff is also supplied for Ante-natal Clinics conducted by the Maternal and Child Welfare Branch and for children requiring treatment at the Allambie Reception Centre (Social Welfare Department).

IMMUNISATION MATERIAL ISSUED TO MUNICIPALITIES 1971-72.

(with figures for 1970-71 for comparison).

Material.	Number of Doses.	
	1971-72.	1970-71.
Measles Vaccine	88,662	137,320
Rubella Vaccine	35,619	96,110
Sabin Vaccine	829,790	963,090
Triple Antigen	275,495	324,289
A.D.T.	44,565	5,680
Combined Diphtheria-Tetanus Prophylactic	129,042	102,089
Purified Tetanus Toxoid (A.P.A.)	37,800	52,032
Smallpox Vaccination	25,194	23,501
Schick Test Toxin	550	881
Diphtheria Prophylactic (P.T.A.P.)	1,975	1,141

VENEREAL DISEASES.

Government Clinic.

TABLE 1.—NEW PATIENTS AT THE GOVERNMENT CLINIC.

Year.	Patients.			Gonorrhoea.			Syphilis.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1962	2,634	560	3,194	805	228	1,033	48	2	50
1963	2,396	615	3,011	645	238	883	41	3	44
1964	2,288	644	2,932	678	227	905	28	1	29
1965	2,622	788	3,410	862	215	1,077	43	3	46
1966	2,699	919	3,618	814	314	1,128	29	3	32
1967	3,124	1,244	4,368	824	381	1,205	33	4	37
1968	3,015	1,201	4,216	734	335	1,069	40	5	45
1969	3,016	1,167	4,183	796	372	1,168	70	8	78
1970	3,329	1,546	4,875	952	721	1,673	38	4	42
1971	3,558	1,639	5,197	1,014	659	1,673	34	10	44
1972 (6 mths)	2,242	1,074	3,316	492	396	888	15	1	16

From perusal of Table 1 it can be readily seen that attendances at this Clinic have steadily increased since the Division was moved to its present site in Fitzroy in 1960.

The increase in attendances over the past six months has been in the order of about thirty per cent. for males and forty per cent. for the females section, calculated against the corresponding six monthly period in 1971.

One of the main reasons for these increases is the intensification of contact tracing with all positive cases.

This procedure, which involves the early detection and treatment of all persons who have been in contact with a case of venereal disease, is now being given high priority in the management of each case.

Apart from preventing the rapid transmission of disease from person to person, contact tracing also detects many asymptomatic female carriers, who would otherwise remain undetected but active in a venereal disease transmission.

TABLE 2.—VENEREAL DISEASES NOTIFICATIONS FOR VICTORIA.

Source.	Gonorrhoea.			Syphilis.		
	Male.	Female.	Total.	Male.	Female.	Total.
Government Clinic	1,014	659	1,673	34	10	44
Others— Metropolitan and Country	331	75	406	27	28	55
Total	1,345	734	2,079	61	38	99
1970	1,300	768	2,068	59	14	73
1969	1,175	450	1,625	97	54	151
1968	1,189	424	1,613	65	19	84
1967	1,361	485	1,846	59	33	92
1966	1,265	413	1,678	47	6	53
1965	1,264	322	1,586	66	19	85
1964	1,019	283	1,362	48	11	59
1963	997	300	1,279	62	10	72
1962	965	305	1,270	58	19	77

From Table 2 it will be seen that there has been a progressive increase in the notifications of gonorrhoea in recent years which is slightly larger than the proportionate increase in the population.

TABLE 3.—SYPHILIS NOTIFICATIONS—1971.

Primary.		Secondary.		Early Latent.		Late Latent.	
M.	F.	M.	F.	M.	F.	M.	F.
0	5	15	11	22	21	1	1

Table 3 shows that the incidence of syphilis remains at a fairly low level. Contact tracing is even more essential with syphilis because of the seriousness of the disease and because of the long incubation period; it is usually more effective.

No cases of congenital syphilis were notified for the year and only one in the previous year.

TABLES 4 AND 5.

FEMALES.							
Government Clinic.				Rest of Victoria.		Total.	
Age Groups.	Attendances.	Gonorrhoea.	Syphilis.	Gonorrhoea.	Syphilis.	Gonorrhoea.	Syphilis.
0-9	..	..	..	..	..	..	..
10-14	111	20	..	..	..	21	..
15-19	735	297	2	20	2	317	4
20-24	417	202	5	30	8	232	13
25-29	160	58	..	13	8	71	8
30-34	80	25	1	5	4	30	5
35-39	50	22	..	1	..	23	..
40-44	20	13	1	2	5	15	6
45-49	31	11	..	1	..	12	..
50-54	15	7	..	2	1	9	1
55-59	10	2	..	..	..	2	..
60-64	10	2	1	..	..	2	1
65+	..	..	..	..	..	..	..
Total	1,639	659	10	75	28	734	38

MALES.

Age Groups.	Government Clinic.			Rest of Victoria.		Total.	
	Attendances.	Gonorrhoea.	Syphilis.	Gonorrhoea.	Syphilis.	Gonorrhoea.	Syphilis.
0-9	..	..	..	..	..	..	..
10-14	2	..	..	..	..	..	..
15-19	510	240	3	45	2	285	5
20-24	1,418	374	9	127	6	501	15
25-29	709	241	4	88	6	329	10
30-34	336	73	5	30	7	103	12
35-39	220	34	6	15	1	49	7
40-44	161	24	1	15	3	39	4
45-49	102	13	3	7	..	20	3
50+	107	15	3	4	2	19	5
Total ..	3,558	1,014	34	331	27	1,345	61

Tables 4 and 5 give the number of patients notified as suffering from a venereal disease in Victoria for 1971, with a breakdown for both sex and age groups.

These tables also include the numbers of new patients presenting for examination at the Clinic.

It will be seen from these tables that the majority of females presenting at the Clinic were the 15-19 age group, whereas the majority of males presenting were aged between 20 and 24 years.

In addition, there were five cases of lymphogranuloma venereum reported (3 males and 2 females), and one male case of chancroid.

OTHER ITEMS RELATING TO VENEREAL DISEASE MANAGEMENT.

A. Fairlea Prison.

Female prisoners are regularly examined at this institution. A total of two hundred and twenty-three women were examined during the year and forty-five were diagnosed as having gonorrhoea and one as latent syphilis.

B. Serology.

The laboratory section for syphilis serology is now located at Fairfield Hospital and this arrangement is proceeding satisfactorily.

C. Cultures.

Improved culture techniques introduced by the Diagnostic Laboratory of the Department have resulted in a higher percentage of positive results for gonorrhoea in females.

D. Therapy.

Various new drugs for the treatment of gonorrhoea were evaluated during the year at the Clinic, but none appeared to be more effective than those previously tested.

Vaccines to protect against gonorrhoea and syphilis are still not available and it appears it would probably take many years before they are available for use.

EXOTIC DISEASES UNIT—FAIRFIELD.

At the end of 1971 there were 4 male patients. Of these 4 there were two adults and two children. Two Ceylonese children were discharged during the year and three male patients were admitted. The position is summarised as follows:—

In-patients .. 1 male, Australian, aged 65 years
 1 male, Anglo-Indian, aged 14 years
 1 male, Anglo-Indian, aged 10 years
 1 male, Maltese, aged 46 years.

Out-patients .. All former patients of the Hospital still living in Victoria receive a regular medical examination and a supply of drugs twice a year. Currently there are 14 out-patients, most of whom are from Middle East countries.

The buildings have been maintained in a satisfactory state of repair and the Unit is capable of being readily adapted for admission of cases of any other exotic disease requiring complete isolation facilities.

MICROBIOLOGICAL DIAGNOSTIC UNIT.

Enteric Organisms.

Four minor foci of typhoid fever were encountered in Victoria. Two of the five cases involved had recently returned from abroad and infection was probably contracted overseas. Two children were infected by their migrant grandmother who had suffered from typhoid 28 years previously.

Strains from four further episodes elsewhere in Australia were phage-typed in the unit. These episodes are reminders of the potential dangers but the paucity of cases resulting illustrate the relatively high infectious dose required in the transmission of typhoid. In all, 209 cultures of *S. typhi* were phage typed, most from Tonga and the Philippines.

Eighteen cultures of *S. paratyphi* B were also typed. Isolates from sewage came from South Australia and from cases from South Australia, Western Australia and Victoria. It was suspected that oysters were the vehicle of infection in the last case but extensive investigations were not able to confirm this. Two strains of *S. paratyphi* A were received. One isolated (Fairfield Hospital) in Victoria from a patient who could have contracted the infection abroad, the other from Sydney.

Of the other *Salmonella* serotypes, 705 strains isolated in Victoria were identified in the unit. Of these 381 were from human sources and 306 from egg material. Most of the strains of human origin were *Salmonella typhimurium* (67 per cent.), *S. bovis-morbificans* (19 per cent.), *S. newport* (9 per cent.) and *S. derby* (5 per cent.). Those from eggs were *S. typhimurium* (44 per cent.), *S. oranienburg* (28 per cent.) and *S. bareilly* (25 per cent.). In all 25 different serotypes were encountered. A small outbreak of *S. bovis-morbificans* involving 5 cases occurred at a babies' home early in the year. In addition, 76 cultures from interstate were identified.

Phage typing of *Salmonella typhimurium* became part of the routine this year with all Victorian isolates received at the Microbiological Diagnostic Unit being typed. In addition, 761 strains sent from interstate were typed. Information concerning the prevalence of certain phage types in humans and animals is emerging as is evidence of the prevalence of antibiotic resistance. A great deal of work is still necessary to clarify the epidemiological problem involved. From the start of this typing in September 1970 to the end of 1971, 1,931 strains have been typed.

Of the 401 strains of *Shigella* spp. identified 281 came from Victoria, 41 from Queensland and 4 from New South Wales. *Shigella sonnei* (207) and *Shigella flexneri* 3A (49) made up the bulk of the Victorian strains. *Shigella sonnei* was prevalent at a children's institution from March to December with the organism being isolated from 109 people. All but one of these were colicine type 2. This is in contrast with another children's institution where colicine type 0 continues to be found together with a variety of other *Shigella* species.

The 68 cultures of *Shigella sonnei* sent from South Australia were mainly type 4 or 0 while the 15 strains from Western Australia, Queensland and New South Wales comprised a variety of types.

One hundred and eighty-one strains of enteropathogenic *Esch. coli* were identified. Both 0111K58 and 055K59 were encountered at a children's institution and 0111K58 at a babies' home. In November and December 46 strains of a non-motile, non-lactose fermenting enteropathogenic *Esch. coli* 0111K58 were isolated in connection with an outbreak of food poisoning at a restaurant.

Diphtheria.

A number of strains of *Corynebacterium diphtheriae* were examined from three clinical cases and four carriers found in Victoria. Those strains which could be serotyped were type McLean and the virulent strains were bacteriophage type VI.

Of 23 cultures sent from New South Wales, 14 were *C. diphtheriae*, 11 of which were serotype Johnston, two serotype 6387-Greenwood and one McLean. Six of the cultures sent turned out to be *C. belfanti*—illustrating the problems of identification of this genus.

Gonorrhoea.

The number of examinations of smears and cultures increased significantly during the year. The findings of Mr. S. Moroney, B.Med. Sc. student, during his research project have resulted in improved techniques for isolation being used in the Unit.

Water Microbiology.

Once again the number of examinations of water samples has increased significantly. A number of surveys have been carried out for municipalities and shires including parts of the Yarra River, creeks on the Mornington Peninsula and of seawaters at Frankston and Apollo Bay. *Salmonella* species were isolated from a number of insalubrious creeks and drains.

Food Microbiology.

The number of items of food examined more than doubled during the year. Surveys were carried out on cans of Vichysoise soup and of blown cans of "cola". The former had been implicated in an incident of botulism in the United States of America but only a low count of *Cl. welchii* was found in one can. The contents of the latter were sterile, as might be expected with a pH of 3.0 or less.

Equipment.

Contact lenses made of a certain brand of soft plastic were supplied by the College of Optometry. In several cases the lenses and the solutions in which they were kept yielded a growth of bacteria and moulds suggesting contamination, possibly during manufacture.

Parasitology.

The numbers of examinations carried out was markedly up on the previous year. Once more outbreaks of giardiasis were responsible for most of the requests. In one babies' home staff members were found to be symptomless excretors of cysts and they had probably contributed to the persistence of infection among patients.

General.

Fewer investigations were carried out in 1971 than in the previous year. This was notably due to the completion of the search for typhoid carriers at a mental hospital and the fact that the number of throat swabs submitted declined. This was partly off-set by the flow of cultures of *Salmonella typhimurium* for phage-typing. Antibiotic sensitivities are being carried out on these cultures to assess the possible emergence of drug-resistance particularly as envisaged in the British Swan Report. Some phage types have been consistently found to show a certain pattern of resistance, for example, u 142 is always resistant to streptomycin, tetracycline and sulphonamide. Ampicillin resistance is common in strains isolated from humans.

A survey of aboriginal children in the Gippsland area, financed by a grant from the Department of Aboriginal Affairs, for helminth and protozoal parasites of the gut has not been included in the overall figures but over a hundred specimens of faeces were examined by a variety of concentration techniques. The prevalence of *Ascaris lumbricoides* has fallen since the previous survey thirteen years ago but levels of *Trichuris trichiura* infestation are still high.

Specimens related to 23 incidents of food poisoning were investigated. Two episodes yielded *Salmonellas*, five *Clostridium welchii* and *Staphylococcus aureus* was found in three. The outbreak caused by enteropathogenic *Esch. coli* involved some 400 people and was actively pursued by officers of the Health Department. The bacteriological identity of the unusual organism was confirmed by the Central Public Health Laboratory, London, and Dr. Gyles of Guelph, Canada, has demonstrated the enteropathogenic properties of some of the strains.

In view of the isolation of *Vibrio parahaemolyticus* strains from food poisoning episodes in many parts of the world this organism has been sought specifically and routinely but without results.

Laboratory staff are often informed of food poisoning episodes that had complicated parties, banquets and other functions but which are never officially notified and no opportunity for investigation is presented.

The staff are frequently consulted by members of the public, health inspectors and food handlers and a variety of objects are submitted for an opinion or identification. These have included flies supposedly from urine, round worms, tapeworm segments, earthworms found in toilets, and maggots. The assistance of the entomologists of the Zoology Department in identifying some of these is gratefully acknowledged.

At the end of 1971 Dr. J. N. Singh, D.M.S., F.A.I.M.T., who had worked in the Unit for 12 years, resigned to take up a teaching post at the Western Australian Institute of Technology. He had contributed greatly to the work and morale of the Unit and has, inevitably, been much missed.

MICROBIOLOGICAL DIAGNOSTIC UNIT,
ANNUAL EXAMINATIONS,

A Comparison of Numbers for Calendar Years 1970 and 1971.

Examinations.	1970	1971
1. <i>Upper Respiratory Tract Infections</i> —		
(a) <i>Diphtheriae</i> —		
(i) Cultural examinations	3,153	2,743
(ii) Isolations and Identifications	61	25
(b) <i>Haemolytic Streptococci</i> —		
(i) Cultural examinations	3,153	2,743
(ii) Groupings	326	308
(iii) Antistreptolysin titre tests	464	100
(c) <i>Vincent's Organisms</i>	..	..
2. <i>Enteric Infection (Salmonella and Shigella)</i> —		
(i) Cultural examinations	7,564	3,980
(ii) Identifications	1,878	2,493
(iii) <i>Widal</i> agglutinations	1,281	1,225
3. <i>Serological Investigations</i> —		
(a) <i>Brucella</i>	1,547	1,163
(b) <i>Glandular Fever</i>	37	33
(c) <i>Leptospirosis</i>	301	247
(d) <i>Typhus Fever</i>	25	21
(e) <i>Rubella H.I.</i>	968	1,588
4. <i>General Bacteriological Examinations</i> including endogenous infections, food poisoning outbreaks, microbiological examination of food, milk, etc.—		
(i) Cultures	1,169	1,123
(ii) Drug sensitivities	1,368	2,417
5. <i>N. gonorrhoeae and related infections</i> —		
(a) <i>N. gonorrhoeae</i> —		
(i) Smears	587	754
(ii) Cultural examinations	4,513	5,276
(b) <i>Trichomonas</i> and <i>Monilia</i>	28	71
6. <i>Medical Mycology (Microscopy and Cultures)</i>	80	101
7. <i>Water examinations</i>	449	504
8. <i>Parasitological examinations</i>	46	237
Totals	28,998	27,152

HEALTH LABORATORY.

General.

During 1971 the laboratory had an increased work load, both in volume and complexity. Sample numbers increased by 117 to 2,550. In addition, special work was carried out in the trade waste area.

Two major items of equipment—atomic absorption and infra-red spectrophotometers—were acquired during the year. Atomic absorption is particularly useful in the estimation of trace amounts of heavy metals in foods and waters, while infra-red finds wide application in the characterisation and identification of many materials.

Mr. K. Newton, Chemist, gave a paper on "Techniques for Mercury" at the symposium on Trace Analysis in Environmental Control conducted by the Royal Australian Chemical Institute and was co-author with Mr. N. Greene of a paper on pesticide residues in human milk which has been accepted for publication in an American scientific journal.

A wide range of inquiries, numbering about 500, from both companies and members of the public, was handled by the Laboratory, and chemical staff appeared on several occasions as witnesses in prosecution cases.

A gift of several hundred volumes was made to the library by Mrs. G. McBrien, at the expressed wish of her husband, the late Mr. E. J. McBrien, who worked as a chemist in the laboratory for 30 years. These books have been suitably inscribed and represent a valuable addition to the reference collection.

Meat and Meat Products.

A reduction took place in the proportion of contraventions for most products, but there was a significant rise in the number of samples of fresh meat containing preservative.

A beef sausage was shown to be coloured with dyestuff.

Results are summarised in Table 1, together with comparisons for the previous two years.

TABLE 1.—MEAT SAMPLES ANALYSED IN THE HEALTH LABORATORY FOR 1971-72.

Type.	Number Examined.	Number not Complying.	Percentage not complying in—		
			1971-72.	1970-71.	1969-70.
Meat—					
Fresh	258	8	3	1	3
Chopped	248	21	8	14	13
Corned	9	0	0	0	0
Manufactured	105	3	3	1	3
Canned	6	1	17	0	100
Sausages and Sausage Meat	281	29	10	14	13
Tripe	4	0	0	20	33
Meat Pies	36	10	28	39	29

Dairy Products.

An excellent year was recorded in this category, with only two contraventions detected. Results are given in Table 2.

TABLE 2.
(1970-71 figures in brackets.)

Type.	Number examined.	Number not complying.
Milk—fresh	221 (285)	0 (5)
Skim Milk Powder	3 (2)	0 (0)
Butter	39 (25)	0 (1)
Cream—Fresh	16 (3)	0 (0)
Cream—Thickened	8 (5)	0 (0)
Cream—Sour	1 (0)	0 (0)
Cheese	31 (41)	1 (1)
Ice Cream, etc.	17 (5)	1 (0)
Yoghurt	1 (3)	0 (0)

Fruit Juices and Drinks.

A greater number of fruit juices were submitted for analysis than in previous years. Six of 26 samples were found to be deficient in vitamin C. The vitamin C content was found to be as low as 0.02 mg./fluid oz. for grapefruit and 1.4 mg./fluid oz. for orange juice, compared with the regulatory minima of 8.5 and 11.5 mg./fluid oz. respectively for these foods. Fortification of fruit juices with vitamin C is permitted without limit, and would appear necessary for products now on the market in large plastic containers.

Waters, Effluents and Trade Wastes.

In addition to the routine analysis of sewage plant effluents, trade wastes from various sources were examined for the presence of pollutants, including heavy metals, phenols, cyanide and detergent.

The laboratory carried out the analytical work in connection with the contamination of streams in the Woods Point mining area with arsenic during early 1972. The high proportion of arsenic in "tailings" from mining operations—7 per cent. was detected in one sample—illustrates the potential hazard from this source. Levels as high as 10 p.p.m. were found in stream water during this episode, but they quickly dropped following corrective measures.

Pesticides.

All residues detected have been below statutory or recommended limits.

A survey of the Ovens River Catchment—an area of intensive spray treatment for pesticides—was undertaken during the year. Samples were collected on seven dates spread over a four month period, eight locations being tested regularly and several others at various times. No organophosphorus residues were detected in any of the samples and about half contained minute traces of various organochlorine compounds, indicating that no hazard to human health from pesticides exists in water supplies of the Ovens Valley.

A summary of results is set out in Table 3.

TABLE 3.

Nature of Sample.	Number.	Analyses carried out.*	No. of samples in which pesticides were detected.
Apples	20	20 for OC.	15
Apricots (canned)	6	20 for carbaryl	2
Asparagus	1	6 for OC.	5
Beans	10	1 for OC.	0
Blood (Human)	3	10 for OC.	6
Breakfast foods	56	10 for carbaryl	4
Brussels Sprouts	10	3 for OC.	3
Cabbage	1	56 for OC.	28
Carrots	3	10 for OC.	6
Cauliflower	10	10 for OP.	0
Cherries (canned)	4	1 for OC.	0
Cherries (fresh)	1	1 for OC.	0
Liver (Human)	1	2 for "1080"	0
Parsnip	1	10 for OC.	7
Peaches (canned)	7	6 for OP.	0
Pears (canned)	5	4 for OC.	3
Soft Drinks	1	4 for OC.	1
Spring Onions	1	1 for OC.	1
Tomatoes	4	1 for OC.	1
Water	61	1 for carbaryl	0
		1 for OC.	0
		1 for pyrethrins	1
		1 for kerosene	1
		1 for OC.	0
		4 for OC.	1
		61 for OC.	25
		61 for OP.	0
Total	206	315	109

* Legend: O.C. Organochlorine compounds.

O.P. Organophosphorus compounds.

Extraneous Substances in Food.

Details of samples submitted for identification of contaminating substances, together with the findings are shown in Table 4.

As indicated last year, fewer cases of contamination by insects and rodents are being reported.

TABLE 4.

Food.	Foreign material.
Apple Slice	Mould
Beer	Mould, yeast cells
Bread	Parts of rodent carcass
Bread	Mineral Oil
Bread	Filter tip of cigarette
Bread	Mould
Cocoa	Textile Fibres
Coffee beans	Mineral Oil
Dried Figs	Live grubs, string
Lemon Drink	Yeast cells
Meat Pie	Vegetable Fibres
Meat Pie	Wood
Milk	Vegetable matter
Peas (frozen)	Carbonaceous matter
Pineapple juice	Mould
Soft Drink	Yeast cells
Soft Drink	Aluminium fragments
Soft Drink	Insect spray
Soft Drink	Mould
Soft Drink	Vegetable Oil
Tea (4 Shipments)	Mould
Tea	Mineral matter
Water Ice	Traces of Zinc and Iron

FOOD STANDARDS COMMITTEE.

At its meetings during the past year the major business under discussion by the Food Standards Committee was a number of proposed draft standards recommended by the National Health and Medical Research Council, on the advice of the Commonwealth Food Standards Committee, designed for uniform adoption throughout the various States.

During the year two sets of Amendments to the Food and Drug Standards Regulations 1966 were promulgated. Included in these Amendments is a new Regulation relating to Prohibitions and Modifying Agents. The main changes to the previous Regulation are the inclusion of specific standards of purity for all food additives which were previously covered only by general requirements

and permission to use calcium sucrose phosphates in carbohydrate foods as a preventative against tooth decay. Another of the amendments relates to Edible Fats and Oils and requires, inter alia, that products labelled as "polyunsaturated" have a prescribed minimum of polyunsaturated acids and a ratio of the polyunsaturated to saturated fatty acids. Another important change is the more stringent specifications for dripping or edible tallow.

Also during the period under review the Committee lost the services of one of its most experienced members in the person of Mr. W. A. Callister who resigned after 34 years of valuable service as an expert member on the Committee.

PROPRIETARY MEDICINES ADVISORY COMMITTEE.

A total of 559 applications for registration of preparations as proprietary medicines were received by the Department in the past twelve months. This brings the number of applications received since the inception of the scheme to 18,926; of these a total of 15,535 have been accepted for registration by the Proprietary Medicines Advisory Committee.

During the past year 36 meetings of the Committee were held to examine new applications for registration.

The Committee also met 6 times during the year to review registrations of more than 10 years standing; 623 of this type of registration have now been examined.

One supplementary register was published during the year containing a total of 398 products; 548 deletions were made from the register for the same period.

A constant watch has been kept on newspapers and magazines published in Victoria for breaches of the Health Act by advertisers of proprietary medicines, and appropriate action has been taken in detected cases of offending advertisements.

POISONS DIVISION.

Legislation.

Legislation introduced during the year comprised the following:—

Poisons (Amendment) Act 1971.

This Act amended the Poisons Act 1962 in the following ways:—

- (i) The veterinary representative on the Poisons Advisory Committee was altered from the Director of the Veterinary Research Institute of the University of Melbourne to a teacher or lecturer in veterinary science appointed after consultation by the Minister with the Council of a University in Victoria. On the death of the last Director, the Veterinary Research Institute ceased to exist as a separate Institute and the title of Director ceased to have meaning.
- (ii) In legal proceedings for an offence against the Poisons Act, a certificate from a botanist was established as having the same status as a certificate from an analyst; that is, it was established as being sufficient evidence of the identity of the thing examined, without proof of the signature of the person signing the certificate or that he is a botanist.

Previously, where evidence of identity of a plant or plant parts was required by a court, a botanist from the staff of the Government Botanist was required to appear in court and give evidence. The increased number of cases involving the identification of narcotic plants placed a heavy burden of court appearances on the Government Botanist's staff. The amendment to the Act will obviate these appearances.

Poisons (Amendment) Act 1972.

This Act further amended the section of the Poisons Act dealing with the constitution of the Poisons Advisory Committee by providing for the appointment of two additional members: a further legally qualified medical practitioner practising as a physician to be appointed from a panel of names submitted by the Victorian Branch of the Australian Medical Association; and a primary producer appointed by the Minister of Agriculture from a panel of names submitted by a body representing the interests of primary producers.

Drugs of Addiction and Restricted Substances Regulations 1971 (No. 2).

These Regulations revoked the Section of the Drugs of Addiction and Restricted Substances Regulations 1966 that required preparations of penicillin or streptomycin for bovine intramammary infusion to be coloured with a marker dye. The Schedule entries for antibiotics were amended and consolidated and the marker dye requirement was included in the Schedule Six entry. This made the relevant section of the Regulations unnecessary.

Special Poisons (Levodopa) Regulations 1972.

These Regulations revoked the Special Poisons (Levodopa) Regulations 1971 which controlled the prescribing and use of Levodopa. In April, 1971, the Commonwealth Government made Levodopa available as a pharmaceutical benefit under the National Health Act. To avoid cutting across the requirements of this latter Act, it was necessary to extensively amend the Section of the 1971 Regulations that detailed the procedure to be followed by a pharmacist dispensing a prescription for Levodopa.

The new Regulations also provided for the legal use of Levodopa for research purposes. The prescribing of Levodopa was still restricted to medical practitioners holding a warrant from the Chief Health Officer, but its possession and use by the holder of an Educational Permit was made possible.

Special Poisons (Ovulatory Stimulant) Regulations 1972.

These Regulations added the Footscray and District Hospital and the Peter MacCallum Clinic to the list of public hospitals whose Pharmacist-in-Charge is permitted to hold ovulatory stimulants on behalf of the person on the staff of the hospital who holds a warrant to possess and use ovulatory stimulants.

Monitoring of Licit Drugs

The licit movement of drugs of addiction continued to be monitored by a weekly computerised return of all transactions in these drugs by manufacturers and wholesalers.

During the year under review, "exception" reporting back to the States was promised from the Commonwealth computer. The first reports of this type were received early in 1972, providing an indication of doctors, dentists, chemists and other authorized persons who were receiving above-normal levels of drugs of addiction. It is expected that this information will provide an indicator to long term usage of drugs of addiction and possible leakages to illicit sources.

Drugs of Addiction on Ships.

Divisional officers continued to take part in the Commonwealth-State Working Party enquiring into the carriage of drugs on ships.

Visits were made to a number of ships and shore establishments and also to an oil and gas platform in Bass Strait to investigate the security of drugs following a number of incidents where life rafts were slashed and their emergency kit of narcotics removed.

Drug Addiction.

Eighty-four permits were granted by the Chief Health Officer for the treatment with drugs of addiction of 43 addict patients. In all but a few of these cases, the method of treatment was the Methadone maintenance method, whereby the drug Methadone (Physeptone), itself a drug of addiction, was administered to, or prescribed for, the patient in diminishing amounts to prevent his craving for illicit drugs, whilst efforts were made by counselling and other means to motivate him towards a stable drug-free life.

Close liaison was maintained between the medical practitioners treating addiction cases and the Departmental Medical Officer attached to the Poisons Division.

Permits for Drugs of Addiction.

The number of permits issued to medical practitioners by the Chief Health Officer to prescribe Schedule Eight amphetamine drugs, and other drugs of addiction for periods in excess of eight weeks, increased again this year. A total of 720 permits were issued compared with 650 in 1970-1971.

Of this number, permits to prescribe drugs of addiction for long-term treatment of medical conditions, other than drug addiction, increased appreciably from 176 permits for 131 patients in 1970-1971 to 388 permits for 334 patients. The larger number of applications is considered to be due to the increased awareness among medical practitioners of the need to seek a permit where they wish to treat a patient with a drug of addiction on a long-term basis and also to the continuing routine inspection of pharmacy records by officers of the Division.

Permits to prescribe Schedule Eight amphetamine drugs, on the other hand, fell from 474 in 1970-1971 to 334 this year. Only a very few of these permits were issued for new patients and it is considered that eventually the number of those who genuinely need treatment with amphetamines will stabilize.

Drug Recalls.

The continued increase in the number of drug recalls made necessary by a variety of causes, e.g., faulty labelling and packaging, contamination of contents, failure to meet required standards of potency or sterility, gave cause for concern during the period under review. Follow-up investigations carried out during the year by officers of the Commonwealth Health Department and this Division indicated that "bad housekeeping" was usually the main cause of such faults.

The joint Commonwealth-State drug recall system was shown to work efficiently during such emergencies.

Drug Security.

Following the introduction of steel drug security cupboards into pharmacies and hospitals and a simultaneous campaign with the co-operation of chemists to clear out unwanted drugs, the number of pharmacy breakings initially increased. This was considered to be due, in part, to the fact that in any one breaking, the offenders obtained far less drugs than had been the case previously.

However, during 1972, the target for drug thefts swung dramatically from pharmacies to doctors' surgeries and their motor vehicles; and in the first six months of 1972, these breakings exceeded those of chemists' shops.

Publicity concerning this change was given by professional medical organisations to their members in their journals and bulletins.

Officers of the Division together with officers of the Hospitals and Charities Commission and the Victoria Police Crime Prevention Section and Drug Bureau, continued to advise on and check the security of manufacturers and wholesalers premises, hospital and pharmacies.

Drug Control.

Officers of the Division were frequently called upon to assist police officers as professional witnesses in court proceedings involving the use of drugs. A close liaison was maintained by the Division with the Victoria Police Drug Squad and the Commonwealth Department of Customs and Excise Narcotic Bureau.

Destruction of Unwanted Poisons and Drugs.

Throughout the year, officers of the Division supervised the destruction and disposal of large quantities of unwanted poisons and drugs.

Frequent calls were received from the general public for assistance in disposing of drugs and poisons found in houses being occupied, poisons dumped in streets and similar cases where unwanted poisons constituted a public hazard.

Licensing System.

Administration of the licensing system established by the Poisons Act continued during the year. The number of licences and permits currently in force are as follows:—

Licence to Manufacture Drugs of Addiction	..	..	..	13
Licence to Sell Drugs of Addiction by Wholesale	..	..	..	19
Licence to Manufacture Poisons (Other than Drugs of Addiction)	..	..	..	196
Licence to Sell Poisons (Other than Drugs of Addiction) by Wholesale	..	..	..	305
Industrial Permits	..	..	..	1,301
General Dealers Licences	..	..	..	276
Poisons Licences	..	..	..	4,264
Hospital Authorities	..	..	..	297
Educational, Advisory or Research Permits	..	..	..	328

POISONS INFORMATION CENTRE.

The number of inquiries received during office hours rose to a total of 4,678 for the year. This is 574 (or almost 14 per cent.) more than the record established in 1970. It is remarkable that the 4,678 calls came at an average of 18.71 calls per day; that is to say, the whole of 1971, on the average, was busier than the busiest single month on record, viz. October 1970 when the average number of calls per day reached 18.4.

Once again a new record for the busiest month was set in autumn, the average in March being 20.4 calls per day, and once again this was broken in spring, the average being 21.24 calls per day in October. November then became the second busiest month on record, with an average of 20.71 calls per day.

					Jan.- June	July- Dec.	Total for Year
1. Salicylates, "Baby" and "Child"					7	4	11
Salicylates, "Adult"					22	44	66
Barbiturates and other "sleeping" medications					46	46	92
Laxatives					24	24	48
Cough Medicines					49	79	128
Other Internal and Parenteral medications ..					462	597	1,059
<i>Sub-Totals</i>					610	794	1,404
2. Camphorated oil					6	5	11
Mercurochrome					4	9	13
Potassium Permanganate					6	..	6
Other External and Topical medications ..					169	200	369
Hair Preparations					21	24	45
Nail Preparations					20	22	42
Perfumes					30	49	79
Other Cosmetics					50	47	97
<i>Sub-Totals</i>					306	356	662
3. Bleaches					43	26	69
Furniture Polish					37	39	76
Other disinfectants. Clean and polish agents, deodorants					347	417	764
<i>Sub-Totals</i>					427	482	909
4. Kerosene					10	24	34
Turpentine					33	37	70
Other solvents and petroleum distillates ..					35	55	90
<i>Sub-Totals</i>					78	116	194
5. Rodenticides					32	17	49
Fly Spray					28	15	43
Naphthalene					20	21	41
Other insecticides and related materials ..					101	85	186
Weed Killers					25	20	45
Other pesticides					40	69	109
<i>Sub-Totals</i>					246	227	473
6. Plants					107	102	209
7. Bites and Stings and their causes					122	71	193

(continued)

					Jan.- June	July- Dec.	Total for Year
8. Adhesives	..	..	..	..	15	26	41
Arts and Crafts products	..	..	..	..	11	24	35
Automotive products	..	..	..	..	3	15	18
Candles	..	..	..	..	..	2	2
Chalks	..	..	..	..	1	3	4
Decorations	..	..	..	..	1	..	1
Dyes	..	..	..	..	4	9	13
Fertilizers	..	..	..	..	12	8	20
Fluxes	..	..	..	..	2	2	4
Inks	..	..	..	..	4	10	14
Matches	..	..	..	..	5	11	16
Novelty Items	..	..	..	..	5	3	8
Paints and Allied Substances	..	..	..	..	37	26	63
Pet Care	..	..	..	..	2	4	6
Photographic products	..	..	..	..	..	2	2
Pigments	..	..	..	..	2	2	4
Possible causes of symptoms	..	..	..	..	6	5	11
Rust Control	..	..	..	..	1	..	1
Other Miscellaneous topics	..	..	..	..	172	199	371
<i>Sub-Totals</i>	..	..	..	..	283	351	634
<i>Sub-Totals</i>	..	..	..	..	2,179	2,499	
<i>Grand Total</i>	..	..	..	..	..	..	4,678

COMMUNITY WELFARE SERVICES.

During the year some stimulating changes have taken place in the community welfare field. Not only have the subsidized services continued to increase and expand at the same steady rate as witnessed during the past years, but new life has been pumped into the schemes by the extra finance available since the State Government agreed to become a participating State under the *States Grants (Home Care) Act 1969*.

Prior to drawing up new conditions of subsidy it was necessary to spend a considerable amount of time collecting information from all municipalities throughout the State, and when this was in hand to carefully formulate subsidy conditions acceptable to the Commonwealth, and which would ensure that the aged received the maximum amount of benefit from the extra financial assistance to be made available. In February of this year these conditions were finalised and copies were forwarded to every Municipal Council throughout the State, with special attention directed to the Municipal Councils recently granted subsidies towards the establishment of elderly citizens clubrooms not completed as at 16th September, 1971, the date Victoria became a participating State. Special attention was directed to the additional finance which could be applied for.

Home Help Service.

The Commonwealth financial assistance has enabled the ceiling wages for home helps to be raised to a more realistic level. For many years municipalities have found it necessary to pay home helps a wage considerably higher than the wage ceiling for subsidy purposes and this has meant that the Councils had to meet this additional cost. As a result many councils have been reluctant to extend the service to the aged as it is this group who contribute the least. In advising municipalities of the additional finance available, the councils have been asked to continue providing the emergency assistance to young families, whilst at the same time extending the service to meet the needs of more aged persons.

Although the Home Help Service is now fairly well known, there are still many who are either unaware of its existence or unfamiliar with the aims of the service and the conditions under which it is provided. It is important therefore to again briefly draw attention to these.

The service is a health service aimed at assisting the aged to live independent lives in their own homes as long as possible, and in keeping the household of the young family on its normal routine when the mother, through illness or confinement, is prevented from adequately attending to the family's needs.

An approved Home Help Service must provide help

- (a) to the aged and infirm whose requirements are not so much medical as supervision and help,
- (b) to expectant and nursing mothers or to families temporarily incapacitated from attending to household duties owing to illness, and
- (c) to other necessitous cases requiring help in the home.

It is necessary for all applications for home help to be supported by a medical certificate. Further medical reports are required by the organizer from time to time when the assistance is given beyond the emergency period.

In areas with adequate staffing the service is available to the aged and infirm on an hourly basis for as long as a medical need for the service exists. In other areas priority requires to be established. The service is also available to the young and chronically ill for an emergency period of up to three weeks other than in cases where there are exceptional circumstances.

Householders are required to contribute towards the cost of the service an amount assessed according to their ability to pay.

Details regarding the subsidized services are as follows:—

Total number of Councils granted subsidies	..	..	..	178
Number of services operating	..	..	..	157
Total number of Councils granted subsidies in respect of transport costs	..	..	..	121
Total cost to the Government for the Home Help Service for the 1971-72 financial year	..	..	..	\$835,000
Total number of householders assisted during the 12 months period 1st January to 31st December, 1971	..	..	..	20,684
These were as follows:—				
Mothers with families	..	..	..	10,251
Elderly	..	..	..	7,934
Others	..	..	..	2,499
Applications for which no assistance was available	..	..	..	282
Home Helps engaged during the above period	..	..	..	1,989
Full time	..	..	..	227
Part time	..	..	..	713
Hourly	..	..	..	1,049

Elderly Citizens Clubs.

In recent years the ceiling limit on the capital subsidy has placed a heavy burden on councils and it has become impossible to establish clubrooms designed to provide the minimum accommodation requirements necessary if the rooms are to be functional and this has resulted in a heavy load being imposed on the municipality. The financial assistance available from the Commonwealth has changed this as there is now no ceiling on the subsidy available, the actual amount being dependent on the total cost of the project, the amount of local contribution, the direct contribution by the municipal councils and State Government subsidy still available.

The maintenance subsidy for Elderly Citizens Clubs remains unchanged and many of the clubs in the metropolitan area are forced to call rather heavily upon the old people to meet every day costs of conducting the club. This results in many of the poorer old people staying away as they are too proud to admit that they cannot contribute to all the activities, or support the special efforts many clubs find it necessary to conduct at every gathering. The types of activities and services provided at the Elderly Citizens Clubs include hot meals at the club, meals-on-wheels, chiropody, visiting service, libraries, handicrafts, carpet bowls, cards, discussion groups, entertainment groups, outings and trugo. A few of the meals-on-wheels services have moved away from the clubs in the past year, as it has been found that with the Commonwealth Delivered Meals subsidy either no additional assistance is required, or the full benefit of the Commonwealth assistance is not gained when the Council includes the service as a cost of the club.

Details of the Clubs are as follows:—

Elderly Citizens Clubs.

New clubs granted capital subsidies	..	..	..	21
Total number of clubs now subsidized	..	..	..	213
Number of municipalities conducting clubs	..	..	..	137
Clubrooms opened during the year	..	..	..	14
Membership	..	..	..	30,858

Hot Meals Services.

Number of clubs providing hot meals	..	..	..	111
Average number of meals provided weekly at club	..	..	..	6,676
Average number of meals provided weekly through meals-on-wheels	..	..	..	14,783
Clubs serving meals at clubrooms	..	..	..	52
Number of municipalities including meals-on-wheels as a service through their Elderly Citizens Clubs	..	..	..	80

Handicraft Classes.

Number of clubs conducting handicraft classes	..	..	..	35
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Chiropody.

Number of clubs conducting service	..	..	..	83
Average number of persons treated monthly	..	..	..	2,176

Details of the subsidies granted are as follows:—

Total number of Councils now granted subsidies—137 for 213 clubs.				
Capital and maintenance	..	..	..	169
Capital only	..	..	..	14
Maintenance only	..	..	..	30
Government expenditure during the 12 months period	..	..	..	\$269,000
Capital expenditure—				
Commonwealth	..	..	..	\$11,180
State	..	..	..	\$43,550
Maintenance expenditure—State	..	..	..	\$214,300
Balance of capital commitments as at 1st July, 1972—				
Commonwealth	..	..	..	\$78,650
State	..	..	..	\$172,990

Welfare Officers.

During recent years many Municipal Councils have realized that in order to adequately serve the people of the district the service of a locally based Welfare Officer is essential. However, until 16th September, 1971, when Victoria became a participating State under the *States Grants (Home Care) Act 1969*, the only financial assistance towards the appointment of such officers was in respect of the proportion of time spent on home help organization and on the organization of services connected with an Elderly Citizens Club or Clubs, and thus few had appointed Welfare Officers.

In February of this year all municipalities were advised that under the *States Grants (Home Care) Act 1969*, the Department of Health was able to offer to municipalities the financial assistance made available by the Commonwealth for Welfare Officers appointed to carry out an approved welfare service by or in association with a senior citizens club, when such officers devoted fifty per cent. of his/her time in carrying out approved welfare services for the aged. The subsidy to be proportionate to the time spent on such services but not exceeding one half of the salary of the Welfare Officer.

Councils were advised that it was required that Welfare Officers have suitable qualifications and experience to carry out the duties of the position and in this regard trained nursing or social work training is considered suitable. The main function of the Welfare Officer is to ensure the development, co-ordination and continuing provision of the most appropriate welfare services to meet the needs of the aged in the area.

INDUSTRIAL HYGIENE DIVISION.

Cases of Occupational Disease.

Persons were medically reviewed and assessed for diseases of occupation and diagnoses were grouped as follows:—

A. <i>Pneumoconiosis</i>	..	..	..	..	..	8
Silicosis	..	..	..	..	..	3
Asbestosis	..	..	..	..	..	2
Asbestosis probable	..	..	..	..	..	3
B. <i>Other Occupational Diseases</i>	..	..	..	..	..	16
Occupational asthma	..	..	..	..	..	10
Organophosphorus poisoning	..	..	..	..	..	2
Lead poisoning	..	..	..	..	..	3
Excessive lead absorption	..	..	..	..	..	1
C. <i>Non-Occupational Disease</i>	..	..	..	..	..	19
Fitness for work in compressed air	..	..	..	..	..	1
Neumoconiosis	..	..	..	..	..	9
Lead poisoning	..	..	..	..	..	3
Pesticide poisoning	..	..	..	..	..	3
Industrial dermatitis	..	..	..	..	..	1
Cadmium poisoning	..	..	..	..	..	1
Mercury poisoning	..	..	..	..	..	1

It is of interest that of the 10 cases of occupational asthma referred to, 4 arose from one factory smelting aluminium and 3 arose from a factory extracting morphine from poppy straw.

In both factories the emergence of these cases has revealed a hitherto unsuspected hazard of considerable dimensions. In neither situation has it been possible as yet to specify the sensitizing agent.

Lead.

During the year 3,333 reports were received under the Lead Workers (Medical Examination) Regulations. Twelve men were certified as "suffering from lead poisoning" by the examining medical officer.

136 men attended the Division for tests to evaluate their lead exposure. Of these, 63 men showed evidence of excessive lead absorption or poisoning.

Stippled cell counts	..	..	..	..	..	811
Urinary lead determinations	..	..	..	..	..	174
Urinary coproporphyrin determinations	..	..	..	..	..	526
Blood lead determinations	..	..	..	..	..	11
Haemoglobin determinations	..	..	..	..	..	67
Lead-in-air determinations	..	..	..	..	..	11
Lead-in-paint determinations	..	..	..	..	..	4
Lead-in-ceramic glazes	..	..	..	..	..	13
Lead-in-wine glazes	..	..	..	..	..	1
Lead-in-water glazes	..	..	..	..	..	2
Lead-in-toys	..	..	..	..	..	2

Asbestos.

Eight asbestos-in-air counts were taken from 3 factories handling asbestos. Of these, 2 samples from 2 factories were found to be in excess of the recommended level and the companies involved were asked to rectify this.

Dust.

Twenty-four Gravimetric dust samples were taken.

Eight free silica determinations were made.

Scientific Activities.

The staff has maintained the waterfront advisory service with respect to occupational health. Some 20 inspections of ships were made. Gas-free certificates of previously fumigated ships were issued on two occasions.

By favour of the Director of the School of Public Health and Tropical Medicine, University of Sydney, the services of Mr. A. Findlay, Scientific Officer of the Occupational Health Section of the School, were made available to the Division for one week in February.

Mr. Findlay introduced a new method to the Division for the determination of solvent vapours in air by gas chromatography. This resulted in the development of a technique for determining benzene in a complex mixture such as petrol vapour in air in concentrations as low as 2-3 parts per million.

The Division is grateful for the help rendered by Mr. Findlay during his visit.

Members of the staff attended and contributed to a number of conferences and meetings on various aspects of occupational health.

Microwave Ovens.

Special attention has been focused on the potential hazard associated with microwave ovens, now being used extensively in the community.

The Division has procured a microwave monitor for the purpose of measuring the leakage of microwave radiation from such ovens. A survey of microwave oven installations in Victoria has recently been commenced.

Noise.

Noise level assessments were undertaken in relation to noise-induced deafness in some 40 factories and appropriate recommendations made. Fifty audiometric examinations were performed during the year.

General Chemicals.

Sixty-nine atmospheric determinations for solvent vapours were made on factory air. The solvents measured included dimethylformamide, methyl ethyl ketane, perchloroethylene, styrene monomer tetrahydrofuran, toluene and trichloroethylene.

Fifty-one atmospheric determinations were made for contaminants other than solvents and the contaminants included ammonia, carbon monoxide, chlorine dioxide, chromic acid, hydrochloric acid, methylene diphenyl diisocyanate, nitrous fumes, oil mist, ozone, toluene diisocyanate and welding fumes.

Recommendations were made to 8 factories to reduce the excessive atmospheric concentration of the contaminants in the working environment by means of local exhaust ventilation.

The investigation of the use of dimethylformamide in the plastic industry revealed that two factories needed to improve the existing exhaust ventilation.

Pesticides.

During the year the work in the field of pesticides has increased considerably. The administration of the Household Insecticide Regulations was transferred to the Industrial Hygiene Division. The Household Insecticides (Amendment) Regulations 1972 were promulgated in February. On 16th May, 1972 the Commission recommended the removal of DDT, Lindane and Methoxychlor from Part 1 of the Schedule and the addition of the synthetic pyrethroids to the Schedule.

The Pest Control Operators Regulations 1972 which include the registration of pest control operators and the licensing of users of pesticides were gazetted in March and will come into operation on July 1st, 1972.

Organo-phosphorus Compounds.

The estimation of blood cholinesterase levels to determine whether adverse effects were occurring on users of organo-phosphorus compounds were made in 133 people. This involved 219 analytical determinations. Six cases of phosdrin poisoning were detected, four in strawberry growers and two in market gardeners.

Methyl Bromide.

Twelve blood bromide determinations were carried out on plant quarantine inspectors with slight exposure to methyl bromide. No raised bromide levels were detected in this group.

Arsenic.

Six people were tested for suspected arsenic poisoning involving 14 determinations of urinary arsenic. No cases of arsenic poisoning were detected.

Mercury.

The Division took part in a collaborative study on the incidence of mercury in edible shark. This has so far involved 139 determinations of mercury in shark. In addition to the main series of tests on sharks, 16 tests were done on barracoutta and 25 on three sharks to study the distribution of mercury along the shark.

Forty-one people were tested for mercury absorption but only one could be classed as possible mercury poisoning. This was a technician working in a hospital laboratory repairing sphygmomanometers. After a thorough clean up including spraying of all surfaces with lime sulphur the mercury in air concentration was reduced to well below the threshold limit.

Radiation.

The numbers of licences issued to various sections of the community with respect to the possession and use of irradiating apparatus and radio-active substances under the Irradiating Apparatus and Radio-Active Substances Regulations for the year are as follows:—

Veterinary Surgeons	102
Medical	210
Dental	330
Industrial	190
Educational and Research	70
Government Bodies	60
Chiropractors	86
Hospitals	106
Clinical Groups	49
Total	1,203

The use of radio-active substances in medicine, research and industry continues to gradually increase.

The Commonwealth X-ray and Radium Laboratories now regularly provide the Division with film badge reports from some 235 installations where people are exposed to ionizing radiation.

The film badge reports indicate that the general level of radiation dose received by these people is well below permissible levels.

One incident involving a notifiable dose of radiation in the industrial radiography field was investigated. The incident involved remote control cable operated equipment and arose from a fracture of the radio-active source assembly. Reports from other States indicated a high percentage of failures associated with the assembly of this particular equipment. Restrictions were imposed limiting the life of the assemblies or the allowable number of reloads until such time as a more satisfactory design is proven in the field.

Amendments to the Irradiating Apparatus and Radio-Active Substances Regulations were introduced, allowing the Commission of Public Health to exercise greater control over the radiation field. In certain specified circumstances, the Commission may refuse to issue or may cancel a licence or may specify conditions under which licences may be issued or allowed to remain in force. The amendments also provide for a licence fee for all licences issued under these Regulations.

Amendments to the Irradiating Apparatus and Radio-Active Substances Regulations 1959 were introduced. These amendments are designed to specify certain requirements in more detail and should allow the Commission to exercise more control over the radiation field in general.

ENGINEERING DIVISION.

Sewerage.

Six new sewerage systems at Cobram, Ocean Grove, Port Fairy, Sea Lake, Torquay and Wycheproof were completed or brought into partial operation during the year. The lagoon system of treatment was adopted for the inland towns and ocean discharge used for the coastal towns.

Construction of new sewerage systems at Apollo Bay, Beaufort and Wonthaggi commenced.

New Sewerage Authorities were constituted for the towns of Cowes, Cranbourne, Serviceton, Sunbury and Tongala, and preliminary reports submitted for new systems at Creswick, Indented Head, Portarlington, Inverloch, Kooweerup and Lara. There are now 112 Sewerage Authorities constituted in Victoria under the Sewerage Districts Act and 86 of these are in operation.

Ninety inspections of sewage treatment works were made during the year and samples taken for analysis at the Health Laboratories. The Authorities were advised on the test results and comment was made on the operation and effectiveness of treatment at these plants.

Plans of ten proposed new schemes which include the towns of Pakenham East, Merbein, Numurkah and Beaufort or extensions to existing treatment works at Kyneton, Ballarat and Frankston were examined.

There were no applications for approval to establish nightsoil depots and only one for a pan-dumping station at the Terang Sewerage Authority Treatment Works. This again indicates the trend towards the adoption of full sewage treatment.

Septic Tank Installations.

Plans for 182 new installations and 30 alterations to existing systems were examined.

Mass septic tank schemes were proposed at Eskdale, Mitta Mitta, Briagalong, Darnum, Rokeby and Nilma.

A total of 217 septic tank systems were inspected.

Offensive Trades and Garbage Depots.

Plans of four new abattoirs and extensions to 23 existing abattoirs were examined and approved.

In addition, existing garbage depots at Colac, Geelong, Heytesbury, Nunawading, Port Fairy, Springvale and Wesburn and sites proposed for new ones at Brunswick, Collingwood, Dandenong, Newport, Oakleigh and Wantirna were inspected. Toxic liquid industrial wastes are only permitted to be deposited in a few garbage depots which have a pit adequately lined with clay so that ground water contamination would not occur.

Stream Pollution and Drainage.

Seventy-seven inspections in connection with drainage complaints, stream pollution and trade waste discharges were made during the year. Thirty approvals for trade waste treatment and disposal to streams were issued after consultation with the other authorities concerned with pollution control.

Water Supply.

The water supply systems of the towns of Bacchus Marsh, Benalla, Cobram, Cockatoo, Emerald, Euroa, Geelong, Gembrook, Hurstbridge, Seymour, Skipton, Timbertop, Violet Town, Wangaratta, Mildura and Yarrawonga were inspected to examine treatment methods, assess quality, or survey catchments. Chlorination of supplies was recommended in the cases of Cockatoo, Euroa, Nyah West and Rutherglen.

Swimming Pools.

Seventy-four inspections of public swimming pools were made. Thirty-six samples of water were taken for bacteriological examination from pools temporarily exempt from certain provisions of the Swimming Pools (Water Purification) Regulations.

Lectures on water purification and sterilization were given by officers of the Division at the annual instruction course for Swimming Pool Operators conducted at Springvale by the Swimming Pool Superintendents' Association.

Water Pollution.

The Division, in collaboration with other authorities, has been involved in investigations relating to pollution of streams and water courses from unauthorized trade-waste discharges and accidental spillages, particularly in the Metropolitan area.

Engineering Staff have worked in close liaison with the Mines Department in the control of ground-water pollution. The disposal of toxic liquid and soluble industrial wastes, without contamination of ground-water resources, has received very close attention. Positive action has been and is continuing to be taken to introduce disposal methods and to require pre-treatment of waste-water to safeguard underground water supplies for future use.

A major source of pollution of surface waters is the discharge to natural streams and drains of sillage from unsewered housing development and improperly treated septic tank effluent.

The installation of septic tanks within the Metropolitan area is coming under closer review by Municipal Councils. In some areas the Councils are requiring the installation of all wastes systems, with sand filters, to obviate the problem of disposal of sillage wastes into the storm water drainage systems.

Regional sewage treatment plants are proposed for installation by the Melbourne and Metropolitan Board of Works in several of the eastern suburbs as an interim measure to reduce the present level of pollution and to try to cope with rapidly expanding housing development. These plants will be phased out when trunk sewers can be provided to connect with the South-Eastern Sewerage System now under construction. Tertiary treatment by means of upward flow sand filters, with final chlorination, is being adopted as a safeguard to public health in these temporary systems.

Engineering personnel have also been participating on many committees to discuss and advise on policy and methods of control of pollution of the environment from the disposal of solid and liquid wastes, in both the short and long-term context.

Public Buildings.

Approval of plans and specifications for public buildings totalled 1,041 as shown in the following table:—

Class of Building.	Sketch plans for approval in principle.	Working drawings for approval.	Electrical installations.	Mechanical ventilation installations.	Totals.
Institutions	..	..	..	..	..
Public Buildings (under Public Building Regns.) ..	18	599	371	38	1,026
Tertiary Education Buildings	..	14	24	21	59
Schools	7	138	145	15	305
Pre-schools and I.W. Centres	40	99	75	9	223
Amusement structures/tents	5	17	8	..	30
Child Minding Centre	2	23	46	4	75
Mentally Retarded Centres	10	14	7	3	34
Elderly Citizens Clubs	18	24	35	..	77
Exhibitions/seating plans	2	11	..	..	13
Totals	102	939	711	90	1,842

Inspections of public building totalling 6,423 were made during the year including 44 inspections at night during public occupation of the buildings.

Fifty-two new Certificates of Safety for Amusement Park Structures were issued and 271 were either renewed or transferred.

AIR POLLUTION CONTROL.

Air pollution monitoring encompassing dust fall, smoke density and sulphur dioxide concentration has been continued. The number of sampling stations presently in operation are—

Deposit Gauge Stations (measuring dust fall on a bi-monthly basis)

Melbourne Metropolitan Area	34
Geelong Area	6
Gippsland	18

Smoke Density and Sulphur Dioxide Monitors (measuring smoke density and sulphur dioxide concentrations on a 24 hour basis)

Melbourne Metropolitan Area	8
Geelong Area	1
Gippsland	1

With the exception of the Morwell Central Gauge the air pollution monitor results for the La Trobe Valley appeared to reflect the very welcome attention paid to upgrading the control equipment and operations at Power Stations in the area towards minimising dust emissions. Figures showing the increased air pollution associated with inversion conditions in the Melbourne Metropolitan area during late April/early May of 1972 were released on 12th May, 1972, and an analysis of the situation was presented to the Commission. Inversion conditions occur more frequently during Autumn, and are characterised by calm weather, and by a tendency for the air mass over an area to retain pollutants which are released into it, rather than to allow their being dispersed upwards. It is noteworthy that the record for late April/early May in the observations book of the Bureau of Meteorology relating to reduction in visibility due to particulate haze, correlated well with data for that period from the newly acquired Integrating Nephelometer installed in the central city area. Initial measurements of lead and asbestos in city and urban air were concluded during the period under review.

Three hundred and sixty-five inspections were carried out in response to complaints received from the general public. One hundred and seventy-four site inspections were made prior to the installation of new plant and newly installed plant and equipment were inspected on 115 occasions. Stack sampling, and other field work connected with measurement of air pollution involved 283 visits. Forty-eight inspections and visits were made in connection with the gathering of evidence, court attendance and serving of legal requirements directing companies to install control equipment. The serving of 23 legal requirements were made during the year.

The control programme operating within the Department centres around the air pollution engineering review of plans and specifications of new plant and equipment prior to recommendation for approval by the Commission pursuant to the Clean Air Regulations 1965. Details of the units approved during the year are—

Surface Coating Units (92)	..	..	Pretreatment Units	..	..	3
			Spray Booths	..	..	67
			Automatic Electrostatic Units	..	..	2
			Flowcoat Units	..	..	2
			Stoving Ovens	..	..	14
			Combination/Booth-Drying Units	..	..	4
Incinerators (15)	..	..	General, Industrial	..	..	9
			Woodwaste	..	..	6
General Combustion Units (179)						
Boiler Plants, Oil Heaters, Industrial						
Space Heaters, Bakers Ovens	..	..	Heavy Fuel Oil (Middle East)	..	..	22
			High Pour Point Oil (Bass Strait)	..	..	7
			Industrial Diesel Fuel	..	..	98
			Automotive Distillate	..	..	25
			Natural Gas	..	..	25
			Solid Fuel	..	..	2
Internal Combustion Units (4)	..	..	Standby I.C. Electric Alternator Sets	..	..	4
Odour and Dust Control (76)	..	..	Direct Fired Afterburners	..	..	25
			Wet Scrubbers	..	..	17
			Dust Collectors	..	..	32
			Carbon Absorption Units	..	..	1
			Odourcounteraction System	..	..	1
Metallurgical Works (12)	..	..	Galvanizing Plant	..	..	1
			Cupola	..	..	2
			Furnaces	..	..	9
Ceramic Works (3)	..	..	Gas Fired Kilns	..	..	3
Organic Chemical and Petroleum						
Works (10)	..	..	Epichlorhydran Plant	..	..	1
			Olefin Polymerization Plant	..	..	1
			Bitumen Emulsion Cutback Plant	..	..	1
			Polystyrene Plant	..	..	1
			Antioxidant Plant	..	..	1
			Storage Tank Equipment	..	..	3
			Flare Stack	..	..	1
			High Density Polythene Plant	..	..	1
Inorganic Chemical Works (2)	..	..	Polyphosphate Spray Drier and Control	..	..	1
			System	..	..	1
			Nitrogen Oxides Absorption Plant	..	..	1
Food Industry (2)	..	..	Meat Smoke House	..	..	1
			Spray Drier	..	..	1
Textile Industry (3)	..	..	Stentering Machine	..	..	3
Utilities (3)	..	..	S.E.C. Electrostatic Precipitators	..	..	1
			Metropolitan Power Stations	..	..	1
			(Conversion to low sulphur fuel)	..	..	2
Miscellaneous (45)	..	..	Unclassified Scavenger Exhausts	..	..	41
			Glass Furnace (Natural Gas)	..	..	1
			Plastic Moulding Oven (Natural Gas)	..	..	1
			Paper Machine	..	..	1
			Continuous Bleach Plant	..	..	1

Four hundred and twenty-eight plants were approved during the year bringing the total number of plants approved since the introduction of the Clean Air Regulations in 1961 to 1,531.

Liaison with officers of other air pollution control organisations in the Australian States and New Zealand was maintained through the Ninth Technical Officers Conference on Clean Air held in Adelaide in November 1971 and by work on the reference Sub-Committee on air pollution control set up under the Commonwealth National Health and Medical Research Council. Officers also attended Seminars on Automotive Emission Control, on the use of Scanning Electron Microscopy in relation to the examination of particulate haze, on stack testing techniques, and on the use of natural gas. A number of talks were given by officers to interested Community and Industry groups. A highlight of the year was the International Clean Air Conference held in Melbourne 15-18 May, 1972 which proved to be a useful forum and was widely reported in the press at the time.

Complaints relating to acidic smut emission virtually ceased during 1971 following the availability of low sulphur fuels and the promulgation of the Clean Air (Amendment) Regulations 1971 prescribing authorised fuels of low sulphur content. Of considerable help in this context has been greater acceptance of the need for proper insulation of chimney stacks, which helps avoid the formation of acidic smuts. The year also saw the end of the large cloud of orange dust which had become a land mark to commuters from the eastern suburbs of Melbourne. This followed successful commissioning of a large baghouse to control these emissions from a Steel foundry.

The Commonwealth Scientific and Industrial Research Organisation is continuing efforts to develop a satisfactory low cost method of incinerating sawmill wastes as an alternative to burning in open pits and in inefficient low temperature structures fabricated in light gauge steel.

Hot dip wet galvanising also continues to be a problem and two firms have elected to use other forms of galvanising rather than install a baghouse with the necessary characteristics.

Towards the end of 1971 the then Senior Scientific Officer (Air Pollution Control) Mr. P. LeRoy, now Air Quality Control Officer with the Environment Protection Authority, addressed a meeting of the Metal Trades Industry Association held especially in connection with control of emissions from cold blast cupolas. This is a problem of long standing and one which rationalisation of the industry may be required to solve, as capital costs associated with adequate control are set out of the reach of many of the proprietors of small establishments. A working party has been set up by the Industry Association.

Operators of meat rendering plants in the State have now generally accepted the need for efficient afterburning for the noxious gases given off, especially when this is accompanied by the condensation of the associated steam, with generation of hot water and consequent large economies in operation.

Two successful prosecutions were undertaken during the year in respect of breaches of the Clean Air Act or Regulations.

It was reported towards the end of June that a firm was to shut down its phosphorus furnace at Yarraville rather than install the necessary control equipment, thus reflecting similar action taken by the parent company in the United Kingdom following commissioning of the Company's large Newfoundland works after some initial difficulties. As in the United Kingdom, Australia will now be wholly dependent on imports for phosphorus.

GENERAL ITEMS.

Health Education.

The year 1971 saw a development and extension of the activities of the Health Education Centre.

Most of its activities were concerned with drug education, but in addition, the staff of the Centre were able to meet requests for information and talks on a variety of public health subjects on such subjects as nutrition, infectious disease control, venereal disease and environmental pollution. Three hundred and twenty-seven separate organisations were addressed during the year as follows—

<i>Organisation</i>					<i>Number</i>
<i>Adults—</i>	Parents Groups	..	..	..	45
	Social Clubs	..	..	..	103
	Service Clubs	..	..	..	36
	School Staff	..	..	..	11
	Other	..	..	..	39
<i>Youth—</i>	Schools	..	..	..	61
	Other	..	..	..	32
Total					327

It is estimated that 11,500 persons were addressed during the year.

A medical officer has been employed on a sessional basis as co-ordinator of schools programmes and in planning these has aimed at securing the involvement of students, staff and parents in the programmes.

Training sessions were arranged for community service groups including Rotary, Lions and Apex. Further training sessions have been planned for 1972.

The Geelong Drug Information Service were also assisted during the year.

In May 1971 a two-day in-service training programme on drug education was held at the State Film Centre, Melbourne, for Departmental Officers engaged in this work.

A part-time librarian was employed in developing a reference library and a 35 mm. slide library.

An index on drug information and health education resources has been established and was maintained from current scientific literature. Approximately 120 scientific and medical journals were perused each fortnight for this purpose and articles of interest in the field of public health were obtained wherever possible from the authors in reprint form.

In November 1971 a Drug Education Advisory Committee was formed at the request of the Honorable the Minister of Health. Its aims are:—

1. To evaluate the nature and extent of the drug problem in the community and to determine the groups at risk.
2. To evaluate the content of drug education material and methods of presentation.
3. To evaluate the effect of drug education programmes.
4. To plan drug education programmes in the State and to advise the Honorable the Minister of Health on ways of implementing these.

During 1971 Departmental speakers assisted the Anti-Cancer Council of Victoria in its public education programme. This programme aims at informing the public of the relation between cigarette smoking and lung cancer and of the value of breast self examination by women in early diagnosis of cancer of the breast, and of the value of the "cell" test in the pre-symptomatic diagnosis of cancer of the cervix uteri. Twelve talks were given by Departmental Speakers as part of this programme.

Royal Society of Health. Victoria Board of Examiners.

In Victoria to qualify for a position as health inspector a person must hold a Diploma or Certificate which has been approved by the Commission of Public Health. The usual qualification is the Public Health Inspectors' Diploma issued by the Royal Society of Health.

The Victoria Board of Examiners is a local Board appointed by the Commission of Public Health in conjunction with the Royal Society of Health in London. Over the past twelve months it has formulated a new training programme for health inspectors.

Previously the part-time training course was of two years duration. It has now been changed to a three year part-time course and from next year it is proposed to extend the course to four years to include training in meat supervision.

The Board has also arranged for the publication of a Health Inspector's Handbook. The first volume was published in May and further volumes will be published to cover each year of training. The handbook is not only being used as a training aid for students but also as a standard reference for health inspectors in the field.

With the co-operation of the William Angliss College of Catering and Food Studies the Board has been able to enlarge its intake of trainee health inspectors for 1972. This year 50 students presented for examination in the first Unit of the new course.

The Commission of Public Health is aware of the need to ensure that Municipal Councils have available fully trained health inspectors who are capable of undertaking duties required under the Health Act and who are also trained and conversant with the advancing trends of community welfare and industrial development. The Commission considers that the revised course of training will adequately meet the theory aspects of the course and has agreed with recommendations from the Board of Examiners that students should receive more extensive practical experience during training. All Municipal Councils in the State have now been approached by the Commission with a request that where possible cadet health inspectors be employed. Many Councils have already co-operated by employing cadets and it is hoped that in-service experience coupled with academic training will provide future health inspectors with much wider vision in the field of public health administration.

Meat Inspectors' Course.

In October 1971 the annual examination for the Commission's Certificate of Competency as a Meat Inspector was conducted at the William Angliss College of Catering and Food Studies. Of the 103 candidates who entered for the examination 34 were students of the William Angliss College, 29 from the Bendigo Institute of Technology, 14 from the Yallourn Technical College, 20 from the Gordon Institute of Technology, Geelong, and 6 were students who had attended one of the special full-time courses of study for meat inspection arranged by the Department of Primary Industry in conjunction with the William Angliss College. Thirty-nine candidates passed the examination.

Also during the year three separate examinations were held for students engaged in the special Department of Primary Industry full-time courses.

Thirty-seven candidates out of 46 passed the first of these examinations, 27 out of 39 the second, and 27 out of 39 the third.

Prison Medical Service.

The medical services for the various prisons in the State of Victoria are maintained by the General Health Branch. At Pentridge Prison there has been one temporary medical officer, but more recently an additional medical officer has been appointed. At Pentridge Prison in addition, there is a consultant psychiatric service provided by the Mental Health Authority.

In the country prisons the medical services are provided by a medical practitioner visiting the prison regularly and providing emergency services. At McLeod Prison (French Island) regular visits are made by medical officers of the General Health Branch.

Pollution Control.

Consideration of Pollution Control this year has become more complex with the creation of the Environment Protection Authority. Officers of the Commission have devoted a large proportion of their time acting on committees formed to assist the Authority in its early developmental stages. At the same time, much work has been necessary in order to plan the future work of the Commission under the new legislation and in planning the additional finance and staff which will be required to adequately implement the new requirements.

The Commission has continued to exercise its powers in protecting the health of the community and in preventing environmental pollution. Dr. W. N. Sloan, Assistant Chief Health Officer (Public Health), spent five months of the year investigating the Public Health aspects of Pollution Control in four countries abroad and his experience will be invaluable during the establishment and function of a Pollution Control Division within the Department.

Cemeteries.

There are 756 Public Cemeteries and Private Burial Grounds recorded in Victoria.

Maintenance Grants totalling \$14,000 were allocated to Victorian Public Cemetery Trusts during the financial year 1971-72. A Government Loan of \$9,000 was successfully negotiated on behalf of the Benalla Public Cemetery Trust to enable them to carry out redevelopment works.

During the year 41 Health and Infectious Disease Certificates were issued in respect of bodies shipped overseas and 58 exhumation licences were approved.

During the year 25 medical practitioners were licensed by the Honorable the Minister of Health to sign Confirmatory Cremation Certificates, bringing to a total of 312, the number now licensed to sign these certificates.

Coburg and Heidelberg Cemeteries have no new grave sites and only reserved sites remain. Melbourne General and St. Kilda Cemeteries will reach this stage also during 1972-73. The Commission has recommended the purchase of additional land which should provide sufficient areas for earth burial during the foreseeable future.

Civil Defence.

The Commission's officers were not called to attend a disaster within the State during the year. However, training is being continued. A series of eight lectures were prepared for all trainee Health Inspectors. The Department's Displan Liaison Officer, Dr. W. N. Sloan, toured America and Europe during the year, looking, in part, at the public health aspects of Civil Defence.

Pest Control.

During the year rodent control has involved assistance and advice to the Melbourne Harbour Trust personnel engaged in rodent control as well as personal field inspections followed by recommendations and advice.

Rat Infestation on the Waterfront.

Rat infestation on the Melbourne wharves continues to be at a very low level this being largely due to regular inspection and servicing of the waterfront area. No sudden influx or infestation of rats during the year was reported.

A rodent problem however, occurred on Geelong Harbour Trust land. This involved a survey of the area involved and the submission of a report recommending remedial measures.

Rat Infestation in the State.

Several inspections were undertaken at Government owned premises including penal institutions and advice and assistance on eradication of rodents and pests was provided. Many householders were also given advice on various aspects of pest and rodent control.

Pest Control.

A number of inspections were carried out at Primary Schools, High Schools and private homes following the receipt of complaints and enquiries about various insects such as Red-Back Spiders, Lice etc. Recommendations for control were made.

Items of Special Interest.

During the year a considerable amount of research work was carried out with a member of the Victoria Police Force Planning and Research Department in relation to a suitable, safe and rapid method for the fumigation of police uniforms following the handling of verminous persons. Methods were recommended and submitted for further research by the Forensic Science Laboratory. Appreciation was expressed by the Officer of the Planning and Research Department for the assistance rendered by this Department.

Liaison with State and Commonwealth Departments and Municipal Councils has again continued at a satisfactory level.

Liquor Inspection.

Premises inspected:—

Hotels	..	..	..	..	..	..	..	442
Licensed Grocers	..	..	..	..	..	..	..	56
Sporting Arenas	..	..	..	..	..	..	..	21
Bottling Establishments	..	..	..	..	..	..	..	28
Aerodromes	..	..	..	..	..	..	..	2
								549

Of the 442 hotels visited 9 did not have a denaturing substance in the drip trays as required by the Cleanliness (Foods, Drugs and Substances) Regulations. A warning was given to the licensee in each case and follow up inspections were made.

Four licensed grocers were found to be selling wine with labels that did not comply with the labelling requirements of the Foods, Drugs and Substances Regulations. Sales were discontinued until the correct labels were used.

Of the sporting arenas visited one was found to be selling rum which had been bottled at the incorrect strength by the manufacturer. All bottles were removed.

At another sports venue adulterated gin was being sold. As this was very old stock, it was destroyed and a warning given to the operator.

In general, hygiene standards at these arenas were satisfactory.

Testing of beer was carried out at 57 hotels at the latter end of the year by means of a refractometer. All samples were satisfactory. A survey was carried out at 23 hotels to ascertain the efficiency of glass washing machines.

A prosecution taken under the Goods Act for adulteration of whisky was successful.

Two prosecutions taken under the Cleanliness (Foods, Drugs and Substances) Regulations for having no denaturing substance in the drip tray, were successful.

Opened bottles of spirits tested at above premises:—

Scotch Whisky	..	..	..	..	1,342
Australian Whisky	..	..	..	..	978
Imported Gin	..	..	..	..	212
Australian Gin	..	..	..	..	414
Imported Brandy	..	..	..	..	36
Australian Brandy	..	..	..	..	731
Imported Rum	..	..	..	..	348
Australian Rum	..	..	..	..	205
Schnapps	..	..	..	..	13
					4,279

Of these, the following were found to be adulterated:—

Scotch Whisky	20
Australian Whisky	2
Imported Gin	4
Australian Gin	4
Australian Brandy	3
Australian Rum	42
	75

Free Travel to Hospital for Pensioners and Persons of Similar Limited Means.

During the year 28,737 applications for free travel to hospitals were dealt with compared with 29,322 for the previous year. Of these, 110 applications were rejected, 50 because travel was desired on other than State owned transport or tickets were required for the purpose of visiting patients in hospital and 60 were not granted on account of the applicant failing to qualify as a "person of similar limited means to a pensioner" or not attending an approved institution. The remaining 28,627 applicants were issued with free rail vouchers and/or tram tickets.

The expenditure for the year was \$127,497, an increase of \$21,686 from the previous year. This was due to the rise in both train and tram fares in August, 1971.

Refunds of fares already paid were made to 67 applicants. Most of the refunds were necessary because of persons being summoned to hospital at short notice and having insufficient time in which to apply for free travel.

Although the majority of applications arrived through the post, an average of twelve people per day were personally attended to in the office. One applicant was prosecuted and fined for receiving tickets under false pretences, and was also ordered to make restitution to the Department.

Prosecutions.

The following successful prosecutions were instituted by the Commission during the year:—

Contravention.	Result.	Costs.
The sale of an unregistered proprietary medicine (2 charges) and false labelling (2 charges).	Fined \$80 (\$20 on each of the four charges).	\$ 25
Failure to install satisfactory air pollution control equipment.	Fined \$15.	30·50
Six (6) contraventions against the Cleanliness (Foods, Drugs and Substances) Regulations.	Fined \$150 in all.	50
The use of a preservative which is not permitted under the Food and Drug Standards Regulations.	Fined \$10.	28
Failure to wash a beer glass prior to serving a customer.	Charge proved. \$50 bond.	15
Failure to use a denaturing substance in a hotel bar.	Charge proved. \$50 bond.	50
Installation of air pollution control equipment without the approval of the Commission.	Charge proved. Hearing adjourned for 12 months.	72
Failure to operate a child minding centre under the conditions of registration granted by the Commission.	Charge proved. \$50 bond.	25·25
Failure to operate a child minding centre under the conditions of registration granted by the commission.	Charge proved. \$100 bond.	50
Failure to operate a child minding centre under the conditions of registration granted by the Commission.	Charge proved. \$20 to the Poor Box and hearing adjourned for 12 months.	25

LEGISLATION.

During the year the *Health Services (Fees and Penalties) Act* 1971 was given Royal Assent. This Act includes:—

- Increases in certain of the maximum fees payable for the granting, annual renewal or transfer of registration of premises required to be registered under the *Health Act* 1958.
- Increases in the maximum fees payable to Municipal Councils for the installation of septic tank systems. This particular amendment also provides for a Council to determine such fees by resolution instead of by means of a by-law.
- Increases in the maximum fees payable in respect of the examination and licensing of cinematograph operators.
- Increases in the general penalties for contraventions of the *Health Act* 1958.

Regulations.

As well as the Regulations referred to elsewhere in this report, the following were approved:—

Cleanliness (Foods, Drugs and Substances) Amendment Regulations 1971.

These regulations corrected the references to what were known as licensed victuallers premises in the Principal Regulations which were made necessary by previous amendments to the Liquor Control Act 1968.

Animal Food (Amendment) Regulations 1971.

These regulations set the 1st December, 1971, as the day on which the Principal Regulations would come into operation.

Offensive Trades (Amendment) Regulations 1971.

These regulations amended the definitions of "Knacker" and "Knacker's Yard" so as to bring within the requirements of the Principal Regulations the operations of itinerant knackers. The amendment also introduced a requirement that the proprietor of a knacker's yard who buys or acquires the carcass or part of a carcass of any animal which had a disease communicable to man, shall ensure that such carcass or portion of the carcass is rendered down.

Poisonous Substances (Amendment) Regulations 1971.

These regulations removed from the Principal Regulations the requirements applicable to certain poisonous substances used in the manufacture of textile substances and leather.

Meat Transport Vehicles (Amendment) Regulations 1971.

These regulations provide for the exclusion from the requirements of the Principal Regulations of vehicles used to transport meat or meat products packed in airtight sealed containers.

Animal Food (Amendment) Regulations 1971 (No. 2).

These regulations removed from the Principal Regulations requirements for the staining of certain pets' food and brought up to date the structural provisions applicable to animal food manufacturing premises.

Swimming Pools (Water Purification) Amendment Regulations 1971.

These regulations provide for the exemption from the Principal Regulations of a number of rural swimming pools.

Labelling of Hazardous Household Substances Regulations 1972.

These regulations consolidate the requirements applicable to various hazardous household substances. They also provide for the exemption from the requirements of the regulations of roll-on type personal deodorants.

Household Insecticides (Amendment) Regulations 1972.

These regulations provide for the use of the substance "carbaryl" in household insecticides and reduce the maximum permissible concentration of "neopynamin" in space and fly sprays.

Pest Control Operators Regulations 1972.

These regulations provide for the registration of pest control operators and the licensing of users of pesticides with the Commission as from 1st July, 1972.

Irradiating Apparatus and Radio-Active Substances (Amendment) Regulations 1972.

Following extensions to the regulation making powers contained in the *Health Act 1958* these amendments were introduced to improve the procedures for the licensing of users of irradiating apparatus.

Health (Treatment of the Scalp) Regulations 1972.

These regulations were introduced to control the activities of persons engaged in the treatment of the scalp of humans. The principal effect of these regulations is that they prohibit any person from representing in any manner that he is able to prevent, cure or alleviate baldness or loss or thinning of hair. A similar prohibition is also provided in respect of diseases of the scalp except that medical practitioners, registered pharmaceutical chemists and proprietary medicines registered for sale in Victoria are excluded from this particular requirement. In addition proprietors of newspapers printed and published in Victoria are not permitted to publish advertisements for the treatment of the hair and scalp. A maximum penalty of \$500 is provided for with a daily penalty of not more than \$100 for a continuing offence but so that the total of such penalties shall not exceed \$2,000.

Health Act (Level of Penalties) Regulations 1972.

These regulations increase the level of penalties of 41 regulations made under the *Health Act* 1958.

Registration (Health Acts) Amendment Regulations 1972.

These regulations increase to the maximum permissible under the *Health Act* the fees payable to the Commission for the granting, annual renewal or transfer of registration of premises under the Act.

Respectfully submitted,

W. J. STEVENSON
T. R. FLOOD
A. S. THOMSON
A. C. PITTARD
H. WILLIAMS
J. E. DALEY
G. STILLWELL

} Members of the Commission.

A. T. GARDNER, Secretary,
Melbourne, 19th September, 1972.

