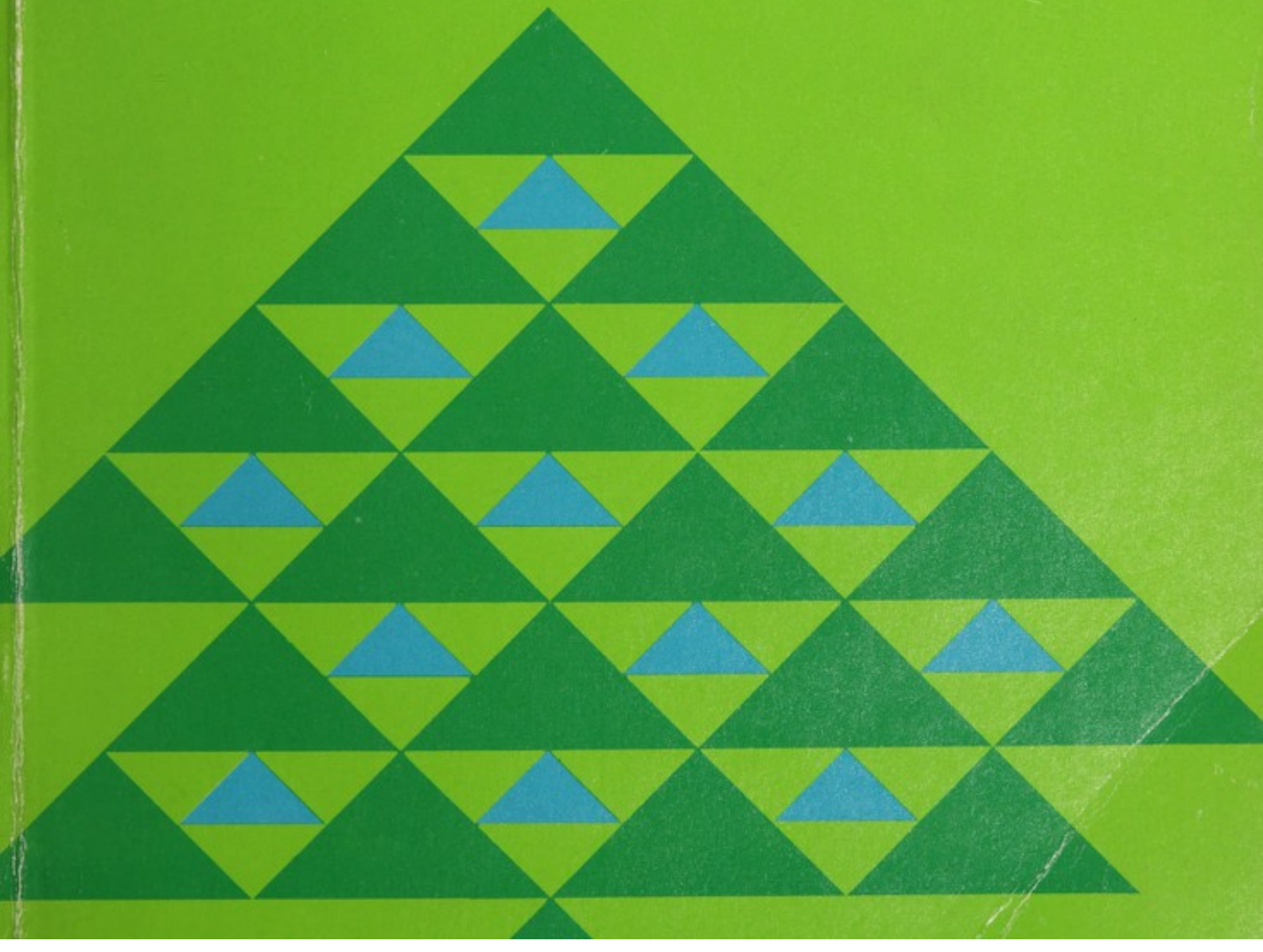
Report of the Director-General of Health / Commonwealth of Australia.

COMMONWEALTH DEPARTMENT OF HEALTH

Annual Report of the Director-General of Health 1975-76



COMMONWEALTH DEPARTMENT OF HEALTH

Annual Report of the Director-General of Health 1975-76

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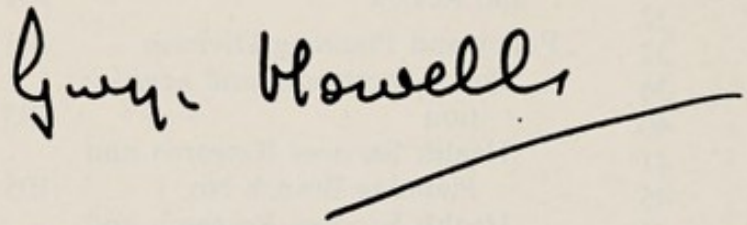
The Hon. Ralph J. Hunt, M.P.
Minister for Health
Parliament House
Canberra

I present herewith my report of the activities of the Commonwealth Department of Health for the year ended 30 June 1976.



Gwyn Howells
Director-General of Health
September 1976
Canberra, A.C.T.

Introduction

Medical historians from some future civilisation who may open a time capsule and scan the newspaper headlines of the 1970s will find an abundance of material for their doctoral theses. They will note a number of popular health themes recurring constantly, themes reflecting the interest of 1970 man in particular aspects of his body and its functions and preservation.

Those themes will be easily classifiable through certain key words such as 'cancer', 'environment', 'cigarettes', 'heart', 'marihuana', 'pollution' and, of course, 'alcohol'. And if those future historians wish to quantify the themes as a guide to their order of popularity with the headline writers and readers of a long-ago civilisation, it is certain that the word 'alcohol' and its synonyms will clearly top the list.

It is equally certain that the historians (who, let us assume, belong to a civilisation which has conquered 1970-style bodily ills) will be puzzled by the alarmed, and alarming, tone of the headlines.

'Alcohol biggest accident cause.' 'Grip of the grog costs us $1000 m a year.' 'Grog the great killer.' 'Children turn to heavy drinking.' 'Drunken pedestrians walking to quicker death.' 'Teenage alcoholic problem is growing.' 'High fatality rate revealed among drinking drivers.' 'Tragedy of the alcoholic wife.'

This random selection of headlines from the past year will certainly make those future historians wonder how any civilisation advanced enough to land men on the moon and harness the power of the atom could have permitted such headlines to be written, or could have tolerated a social mode which produced the facts on which the headline writers based their words.

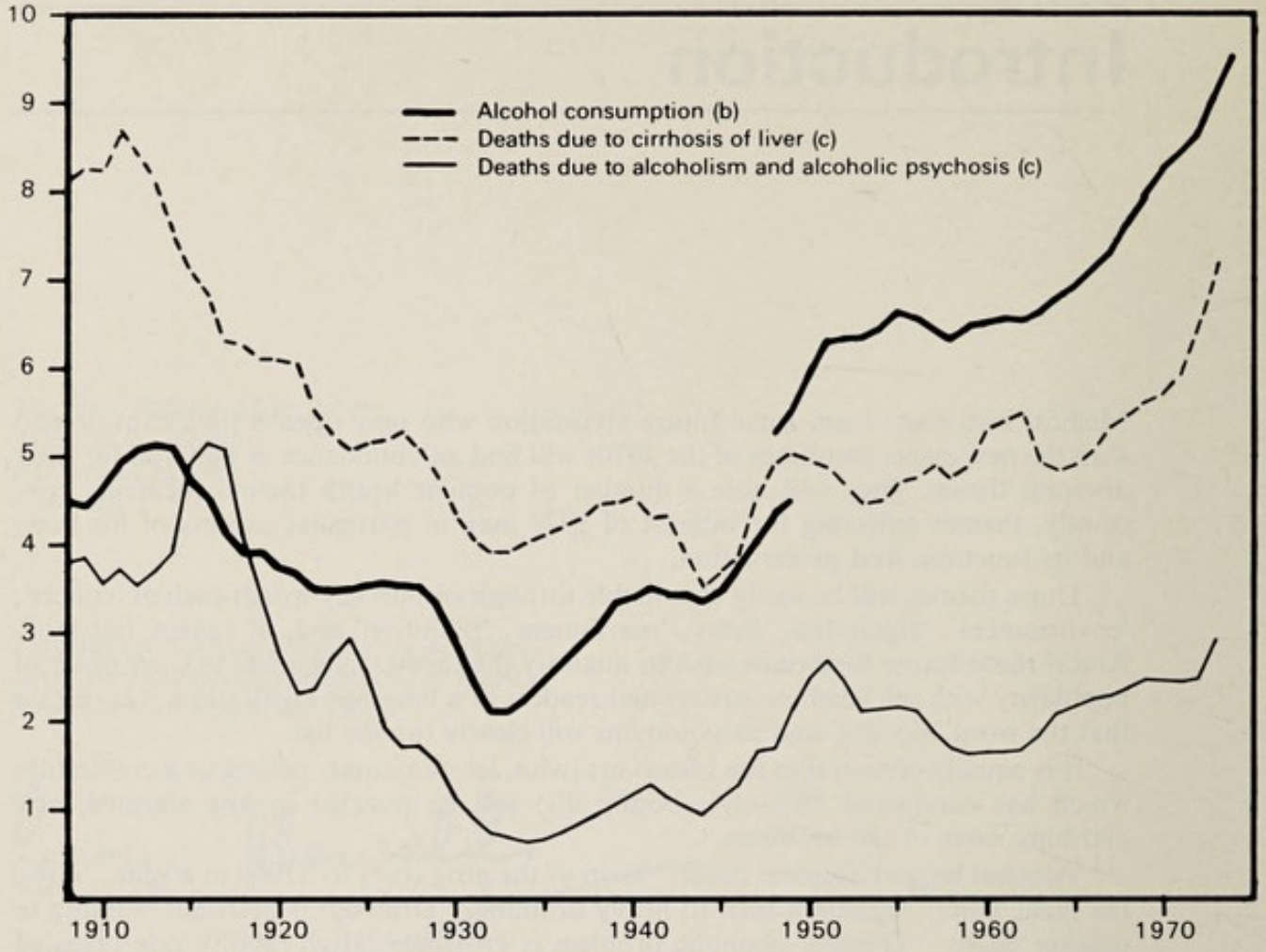
And this, of course, leads us to that Pandora's Box of dilemmas concerning alcohol.

Used sensibly, alcohol is a pleasant and useful social lubricant, a substance which, as the Psalmist sang, 'maketh glad the heart of man'. Unfortunately too many people, in Australia as in most similar countries of the world, have not learned, or have forgotten, how to use it sensibly. And health authorities, grappling with alcohol-related problems, are facing a constantly growing major public health issue.

During the past ten years, per capita alcohol consumption in Australia has climbed steadily upwards. Latest available statistics show that in the year 1974-75 Australians drank a total of 1922 million litres of beer, 168 million litres of wine and 16 million litres of alcohol in spirits—the equivalent per person of 142.66 litres of beer, 12.47 litres of wine and 1.21 litres of alcohol in spirits.

Ten years earlier, in 1964-65, Australians were drinking only 109.88 litres of beer, 5.55 litres of wine and 0.94 litres of alcohol in spirits per person. The great Australian thirst for beer has thus advanced by nearly 30 per cent per person in ten years while wine drinking has more than doubled in popularity.

Of course, not all of Australia's population are drinkers of alcohol. If the consumption figures for 1974-75 are applied only to people 18 years of age and over, the per capita figures rise to 212.9 litres of beer, 18.6 litres of wine and 1.8 litres of alcohol in



(a) To highlight the trends in the series over time, a three year moving average has been applied to the original figures.
(b) Consumption measured in litres of alcohol per person, based on average alcohol strengths by volume of 4.8% for beer, 15% for wine. Estimated wine consumption not available prior to 1947.
(c) Deaths due to cirrhosis of the liver, and alcoholism and alcoholic psychosis, per 100 000 population.

Changes in community consumption of alcohol influence the extent of deaths from alcohol-related diseases.

spirits. But the steady increase in total consumption cannot be attributed only to the 18 and over segment of the population. Secondary school students are reported to be joining the ranks of drinkers in growing numbers. Certainly a greater proportion of the population is now consuming alcohol than was the case a decade ago. Of course, there are many people aged 18 and over as well as many younger people, who do not drink alcohol at all. And while it is not possible to estimate the consumption per drinker, those who do consume alcohol are drinking a substantial—and increasing—amount each year. Among them are many alcoholics—some authorities estimate as many as 300 000 in the Australian population.

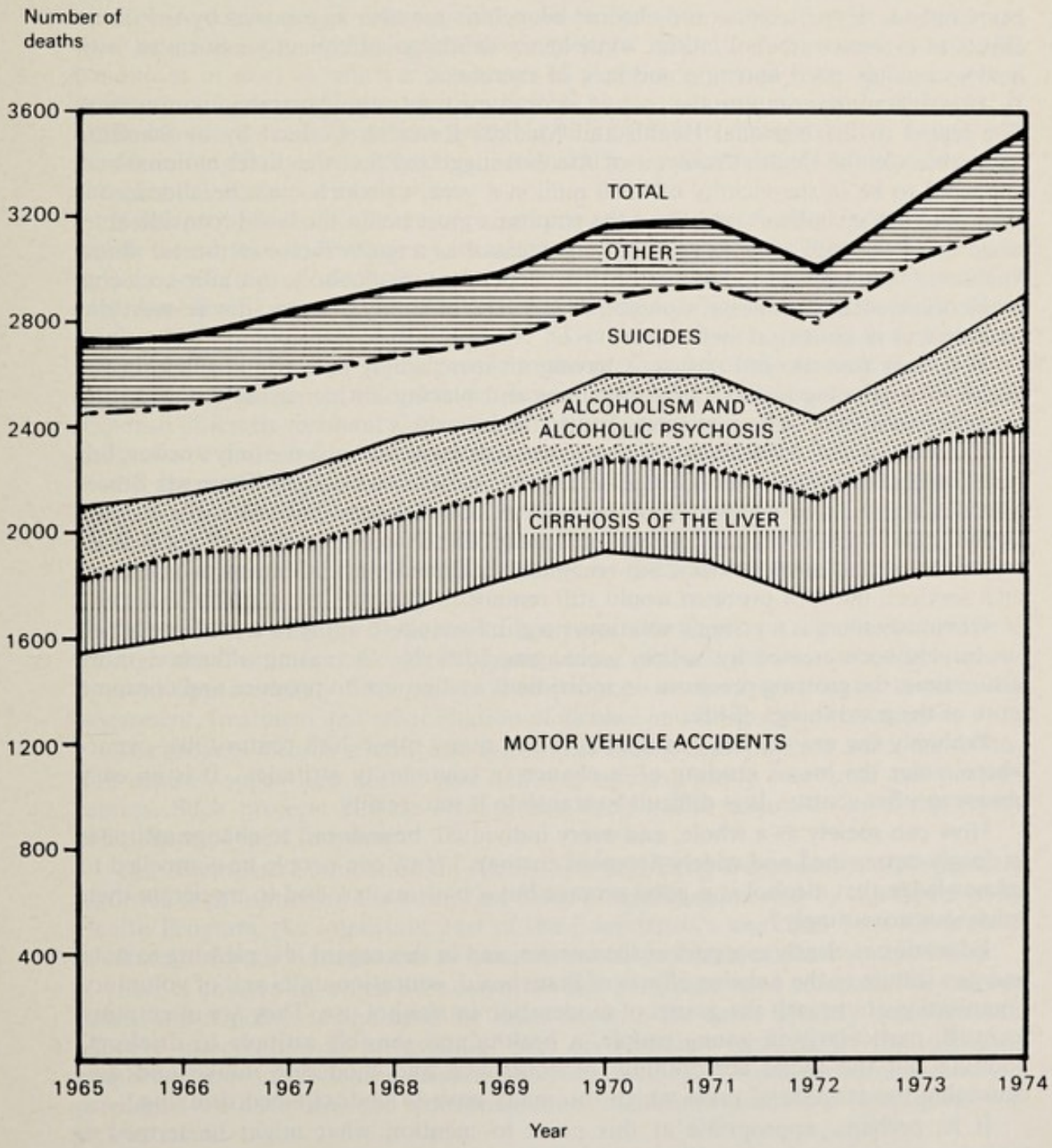
The production of alcoholic drinks in Australia has, naturally, kept pace with the demand. Beer production in 1973-74 totalled 1867 million litres, an increase of more than 50 per cent in ten years, while production of unfortified wines rose in the same period by an astonishing 278 per cent to a total in 1973-74 of 149 million litres. Imports of all varieties of alcoholic drinks have also climbed steadily during that time.

In 1974-75, we Australians spent a total of $2039 million on alcohol, about one-third of the amount we spent on food and 5.9 per cent of our total personal con-

sumption expenditure. Expressed in another way, we spent the equivalent of $151.39 for every Australian man, woman and child on alcoholic drinks in that year, and $225.87 for each person 18 years and over.

And as the usage of alcohol has climbed, so have the health problems related to it. This is perhaps most clearly illustrated by the statistics for deaths from diseases almost totally attributable to alcohol—alcoholic psychosis, beriberi and alcoholism. Over the last ten years there has been an increase in the death rate from alcoholic psychosis of 4.1 per cent, from beriberi of 16.7 per cent, and from alcoholism of a startling 54.8 per cent. (It is worth noting here that by far the biggest percentage of these deaths occurred in the age group from 45 to 64 years.)

Alcohol is a major factor in over 3000 *deaths each year.*



For further details regarding this graph see Table 19, in Statistical Appendix.

The rate of deaths from cirrhosis of the liver, more than half of which are believed to be related to alcohol, increased by 72 per cent, while deaths from other conditions often causally related to alcohol—for instance motor vehicle accidents and homicides —also rose. It is certain that even if there was no further increase in the consumption per person of alcohol, the current high intake will continue to push up the death rates for alcohol-related diseases for years to come.

And it is not only mortality rates which reflect the rising consumption of alcohol. The incidence of acute and chronic illness has also been affected. Alcohol is thought to play an important causative role in at least 25 per cent of road accidents which result in injuries. It adds to the burden of mental hospitals too. For example, statistics for New South Wales for the year 1973-74 showed that one in four patients admitted to mental health institutions were there because of alcoholism or alcoholic psychosis.

Similarly, alcohol contributes directly to many common illnesses, particularly heart disease. Hypertension and chronic bronchitis are also aggravated by the direct effects of excessive alcohol intake, while heavy drinking is frequently associated with heavy smoking, poor nutrition and lack of exercise.

It is difficult to compute the cost of alcohol misuse to the Australian community. The report to the National Health and Medical Research Council by its Standing Committee on the Health Problems of Alcohol suggested that the direct national cost appeared to be in the vicinity of $250 million a year, to which must be added considerable further indirect cost. And the emphasis must be on the word 'considerable' when one takes into account alcohol's significance as a major factor in mental illness (including that among the families of those dependent on alcohol), in traffic accidents in the occurrence of crimes of violence, in mental and family discord, in wife and child bashing and in industrial inefficiency.

It is clear that alcohol misuse is having an increasingly deleterious effect on the health of a growing number of Australians and placing an increasing strain on the nation's health and welfare services. Sadly, the remedy is far from clear.

There are a few in the community who say that prohibition is the only answer, but such extreme solutions are no longer acceptable to society at large. There are others who demand a more rigorous punitive approach, but longer jail terms for chronic alcoholics will not necessarily cure their disease. Others see a solution of sorts in an expansion of treatment services, but recognise that, even with unlimited provision of such services, the root problem would still remain.

Obviously there is no simple solution, no glib formula to apply to a problem which has largely been created by society's changing lifestyle—increasing affluence, more leisure time, the growing pressures on individuals and groups to produce and consume more of the good things of life.

Probably the answer lies—as it does for so many other 20th century ills—somewhere under the broad heading of 'a change in community attitudes'. It is an easy phrase to offer society. It is difficult to translate it into reality.

How can society as a whole, and every individual, be induced to change attitudes to deeply-entrenched and widely-accepted customs? How can people be compelled to acknowledge that alcohol is a good servant but a bad master, and to moderate their behaviour accordingly?

Education is clearly one part of the answer, and in this regard it is pleasing to note and pay tribute to the untiring efforts of State health education units and of voluntary organisations to preach the gospel of moderation in alcohol use. They are attempting to instil, particularly in young people, a healthy and sensible attitude to drinking, pointing out the social acceptability of controlled and moderate intake and discouraging the attitude of pride which too many have in undisciplined drinking.

It is, perhaps, appropriate at this point to mention what might be termed a 'conspiracy of silence' concerning alcohol—the refusal by so many people to acknow-

ledge that a problem even exists. It is seen in the attitude of many adult moralists who castigate young people for their attitudes to drugs while at the same time declining to moderate their personal over-indulgence in alcohol—a double standard which is indefensible in the eyes of the young.

Alcohol-associated morbidity and mortality are often accepted as unalterable facts of life by professionals and laymen alike. Obviously education is needed for members of every stratum of society as part of the process towards change in community attitudes and practices.

Another part of the process lies in a continuous monitoring of legislation concerning alcohol-related offences. The recent introduction of a trial period of random breath testing in Victoria, designed actively to discourage motorists from drinking and driving, is an interesting example of this non-stop examination of legal values. Other matters under legal microscopes include the question of the availability of alcohol. A consensus of international opinion has shown that there is an optimum level of availability within communities (related both to numbers of outlets and conditions of sale) at which a maximum of pleasure is gained from alcohol, with a minimum of inconvenience and restriction and a relative minimum of harm. If alcohol is more available or less available, this balance is disturbed. It is hoped that Australian legislators recognise this factor and its implications for health when they consider the matter of availability.

Some proponents of change urge authorities to introduce selective excise policies which would favour beverages with a lower alcoholic content. Others seek a compulsory lowering of alcoholic content in drinks. Others again seek more active enforcement of current laws concerning the minimum age for supply of alcoholic drinks, and compulsory controls on the advertising of such drinks, as a means of reducing the exposure of young people to the pressure to drink alcohol. In this latter regard it is pleasing to note that the liquor industry has shown itself aware of its responsibilities by voluntary acceptance of an advertising code. Self regulation is always to be preferred to compulsion. I am pleased to pay tribute to this.

All these matters, of course, have wide implications and accordingly need wide debate before decisions can be taken. And while such debates are taking place health authorities, including my own Department, are busy with the vitally necessary task of providing more and better treatment services—another important element in the process of changing community attitudes.

I am pleased that my Department has been able to play a significant role here through the Community Health Program which, in the financial year under review, directed approximately $4.5 million into projects oriented specifically toward the assessment, treatment and rehabilitation of alcohol and drug dependent people.

The projects include referral and assessment clinics, detoxification units, rehabilitation centres, supervised hostels and half-way houses, family care units and drop-in centres. Such projects include alcohol and drug health education as a significant component of their function.

The Australian Foundation on Alcoholism and Drug Dependency, a particularly vigorous organisation in the education field, is heavily supported by the Community Health Program. An important part of the Foundation's work has been the arousal of interest of both management and unions to the problems of alcohol in industry.

This is an area to which little attention has been paid until comparatively recent times, and it points to the need for more work in the fields of early detection and effective intervention as an essential part of treatment services. Of the unknown number of individuals whose drinking interferes with their work performance, only a privileged few have benefited from enlightened management/union policies of referral to treatment.

Similarly, few hospitals have any special facilities for intervention and treatment

of the basic problem for those patients admitted with illnesses related to alcohol misuse. And again, few people convicted of drink-driving offences are exposed to any effective remedial program.

It is now becoming recognised that punishment of problem drinkers is generally ineffective in producing change—a matter which was noted by the National Health and Medical Research Council in its adoption of the report of the Standing Committee on the Health Problems of Alcohol.

At its eightieth Session, the Council agreed with the Committee's view that the most effective means of dealing with both the therapeutic and preventive aspects of the abuse of alcohol are:

- The development of more effective health services in greater quantity.
- A vigorous campaign mounted by industry (both unions and management), together with health authorities and voluntary organisations, to encourage programs of prevention, care and rehabilitation in industry.
- Control of the advertising and labelling of alcoholic drinks.
- A change from the traditional approach to offenders against the law where alcohol is involved, to enable and ensure that medical care and rehabilitation play a prominent part in treatment.
- Extension of health education programs both in relation to existing programs relating to drugs and smoking, and as part of a general program of 'education and living'.

These recommendations have been distributed in the past year to interested bodies including the Conference of Australian Health Ministers, legal and educational authorities, and a wide range of community organisations involved in the treatment and rehabilitation aspects of the problems of alcoholism. They will undoubtedly help in the continuing debate which, hopefully, will point the way to that sought-after change in community attitudes and, ultimately, to the disappearance of alcohol-related problems as one of society's major public health problems.

It would be a splendid achievement if, in our lifetime, those newspaper headlines were to change, were to record that Australia and the world had come to terms with alcohol. What a splendid legacy that would be for future generations. And those future medical historians would be able to conclude their doctoral theses by writing that today's attitudes were but a passing phase for an otherwise civilised civilisation.

Turning now to specific matters relating to my Department, I would like to record briefly some of the highlights of a memorable year in the Department's history.

Following the change of Government in December 1975, responsibility for health insurance was transferred back from the Department of Social Security—a move which considerably broadened the Health Department's role and responsibilities. The Medical Insurance Services Division, the Hospital Insurance and Nursing Division and the Health Insurance Development and Review Branch were involved in the transfer. The move also brought the Department into close association with the Health Insurance Commission.

In January 1976, the Government announced that a Medibank Review Committee, chaired by Mr Austin Holmes, would examine the Medibank program with a view to reducing Government expenditure on health insurance and increasing Medibank's efficiency. On 20 May, the Government announced a number of modifications to Medibank to take effect from 1 October 1976. The major changes were a levy on taxable incomes to partly finance Medibank and provision for opting out of Medibank by purchasing medical and hospital cover from a private fund. On 8 June, the Government made further modifications to its proposals to allow Medibank to offer private insurance cover for medical and hospital costs. My officers were, of course, closely

involved in policy aspects of the modifications, undertaking an unusually heavy workload during June and into the new financial year.

Turning from Medibank to another kind of health insurance—that of preventive medicine—I am pleased to record that tuberculosis authorities believe Australia has now achieved its long-term goal of bringing the disease under control. In May 1976 the Commonwealth Government announced its intention to terminate the Australia-wide campaign to control the disease, effective from 31 December 1976. Australia has been raised from a position of relative obscurity in 1949, when the campaign was launched, to a leading world position in tuberculosis control today. Any further outbreak of the disease is not now a danger, since the States are equipped and in a position to maintain the satisfactory level of control reached.

It is also satisfying to note the continued success of the World Health Organization's world-wide smallpox eradication campaign. The last known case of the disease in Asia was diagnosed on 16 October 1975, and Ethiopia was thus left as the last country in the world infected with smallpox.

This improved situation has had a major effect on Australia's attitude to the disease. Travellers to this country now require a vaccination against smallpox only if they have been in Ethiopia during the preceeding two weeks. The future of Australia's human quarantine stations is being considered in the light of the expected world-wide eradication of smallpox.

The Department's quarantine functions, by their very purpose of preventing the accidental importation of disease into this country, naturally involve restrictions which, more often than not, make quarantine an unpopular process. I am glad to say that quarantine procedures in this country have always been applied with firmness, even under the heaviest of pressure from outside interests. An example of such pressure is that which followed the announcement during the year of storage requirements for cheese imported from a number of countries where foot and mouth disease is present. The requirements were announced following the receipt of scientific evidence from the United States Department of Agriculture that the virus of foot and mouth disease can survive for a period in certain cheeses.

A quarantine undertaking of a different type followed the detection of Oriental fruit fly on Melville and Bathurst Islands, off the Northern Territory coast, during November 1975 and subsequently on the Territory mainland. Because of fears that the fly presented a major threat to the Australian horticultural industry, an emergency suppression campaign was initiated in co-operation with CSIRO, State Departments of Agriculture and associated federal departments. Subsequent surveillance indicated that the fly was located in pockets over an area of 300 000 square kilometres. The suppression campaign was then halted and replaced by a comprehensive program involving continued surveys, biological and behavioural studies of the fly in the infested area, and the introduction of practical quarantine procedures within the area.

In my introduction to last year's Annual Report I placed particular emphasis on the health problems associated with smoking. In the National Warning Against Smoking campaign, attention has been given to ways of discouraging people, particularly the young, from taking up smoking. Television and radio advertising has been considered as one of the most important factors in encouraging people to become smokers, and during the year many representations were received concerning the proposed ban on cigarette advertising on radio and television, which had been initiated by the previous Government. After careful consideration of all aspects of the matter, the new Government agreed that the ban should proceed as scheduled from 1 September 1976.

As its contribution to International Women's Year, the Department of Health organised the conference 'Women's Health in a Changing Society', which was held in Brisbane in August 1975. The conference was sponsored jointly by the Department

and the National Advisory Committee for International Women's Year. Some 950 women and men from overseas and all parts of Australia attended the week-long proceedings. The conference was most successful and was acknowledged to be one of the highlights of International Women's Year.

The national approach towards upgrading Aboriginal health standards to the level enjoyed by their fellow Australians, is continuing. A valuable co-operative effort between this Department, the Department of Aboriginal Affairs, the Australian College of Ophthalmologists, State Governments and the National Aboriginal Consultative Committee is making possible a national program for the treatment of trachoma (sandy blight) and associated eye diseases among Aborigines.

I am pleased to record that the rehabilitation of Darwin following Cyclone Tracy is continuing satisfactorily and that the return of Departmental personnel who were transferred to Brisbane after the cyclone has begun.

A discussion paper on the organisation and functions of a possible Northern Territory Health Commission has been circulated to interested people and organisations, and comments from the Northern Territory Legislative Assembly and other organisations have been received.

The Capital Territory Health Commission came into formal being on 1 July 1975, and has operated independently throughout the year, although the Department still maintains close links with the Commission and its personnel.

The scientific laboratories attached to the Commonwealth Department of Health—the National Biological Standards Laboratory, the Australian Dental Standards Laboratory, the Australian Radiation Laboratory, the National Acoustic Laboratories and the Ultrasonics Institute—continue to receive world recognition for their work. The newest of these, the Ultrasonics Institute, made a particular mark during its first full year of operation. The production prototype of the Institute's U.I. Octoson was developed by a commercial licensee, Nucleus Holdings Pty Ltd, and is undergoing clinical trials at the Royal Hospital for Women in Sydney before transfer to the United States for independent clinical evaluation in that country. This commercially available unit is already much in international demand even before its release. It bids fair to be the best machine of its kind in the world.

The above aspects of the Department's work are discussed in detail in the following pages, together with a description of the year's activities in all areas.

Quarantine Division

General Quarantine

Australia recorded another year of freedom from smallpox, cholera and plague, thanks both to a continuing world-wide improvement in disease control and to the constant vigilance of the Department's general quarantine service.

Smallpox

The campaign of eradication of smallpox sponsored by the World Health Organization continued throughout the year with further dramatic success.

The last case in India was reported in May 1975. Although at that time an epidemic was spreading in Bangladesh, an intensified eradication program soon brought it under control.

What eventuated as the last known case of smallpox in Asia was diagnosed on 16 October 1975 and WHO subsequently removed Bangladesh from its list of infected areas on 18 December. It is believed that the severe type of smallpox, *variola major*, which had resulted in case fatality rates of 20 to 30 per cent and had been prevalent throughout Asia, has been eliminated.

Ethiopia was thus left as the last country in the world infected with smallpox. The form occurring there is similar to *variola minor*, and has a case fatality rate of only about one per cent. In response to an intensified search and vaccination program the number of infected Ethiopian villages has dropped steadily, and at year's end the report of the last case was confidently expected in the near future.

Eight months has been the longest period to date during which a hidden focus has persisted in a country thought to be free of the disease. WHO experts believe that at least two years of active surveillance following the onset of the last known case will be required to confirm that smallpox has in fact, been eradicated.

With the decreased prevalence of the disease during the year, a further relaxation of requirements for smallpox vaccination of travellers entering Australia was possible. From October 1975, only persons who have been in a smallpox infected country within the previous two weeks have required vaccination.

Some countries in South-East Asia however, have maintained more stringent restrictions, requiring vaccination of all travellers, so that the benefit to travellers of Australia's eased restrictions has been somewhat diminished.

Cholera

Although fewer countries reported cholera to WHO during the year, the disease continued to be prevalent and was officially declared to be epidemic in Indonesia.

Immunisation of travellers does not prevent international spread of the disease and is no longer required for entry to Australia or to most countries overseas.

Quarantine stations

The expected world-wide eradication of smallpox will remove the main reason for the retention of human quarantine stations throughout Australia and consideration is being given to their closure.

These stations were originally established for the treatment of sufferers from smallpox and for the isolation of people coming to this country without current vaccination certificates for smallpox, cholera and yellow fever. The changing world patterns of other diseases have already reduced the use of the stations for isolation purposes and in any case, they are not able to provide the intensive care necessary for the treatment of people suffering from diseases like yellow fever, cholera, marburg virus disease and lassa fever. Modern hospital facilities are essential for the treatment of these diseases.

A proposal has been put to the States that they should accept responsibility for the treatment, care and investigation of quarantinable diseases, other than smallpox, should the Commonwealth close its human quarantine stations. The Commonwealth would retain responsibility for human quarantine policy and co-ordinate and accept financial responsibility for costs incurred by the States in the matter. The States are considering the proposal.

Not all quarantine stations would close until Australia was satisfied that smallpox had been totally eradicated.

Advice to travellers

Australia's growing numbers of international travellers continued to seek information from Departmental centres on the advisability of measures against cholera, typhoid, malaria, hepatitis, poliomyelitis, yellow fever, tetanus and more rarely—typhus or plague.

Travellers are advised that immunisation against exotic disease, preferably begun two months before departure, can provide a measure of protection for the individual visiting areas of prevalence. Those who inquire about protection against rabies are advised that their best course lies in the avoidance of animals and the immediate seeking of medical attention if bitten or scratched by any animal while abroad. The Departmental centres, incidentally, are the only places where travellers to Central Africa and South America can be vaccinated against yellow fever.

Cholera is only one of several diseases, including typhoid fever, infectious hepatitis, amoebic dysentery and various forms of food poisoning, which are commonly transmitted by food and drink contaminated by the faeces of sick or even apparently-well carriers of the disease, by soiled hands or flies.

In a period when extended tours through the villages of tropical countries have become popular, it is worth repeating that care should be exercised in such surroundings to drink only reliably treated or boiled water and pasteurised or boiled milk, and to avoid unpeeled raw fruits and vegetables, milk products and shellfish. Travellers are also advised not to be misled by the wellbeing of local inhabitants who usually have acquired a tolerance of the local infections which is lacking in the traveller.

Travellers are reminded too that insects, especially mosquitoes, can transmit a variety of diseases. Commonsense dictates the avoidance of breeding areas and the use of screening, repellents and full-cover clothing at night to reduce bites to a minimum. It is important to remember also that anti-malarial drugs, if taken in malaria endemic areas, are suppressive only. The drugs should be continued for a month after return to Australia and possibly followed by a 14-day curative course of other drugs to complete eradication.

The history of an overseas trip should in every case be brought to the attention of the doctor if medical care is required by a traveller at any time up to a year after returning home.

Aircraft disinsection

Vigilant precautions were maintained at airports throughout the year to ensure that insect pests which could offer a risk of human, animal or plant disease were eradicated on all aircraft arriving from overseas.

At present quarantine staff board the aircraft and spray both cabins and cargo holds with concentrated insecticide from aerosol cans. A short spray is given to stun any flying insects and after passengers disembark, a long spraying is carried out to kill the insects especially the more resistant plant pests.

Continuing research is being conducted by the Department in association with Qantas on improved formulations of sprays and automatic devices for in-flight spraying of the cargo holds.

The construction of a unit to disinsect automatically the cargo compartment of a Boeing 747 is almost finalised. With the unit, an aerosol system will be triggered off by the operation of the aircraft's brakes on landing. Droplet sizes will be such as to allow the insecticide to penetrate to insects that may be concealed in narrow spaces in the aircraft. Providing sufficient time is allowed, a 100 per cent knockdown of insects can be obtained.

Animal Quarantine

There was an increase in almost every area of animal quarantine surveillance during the year. There were significant policy changes, and further changes in the implementation of a rational quarantine policy can be foreshadowed.

Importation of cheese

A contentious item of legislation was the placing of restrictions on the importation of cheese from countries in which foot and mouth disease is endemic. Evidence from the United States Department of Agriculture demonstrated that the foot and mouth disease virus can remain viable in cheese after manufacture. For this reason it was decided that cheese from foot and mouth countries should be subject to a quarantine period of 120 days, from the date on which the cheese was exported from the country of manufacture.

Two further restrictions were placed on such cheese to ensure destruction of the virus. The pH of cheese must be more acid than pH 6 and the temperature of storage must be not lower than 2°C. Manufacturing processes of certain types of processed cheese ensure that the virus is inactivated. Provision has been made in the legislation for such types of cheese to be exempted from certain of the quarantine restrictions provided the Department is satisfied that such manufacturing processes and tolerances

Patrons of the 1975 Adelaide Show found plenty to interest them at a special quarantine exhibit staged by the South Australian Department of Agriculture in conjunction with the South Australian Division of the Commonwealth Department of Health. The continuous screening of two quarantine films made by the Health Department proved particularly popular. Among the exhibits were goods which posed a disease threat to Australian primary industry, confiscated by Quarantine Officers from passengers arriving in Australia by ship and aircraft.

have been applied. It is expected that only a small number of cheeses with a very short shelf life will be unable to meet the new quarantine requirements.

Air transport of stock

A major advance in the transportation of cattle, sheep, pigs and horses has been possible following the improvement of technical and administrative arrangements for the disinfection of stock-carrying aircraft. The new procedures will enable aircraft, after disinfection in Australia or New Zealand, to move freely between those countries and anywhere within the Australian continent. This had already facilitated the transport of livestock interstate and between Australia and New Zealand. Previous policy had been that stock-carrying aircraft from overseas were not permitted to carry livestock within Australasia.

The new procedures have resulted in an increase in the movement of cattle between Australia and New Zealand. The conditions of importation of cattle from New Zealand are unchanged from those which apply to importation by sea.

Foreign fishing vessels

A continuing quarantine problem has been the incursion of foreign fishermen into waters near the Australian coast and unauthorised landings by crews from such vessels. Military surveillance of the northern areas of the Australian coastline has been effective in preventing any landings during the past two years. This deployment of defence resources has enabled a more economic and effective use of quarantine staff in investigating rumours of landings.

Cattle semen imports

The importation of cattle semen from Canada has been suspended following a report of bluetongue, a disease of sheep and cattle. Negotiations are being carried out with the United States Department of Agriculture regarding the importation of cattle semen from that country. It is hoped that these negotiations will be finalised early in 1977.

Quarantine stations

Consideration is being given to the development of an off-shore animal quarantine station from which livestock can be introduced from any part of the world. At the

These novelty toys, seized by Quarantine Officers in Sydney, were found to contain meat sausage which is a prohibited import. They were being brought into Australia by a traveller from a European country in which foot and mouth disease is endemic.

same time accommodation at existing animal quarantine stations in Australia is being up-dated and developed to meet the big increase in importations of livestock. The increased importation of horses has placed a particular strain on facilities. Animal quarantine stations are located in Brisbane, Sydney, Melbourne, Adelaide and Perth.

Plant Quarantine

Officers of the Plant Quarantine Branch were closely involved in activities which followed the detection in northern Australia of the Oriental fruit fly. Among other major activities, the Branch organised the Tenth Session of the Plant Protection Committee for South-East Asia and the Pacific Region, which was conducted on behalf of the Food and Agriculture Organisation in Canberra in February this year.

Oriental fruit fly

Oriental fruit fly (*Dacus dorsalis*) is one of the world's most damaging fruit flies. It attacks a wide variety of fruits and vegetables, and presents a major threat to Australia's horticultural industry which has an annual production valued at some $320 million.

As reported last year, a Sub-Committee of the Standing Committee on Agriculture had initiated a monitoring program in vital areas to keep watch for fruit fly or other exotic insect pests. The Sub-Committee met in November 1975 following notification of the first positive identification of *D. dorsalis* from insects trapped on Melville

The first discovery of the Oriental fruit fly in Australia was made on Melville Island during the year and prompted immediate action to contain the outbreak. Here, Dr R. Drew, Senior Entomologist, Queensland Department of Primary Industries, and Mr Alan Allwood, Chief Entomologist, Animal Industry and Agriculture Branch, Department of Northern Territory, examine a methyl eugenol male lure trap on Melville Island.

A spraying program was commenced immediately on Melville and Bathurst Islands and then on the mainland after discovery of specimens at Gunn Point. The spraying program was halted when it was found that the fly was established over a wide area of the Northern Territory.

Island, off the Northern Australian coast. The Sub-Committee, which then became a Working Party to direct a campaign against the fly, recommended a program of monitoring, suppression and eradication.

Proclamations were issued declaring *D. dorsalis* a quarantinable disease, and the Commonwealth Government approved the expenditure of $111 000 to cover the program on Melville Island and neighbouring Bathurst Island.

At first it was considered that infestation could be restricted to the two islands. However, in early December a positive identification was made from Gunn Point, north of Darwin, indicating infestation on the mainland also. A decision was taken to mount a major campaign of monitoring, suppression and eradication at a cost of $1 692 000.

This campaign continued until the third meeting of the Working Party in late January. At this stage positive identification had been made from locations as far south as the Daly and Roper Rivers, involving 200 000 square kilometres, with the actual limits still to be determined. In view of this, the Working Party recommended that suppression be postponed and any attempt at eradication be deferred, while monitoring was to be extended further south into the Northern Territory and across the upper Gulf Country.

At its fourth meeting, the Working Party was told that the infestation had been defined as an area of 300 000 square kilometres within the Top End of the Northern Territory. Extensive surveys had failed to reveal the presence of the fly in northern Queensland and only a single damaged specimen was found in the Kimberly area of Western Australia.

The Working Party then recommended that surveys in northern Australia be continued with biological and behavioural studies of *D. dorsalis* in the infested area. Practical quarantine procedures should be maintained within the area, and the situation should be kept under continuous review. A report on this basis was prepared for submission to the Standing Committee on Agriculture. Only $350 000 of the allocated money was spent on the campaign.

As a result of recent investigations both overseas and in Australia, it is now concluded that the Oriental fruit fly has been established in the Northern Territory for a considerable period of time, at least since 1964. There are now some grounds for suspecting that the strain present in Australia may be distinct and less damaging than that in Hawaii where fruit fly has caused serious problems.

The exercise has had useful dividends. The fruit fly situation in the Northern Territory has been surveyed extensively for the first time. In addition, considerable

experience has been gained in handling a suspected exotic insect pest, and the stimulus has been provided for a sustained surveillance across northern Australia for the appearance of exotic pest species.

Plant Protection Committee meeting

The Tenth Session of the Plant Protection Committee for South-East Asia and the Pacific Region was held in Canberra from 9 to 16 February this year. Thirty delegates from ten countries attended the meeting, together with four observers from two countries.

The Assistant Director-General, Plant Quarantine Branch, Mr J. R. Morschel, was elected chairman and Dr Reddy, from FAO in Bangkok, acted as secretary. Dr Chock from FAO, Rome, represented the Food and Agriculture Organisation.

Two Australian delegates—Mr A. Seberry, Assistant Principal Horticulturist, N.S.W. Department of Agriculture, and Mr P. T. Jenkins, Principal Plant Pathologist, Victorian Plant Research Institute—presented invited papers. Overseas delegates undertook a two-day survey of the Murrumbidgee Irrigation Area during the latter part of the Session.

Use of ethylene oxide

Plant quarantine relies on fumigation for the eradication of insects and, to an extent, for devitalising restricted seeds.

Recent studies undertaken at the Department's Plant Quarantine Research Station in Canberra have shown that ethylene oxide, with its excellent biocidal and penetrating properties, has some unique applications and in certain areas is more efficient than methyl bromide which is normally used. Experiments showed that ethylene oxide had good wood and termite nest penetration and activity against termites, wood-borers and flour beetles. The use of ethylene oxide under vacuum effectively devitalized a range of seeds, and wider applications in this area are anticipated.

Another recent study showed that ethylene oxide is particularly effective against seed-borne bacterial diseases for which there is no alternative treatment. Departmental officers also investigated the use of ethylene oxide and methyl bromide to eliminate root-knot nematodes on host plants. Their findings present some very important control methods.

Committees and Sub-Committees

The annual conference of Chief Quarantine Officers (Plants) was held at the Plant Quarantine Research Station in August 1975. The major item was a full discussion on the proposed importation of apples from Canada, and the general consensus was that pathologists were not prepared to accept the research findings concerning the bactericidal treatment using acetic acid.

The Interstate Quarantine Sub-Committee met at the same time to discuss technical problems of interstate quarantine.

The Fruit Variety Foundation Sub-Committee met in Sydney to finalise plans for the establishment of the third and final unit in Tasmania for apples and pears. In Victoria 96 clones of grape vines have been established in the fvf block. Thirty-nine accepted stone fruit clones are already planted at Burnley, others are being established at Rydalmere, and the citrus fvf block at Dareton is expected to be ready for planting in 1977.

Potato cyst nematode

The cyst nematode of potato is the most important pest of potatoes in the world. It can reduce production by 50 per cent and the cysts can remain viable for 15 to 20 years.

The nematode has yet to be discovered in Australia. However, it was detected in New Zealand in 1973 in the Pukekohe area south of Auckland and more recently near Christchurch.

In the event of an outbreak in Australia, Mr G. Khair, a nematologist at the Plant Quarantine Research Station, would be in the forefront of any action initiated. To study new techniques in treating the pest, Mr Khair spent two weeks in New Zealand at the Pukekohe special research station of the Department of Scientific and Industrial Research.

Publicity

The Plant Quarantine Publicity Campaign continued into its 25th year. Displays at Royal Agriculture Shows in capital cities are still one of the principal mediums of information for the campaign. The displays are constantly changed and without exception are welcomed by Royal Show committees and are well patronised by the public.

At the 1976 Sydney Royal Easter Show, the exhibit featured a simple, yet effective heat therapy cabinet designed by staff at its Plant Quarantine Research Station for eliminating virus diseases from imported plants.

Therapeutics Division

Pharmaceutical Benefits

The cost of the Pharmaceutical Benefits Scheme rose again during the year. A significant component in the upward movement was the increase in chemists' dispensing fees approved by the Government in July 1975. The increase of 11 cents per prescription for prescriptions dispensed during 1973-74 and 22 cents per prescription for those dispensed subsequent to 1 July 1974, added $51.0 million to the cost of the scheme, including $29 million in respect of prescriptions dispensed during 1973-74 and 1974-75.

Cost of the scheme

The total cost of the Pharmaceutical Benefits Scheme in 1975-76, including the patients' contribution on prescriptions supplied to persons other than pensioners and their dependants was $379.1 million. This was $50.0 million or 15.2 per cent higher than in 1974-75.

Movement in costs occurred as follows:

	Increase in 1974-75 over 1973-74 $'000	*Increase in 1975-76 over 1974-75 $'000*
General Expenditure		
Prescription benefits available to the general public	23 275	17 692
Benefits provided in public hospitals and through miscellaneous services	6 942	−22 878
Pensioner Pharmaceutical services	13 784	26 730
Total increased Government expenditure	44 001	21 544
Patient contribution on prescriptions supplied to the general public	7 813	28 417
Total increased costs	51 814	49 961

General pharmaceutical benefits

The cost of pharmaceutical benefit drugs supplied to people other than pensioners and their dependants in 1975-76 was $244.3 million including the patients' contributions. This represented an increase of $46.1 million or 23.3 per cent over the previous year, but included retrospective adjustments amounting to $19.9 million relating to prescriptions dispensed during 1973-74 and 1974-75.

A total of 67.7 million prescriptions was processed for payment—0.4 million or 0.6 per cent more than in 1974-75.

Patient contribution was raised twice during the year, from $1.00 to $1.50 on 1 September 1975 and then to $2.00 on 1 March 1976. As a result of these increases the patient contribution component of the general benefit drug cost rose from $66.8 million in 1974-75 to $95.2 million this year.

Details of the more significant movements in prescribing of general benefits within the major therapeutic drug groups are shown in the following table:

GENERAL PHARMACEUTICAL PRESCRIPTION BENEFITS

Table of Drug Usage—Selected Groups, Ready-Prepared Items.

	1975-76		*Increase over 1974-75*			
Drug Group	*Cost $'000*	*Prescription Volume '000*	*Cost $'000*	*%*	*Prescription Volume '000*	*%*
Drugs acting on the cardiovascular system	23 143	3 953	+4 856	+26.6	+414	+11.7
Diuretics	13 094	3 577	+2 368	+22.1	+480	+15.5
Anovulants	15 923	5 833	+1 969	+14.1	+135	+ 2.4
Sulphonamides	8 343	2 493	+2 560	+44.3	+642	+34.7
Analgesics	16 633	5 370	+2 935	+21.4	+285	+ 5.6
Tranquillisers	9 322	3 580	+ 31	+ 0.3	−452	−11.2
Anti-depressants	6 385	2 367	+ 750	+13.3	+ 76	+ 3.3
Preparations for broncho spasms	17 156	3 589	+3 616	+26.7	+441	+14.0

Pensioner pharmaceutical benefits

The cost of supplying pharmaceutical benefits to pensioners and their dependants in 1975-76 was $107.3 million, including $9.1 million retrospective adjustments of dispensing fees relating to prescriptions dispensed in 1973-74 and 1974-75. This was an increase of $26.7 million or 33.2 per cent, over 1975-76.

A total of 33.4 million prescriptions was processed for payment, which was 3.1 million or 10.1 per cent more than in 1974-75.

Increased dispensing fees and movement towards the prescribing of more expensive drugs combined to raise the average cost per benefit prescription from $2.56 in 1974-75 to $3.00 this year.

Major factors contributing to increased expenditure on pensioner benefits and amounts relating to each factor are assessed below:

	$'000
Increase in number of persons eligible	3 200
Increase in dispensing fees	16 400
Increased utilisation	4 700

Movements in prescribing and cost with major therapeutic drug groups are shown in the following table:

PENSIONER PHARMACEUTICAL PRESCRIPTION BENEFITS

Table of Drug Usage—Selected Groups, Ready-Prepared Items.

	1975-76		*Increase over 1974-75*			
Drug Group	*Cost $'000*	*Prescription Volume '000*	*Cost $'000*	*%*	*Prescription Volume '000*	*%*
Analgesics	12 977	4 854	+3 127	+31.7	+548	+12.7
Drugs acting on the cardiovascular system	14 352	3 134	+3 585	+33.3	+373	+13.5
Diuretics	10 722	2 698	+2 265	+26.8	+451	+20.1
Preparations for broncho spasm	4 318	1 146	+1 254	+40.9	+215	+23.1
Tranquillisers	5 898	2 183	+ 684	+13.1	+ 33	+ 1.5
Sulphonamides	1 406	410	+ 470	+50.2	+101	+32.7
Hypnotics and sedatives	4 536	2 743	+ 983	+27.7	+ 47	+ 1.7
Anti-depressants	3 255	1 274	+ 607	+22.9	+134	+11.8

Public hospitals and miscellaneous services

Expenditure in 1975-76 on pharmaceutical benefits supplied in public hospitals and through miscellaneous services such as the Royal Flying Doctor Service and Bush Nursing Centres was $27.5 million, compared with $50.4 million in 1974-75. The reduction of $22.9 million follows transfer of responsibility for public hospital drug costs to Medibank. Under the National Health Act the Department of Health will continue to meet only the cost of pharmaceutical benefit drugs supplied in State mental hospitals and aged persons homes controlled by State authorities.

Expenditure on fluids supplied for the treatment of patients on home dialysis rose from $237 000 in 1974-75 to $340 000. There were approximately 250 patients undergoing treatment in this manner at 30 June 1976.

Changes in listings

On the recommendation of the Pharmaceutical Benefits Advisory Committee, 12 new items were listed as pharmaceutical benefits during 1975-76. Significant among the additions were the M.A.O.I. anti-depressant drugs phenelzine (Nardil) and tranylcypromine (Parnate), and the anti-spasticity drug baclofen (Lioresal). In addition, 21 new forms and strengths of existing benefits were added to the benefits list.

During the year 78 items and 58 forms and/or strengths of items were deleted from the list of ready-prepared benefits. Some were deleted on 1 April 1976 as part of the Government's program to reduce Commonwealth expenditure. These deletions included the sustained-release antihistamine preparations, synthetic anticholinergic/anti-spasmodic drugs, and certain coronary vasodilator preparations.

Restrictions were placed on the availability of a number of other benefit items to discourage excessive or inappropriate usage. Restrictions which applied to the availability of ampicillin, amoxycillin and epicillin preparations as benefits were removed.

Provision was made for an increase in the number of repeats which may be prescribed in respect of 87 benefit items, including the 'half strength' corticosteroid creams and ointments used in the treatment of a wide range of dermatological conditions.

Price negotiations

During the year the pharmaceutical industry, in common with other areas of manufacturing industry, experienced continuing increases in costs, particularly of labour and finishing materials. As a result, the Department continued to receive an increasing number of applications for price increases for pharmaceutical benefit items.

A high level of inflation and general cost pressures on industry have limited opportunity for negotiations to achieve price reductions. Nevertheless, constant scrutiny of local and overseas drug prices enabled the Department to limit price increases and achieve some savings by price reductions.

It is estimated that increases granted during the year will increase expenditure for a 12 month period by $7.93 million while reductions negotiated will give savings of $0.58 million in the first year.

Most manufacturers are now regularly providing confidential information which reflects the movements in costs of their products listed as benefits. This information assists the Department in its assessment of fair and reasonable prices for pharmaceutical benefit items.

Offences

The Pharmaceutical Services State Committees of Inquiry considered 36 references concerning the service or conduct of pharmacists approved to supply pharmaceutical benefits. The majority of references related to the alleged supply of benefits which failed to meet the required standards of dispensing. However, some were concerned with alleged breaches of the National Health Act and the relevant Regulations.

As a result of the Committee's recommendations, 12 chemists were warned to exercise more care in dispensing and 17 were given Ministerial reprimands, six of which were published in the Government Gazette. The approvals of three chemists to supply pharmaceutical benefits were suspended for periods of up to three months.

In the remaining four cases finalised during the year no further action was taken. Fourteen cases remained unresolved at 30 June 1976 as compared with seven cases carried over from 1974-75.

During the year the Medical Services Committees of Inquiry considered seven references for alleged offences by doctors relating to pharmaceutical benefits. Two cases unresolved in 1974-75 were finalised. Following the Committee's recommendations $3882.40 was recovered, and six doctors received Ministerial reprimands. One case remained unresolved at 30 June 1976.

Court proceedings were finalised in connection with one chemist and one doctor who were convicted of offences under the National Health Act.

Administration

To supervise the operation of the Pharmaceutical Benefits Scheme the Branch is divided into six Sections—Secretariat and Listings, Ministerial, Information, Policy, Publications and Services, and Operations.

The Secretariat and Listings Section continued to provide the secretariat for, and implement recommendations of, the Pharmaceutical Benefits Advisory Committee and committees associated with the Human Pituitary Hormone Scheme. During the year the Section serviced three meetings of the Pharmaceutical Benefits Advisory Committee and eight meetings of the Human Pituitary Advisory Committee and its sub-committees.

The Section also serviced a meeting of the Influenza Vaccine Committee and a number of meetings which the Pharmaceutical Benefits Advisory Committee had with representatives of medical colleges and societies.

The Drug Prices Sub-section had a busy year because of the continued large number of applications by drug manufacturers for price increases.

The volume of correspondence handled by the Ministerial Section increased substantially, while the Information Section recorded an increase in the number of requests from inside and outside the Department for information on the benefits scheme.

The review of aspects of the Scheme by the Policy Section was curtailed because of staff shortage and the deployment of staff to assist in the administration of the Stoma and Home Dialysis Appliances Schemes. The Publications and Services Section maintained a regular flow of pharmaceutical benefit publications and doctors' prescription forms. There were several changes to the format of publications distributed.

The Operations Section was established in December 1975, absorbing the functions previously conducted by the Liaison Section. Its role is to co-ordinate operational activities of the Pharmaceutical Benefits Scheme.

Aids and appliances

The scheme to provide colostomy and ileostomy equipment to all who need it has been implemented and is functioning well with the co-operation of all Colostomy and Ileostomy Associations in Australia.

The Home Dialysis Scheme which provides for the supply and installation of dialysis machines and ancillary equipment free of charge to those who need them has been fully implemented following agreement with the State health authorities. The full cost of the scheme, which is operated through renal transplant units of public hospitals, is borne by the Commonwealth.

Therapeutic Goods

The main functions of the Therapeutic Goods Branch are to control the importation of therapeutic goods into Australia under the provisions of the Customs (Prohibited Imports) Regulations and to exercise surveillance over the standard of certain locally manufactured therapeutic goods. This latter function is carried out in conjunction with the National Biological Standards Laboratory.

A new regulation to the Customs (Prohibited Imports) Regulations became effective on 12 May 1976 prohibiting the importation of certain goods specified in the Eighth Schedule to the Regulations without the consent of the Director-General of Health or an officer authorised by him. The new regulation rationalises the administrative procedures relating to the importation of those goods for which application previously had to be made to the Bureau of Customs. The most significant change relates to goods which purport to produce a therapeutic effect by electric, ultrasonic or magnetic influences or by the presence of radio-active elements. Application for these and other goods listed in the Eighth Schedule are now to be made to the Assistant Director-General, Therapeutic Goods Branch.

Australian Drug Evaluation Committee

A total of 150 resolutions concerning the safe and efficacious use of drugs were made by the Australian Drug Evaluation Committee after consideration of various aspects

of new and previously marketed therapeutic substances. During the year the Committee considered applications for approval for general marketing of 69 new drugs. It considered seven applications for approval to extend the indications for use for products already available. This was an increase of 39 over the previous year. Of these, 48 new drugs were approved—40 of them on first presentation and eight after further consideration. Eleven applications were rejected and ten deferred pending the provision of extra data in respect of safety and/or efficacy. Of the seven applications to extend the indications, four were approved and three rejected. Most applications for approval to conduct clinical trials with new therapeutic substances are dealt with by the Department. However, on four occasions the Committee considered specific applications with which queries or problems had arisen. It also considered eight items referred for advice by the Pharmaceutical Benefits Advisory Committee.

The Committee reviewed the safety and efficacy of a number of substances which have been marketed in Australia for a number of years. As a result, amendments were made to claims or warnings for specific products such as spironolactone, human chorionic gonadotrophin and the copper 7 intra uterine device or groups of products such as aerosol inhalers containing fluorocarbon propellants.

Throughout the year the Committee became increasingly aware of its responsibility to the medical profession for the dissemination of information to ensure the safe and efficacious use of therapeutic substances, particularly new drugs. For example, a statement by the Chairman on the limited indications for use of, and possible hazards associated with, the skeletal muscle relaxant baclofen was released and published in the *A.M.A. Gazette* prior to release of the drug for marketing. The Committee also recommended that the *Australian Prescriber* commission and publish articles on specific drugs or groups of drugs where problems have arisen. A paper on procedures for use of therapeutic goods in parenteral nutrition was prepared by a member of the Parenteral Nutrition Sub-committee of the A.D.E.C. and submitted for publication.

At work on production of an issue of the new journal, Australian Prescriber, *are, from left, Secretary, Mr E. Maculan, Editor, Dr R. L. Hodge, A.G.P.S. Designer, Linda Turner and Journalist, Mr D. Blewett.* Australian Prescriber, *'aunched by the Department during the year, aims at encouraging better prescribing by medical practitioners. It presents balanced, impartial information by leading authorities on drug and non-drug therapy.*

The Committee noted that two working parties had been considering the formation of a drug data bank and the development of a nation-wide drug information service. The Committee felt that it would be appropriate for it to supervise the major input into any such drug information service. In this way the medical profession would be able to rely on the information provided as being authoritative, objective and comprehensive. Any policies developed by the Australian Drug Evaluation Committee in relation to the safety and efficacy of drugs could be implemented through the provision of information in this nationwide service. There would be no problem about the involvement of the A.D.E.C. in new drugs since it now sees all the profiles accompanying new drugs going on the market. However, it was considered important that common policy and practices be implemented for old drugs which in the future would be covered in the form of drug profiles generated mainly by the drug industry but evaluated and supplemented by the Drug Evaluation Section in the Department. If the A.D.E.C. is to have a watching brief on this large and important body of information on old drugs, these activities must also be under the wing of the A.D.E.C. The safety and efficacy of old drugs are firmly included in the charter of the A.D.E.C., but because of the lack of resources the Committee has so far not been able to tackle this problem, although there have been many discussions concerning possible mechanisms. It now appears that the generation of drug profiles on old drugs will be the most likely practicable solution. It is anticipated that the establishment of a nationwide drug information service will result in a two-way passage of information. It is hoped that communication channels will encourage an increased reporting of adverse reactions and general experience of drug usage after marketing. Evaluation and incorporation of this data should also be a responsibility of the A.D.E.C. It has therefore been proposed that, if a national drug information service is established, the A.D.E.C. should establish an advisory sub-committee to oversee and evaluate such a service.

In view of the potential hazards with the use of cytotoxic agents and the fact that very often little is known about new cytotoxics at the time of application, the Committee felt that a special method of dealing with such applications should be applied. An *ad hoc* sub-committee has been established to investigate the problems associated with the use of new cytotoxic agents and to draw up guidelines for their use. The sub-committee includes a physician, an oncologist, a haematologist, a person experienced in the evaluation of anti-cancer drugs and an immunologist.

The Parenteral Nutrition Sub-committee is drawing up new guidelines for the type of data required for parenteral nutrients. When finalised, these requirements will be discussed with the pharmaceutical industry before being incorporated in the NDF 4 *Guidelines for Preparing Applications for the Clinical Investigational Use or General Marketing of a Therapeutic Substance.*

Because of the considerable backlog of applications for marketing approval submitted to the Department and the general policy of evaluating such applications in order of receipt, the Committee was concerned that time would be spent evaluating some drugs which may add nothing to the therapeutic armamentarium at the expense of important new substances. In order to make best use of the resources of the Drug Evaluation Section of the Department, the Committee has begun to examine all outstanding and new applications and to allocate priorities. To help this process, all companies have been requested to provide a short summary setting out any special circumstances they wish to be taken into consideration and information on which a judgment can be based.

During 1975, a number of reports were received which suggested that the incidence of complicated pregnancies associated with the Dalkon Shield intra uterine device might be increasing. There are connotations beyond strict adverse effects and efficacy in such a matter, which are outside the terms of reference of the Committee. Also,

factors such as patient acceptability and social aspects are of importance. For this reason, a joint working party was set up with the National Health and Medical Research Council to investigate the efficacy, acceptability and complication rate of all intra uterine devices. The Dalkon Shield has since been removed from the market in Australia. The findings of the working party have yet to be discussed by the Committee.

Adverse Drug Reactions Advisory Committee

The Adverse Drug Reactions Advisory Committee has increased its contact with other national centres which have an interest in monitoring adverse drug reactions. It continued to develop its automatic data processing systems for handling reports from medical practitioners, dentists, pharmacists and manufacturers. It is hoped to proceed with an area monitoring project and publication of a compendium of suspected adverse drug reactions in the next financial year.

The Committee's secretariat also started a pilot adverse drug reaction surveillance program to supplement the area monitoring project. The trial began in May 1976 and will run for 100 days. It is designed to record suspected adverse drug reactions detected within the two major Canberra hospitals and within two community health centres which incorporate a pharmacy. Most of the studies in this field have been undertaken with hospital in-patients. The survey results will help to determine how those hospital findings relate to the general population. Data from the survey should be available in October 1976.

The Committee scrutinised its policy on the release of information about adverse drug reactions. The result is that there will be more disclosure of information held in the Australian Registry of Adverse Reactions to Drugs. However, confidentiality of identity of individuals or organisations who contribute will be firmly adhered to as in the past. The services offered to contributors have been expanded in keeping with this development in policy. Contributors, particularly the drug manufacturers to whom the service is directed, may now obtain a computer printout which summarises each report individually. The material will be available quarterly. Each report is listed against a grading allocated by the Committee according to the likelihood that the described episode was related to drug therapy.

The Committee's responsibility has for a long time been considered to begin only when a drug has been released for general marketing. This policy has now been changed and the Committee now scrutinises reports of reactions to drugs undergoing clinical trial.

Among the major problems discussed by the Committee during the year were chloramphenicol sodium succinate and deafness, beta-adrenergic receptor blocking agents and the 'practolol syndrome', and oral contraceptives and myocardial infarction.

Reports from Western Australia implicated chloramphenicol sodium succinate in cases of deafness in animals where the topically applied antibiotic had been able to penetrate to the middle ear after perforation of the tympanic membrane. Suspicion was also cast on propylene glycol, the supposedly inert carrying agent, as studies indicate that this substance is also capable of causing deafness. Reports have been received linking chloramphenicol-containing eye drops with aplastic anaemia. Chloramphenicol is well known for its propensity for inducing aplastic anaemia. This, combined with the danger of topical preparations of the antibiotic, led to discussion of the further restriction of its availability. No decision has been reached yet.

Practolol was withdrawn from use in October 1975, following reports of psoriasiform rash, conjunctivitis (sometimes with corneal ulceration), serious otitis media, and plastic peritonitis in patients who had been taking this drug. Other drugs of this class were said at the time to be free from similar side effects. However, reports from

medical practitioners increasingly indicated that the remaining beta-blockers were responsible for side effects very like those attributed to practolol. The reports were difficult to evaluate because the terms in which they were described were clearly influenced by descriptions of the 'practolol syndrome'. The situation is still not clear. Medical practitioners were accordingly asked, in the Committee's report for 1974, to help by routinely examining patients for these symptoms both before the drugs were prescribed and regularly during protracted therapy.

Last year also saw extensive publicity given overseas to various effects said to be caused by oral contraceptives. The most significant of these was the claim of an increased risk of myocardial infarction in older women who were using this form of contraception. The United States Food and Drug Administration announced that it had made provision for the prescribing information for oral contraceptives to include a warning on the increased risk of myocardial infarction in patients over forty. Investigation by the Committee of the various studies suggested that the evidence for such an association was insufficient to warrant any action at present, except to draw further attention to the findings in the Australian prescribing information. Fairly extensive publicity had already been given to the results of the two major studies. The Committee also reviewed the effects on young women of these hormonal agents, particularly in relation to their teratogenic potential and formation of hepatic adenoma. These problems have become more pronounced with time, as more cases of hepatic adenoma are discovered in young women taking oral contraceptives and more cases of adenocarcinoma of the vagina in children exposed to diethylstilboestrol *in utero* are reported.

A new Chairman was appointed in December 1975, when Dr T. I. Robertson retired from the position after five years. His successor, Dr M. L. Mashford, is Reader in Clinical Pharmacology at the University of Melbourne, and has been a member of the Committee since its establishment in 1970. He is also a member of the Australian Drug Evaluation Committee. A new member was appointed in June 1976 to fill the vacancy created by the resignation of the Chairman. He is Dr J. Robilliard, haematologist at St George Hospital, New South Wales. The Secretaryship of the Committee also became vacant last year and Dr H. G. Dickson was appointed to the position in January 1976. Dr Dickson is a graduate of the University of Queensland and has special interests in public health.

Congenital Abnormalities Sub-Committee

After a recess of 18 months, the Congenital Abnormalities Sub-committee has recommenced regular meetings.

A paper on the detection and prevention of intra-uterine infection was prepared for publication in the scientific journals, as was a letter warning medical practitioners again of the possible teratogenic effects of hormonal preparations administered during early pregnancy.

A report was presented to the Australian Drug Evaluation Committee concerning the hypothesis that diazepam was associated with an increased incidence of clefts of the lip and palate. The Committee reviewed data from the New South Wales and Victorian obstetric teaching hospitals, as well as overseas literature, and concluded that acceptance or refutation of the hypothesis should be deferred till further data were available. Caution was recommended when the use of this drug in women of child-bearing age was contemplated.

Factors involved in the increased abortion rate among female operating theatre staff were examined, in particular the possible role played by anaesthetic gases and vapours. The Committee thought that the question of the possible teratogenicity and abortifacient action of anaesthetic gases had not been wholly resolved and urged that

studies to clarify this matter be undertaken. It was advised that women at risk should not be exposed to improperly scavenged operating theatre atmospheres.

Screening tests for diseases in the neonate were also discussed. Improvements in diagnostic technology resulted in an improvement in the ability to detect a wide range of diseases in the first few months of life.

The Committee continued to review reports of cases of suspected drug-caused congenital abnormalities referred to it by the Adverse Drug Reactions Advisory Committee.

National Therapeutic Goods Committee

The National Therapeutic Goods Committee finalised details of a modified scheme for the registration of therapeutic goods for consideration by the Australian Health Ministers at their 1976 Conference.

The Committee also recommended to the Ministers the basis of a uniform system of control by the Commonwealth and States over electromedical devices. This includes the concept that controls should cover all electromedical devices and not be restricted to devices that intentionally apply an electric current direct to the body. 'Electromedical devices' are defined as any therapeutic goods which require an electric current for their operation and which are used in the vicinity of the patient.

For several years the Committee has been considering the details of a mandatory scheme for the supplementary labelling of therapeutic goods. This scheme provides for the immediate containers of certain therapeutic goods for human use, purchased by the public or supplied to them on prescription, to be labelled with a clear statement of any major hazards that may be associated with their use, together with any other warnings considered necessary. They will also be required to be labelled with adequate directions for administration.

In the meantime, the Committee encouraged a similar scheme for prescription items, initially on a trial basis by the Pharmaceutical Society of South Australia and later by the other State Societies. The Committee kept a close watch on developments overseas of child resistant packaging, and the development by the Standards Association of Australia of an Australian Standard for Performance Testing of Child Resistant Closures, Reclosable Containers and Non-reclosable Unit Packs for Therapeutic Substances. The Committee referred the above standard to the Therapeutic Goods Standards Committee for consideration, in the hope that it may be adopted as a legal standard under the provisions of Commonwealth and State legislation.

Administration Section

The Administration Section provides the clerical/administrative back-up to the specialist sections, Drug Evaluation, Therapeutic Goods Control and Health Advertising.

Two units—New Drugs/Drug Information Service and Imports/Sampling/Drug Recall—were established during the year to provide a better service for a new scheme for evaluating applications for clinical trials in 60 working days.

The General Services unit of the Section was involved in the new publication *Australian Prescriber* and the servicing of the Australian Drug Evaluation Committee and the National Therapeutic Goods Committee and their various sub-committees.

There were more than twice the number of searches undertaken by the Drug Information Service during the year, compared with 1974-75. These searches provide a back-up to the drug evaluators by obtaining additional information from published material.

The New Drugs unit was active in processing applications for general marketing, clinical trials and individual patient use. Overall processing times for clinical trials with NDF 4 data, clinical trials with protocol only and individual patient use, were 10.9, 1.0 and 0.3 working days respectively. A trial is to be undertaken as a forerunner to laying down fixed procedures for micro-fiche filming of NDF 4 data.

The major task of the Imports/Sampling unit was the review of imports of therapeutic substances by licensed importers in conjunction with officers from the Therapeutic Goods Control Section. This resulted in the renewal of licenses for a further period of two years. Twenty-six drug recalls were made during the year and 57 complaints were received in relation to therapeutic substances.

There has been a substantial increase in the number of applications for the importation of biologicals and the importation by private individuals of therapeutic substances for their personal use. This has caused some delays in the issue of permits but every endeavour is being made to keep these to a minimum.

Health Advertising

The Health Advertising Section is responsible for the prior censorship and approval of advertisements for medicines and other therapeutic goods on radio and television, under the provisions of the Broadcasting and Television Act.

On 1 September 1975, expanded Requirements for Advertising of Therapeutic Goods were adopted as a basis for consideration of radio and television scripts for therapeutic goods. These requirements originated from a recommedation of the National Therapeutic Goods Committee. The introduction of the new requirements has presented few problems, despite predictions that they would cause difficulties and hardship to the industry.

The Section has recently taken over responsibility for examining revised promotional literature submitted for approval by the drug companies.

Drug Evaluation

The Drug Evaluation Section has been in operation for two years and many of its initial problems have been overcome. However, because of the difficulties experienced in recruiting clinical evaluators to Canberra and retaining them, an outpost of the Section has been established in Sydney. Three clinical evaluators are currently working there.

In early 1975 the Department gave an undertaking to the pharmaceutical industry that applications lodged for clinical trials of new drugs, which were accompanied by acceptable NDF 4 data on the drug and details of the trial protocol, would be evaluated in 60 working days. This procedure went into effect on 1 February 1975.

One important innovation has been the holding of a meeting between the medical director of the drug firm, the proposed clinical investigators and Departmental evaluators at the end of the 60-day period. This has had the effect of increasing the understanding of each group for the problems of the others and has provided a rapid and informal mechanism for modifying the proposed trial protocol, and monitoring where necessary.

At the end of 1975, industry was notified that late phase clinical trial applications, particularly those accompanying marketing applications, which appeared merely to duplicate studies presented in the company's submission, would no longer be dealt with under the 60-day scheme. This was done to allow available manpower to concentrate on those applications intending to produce genuinely new data in Australia.

During the year approvals were given for 24 clinical trials supported by NDF 4 data, 283 trials with protocol only (data already being available on the drugs) and 905 individual patient use of specific drugs. This year 19 279 and 899 applications respectively were received.

Evaluation of 69 applications for general marketing were completed during the year while 75 new applications were received. Due to the shortage of Departmental clinical evaluators, the Section again had to rely heavily on external evaluators.

The Section has welcomed the responsible attitude of industry to the NDF 4 guidelines and is very pleased to record that the quality of general marketing applications has vastly improved. This should, in the long term, facilitate and speed the passage of applications through the regulatory requirements.

Work is currently progressing well on the formulation of guidelines for bioavailability, parenteral nutrients and radiopharmaceuticals. The last has been undertaken in conjunction with industry, the Australian Radiation Laboratory and the National Biological Standards Laboratory.

The publication of *Australian Prescriber* became a reality during the year with the start of publications every three months. The early issues have generated considerable interest and more than 38 000 copies of each issue are currently being distributed. Interest has also been shown by readers in a number of overseas countries who have asked to be placed on the regular mailing list.

The Section's Technical Secretariat has continued work on the establishment of a computerised data bank of information concerning drugs, as part of its educational program directed to the medical and allied professions. Liaison on the matter was maintained with the Hospital and Allied Services Advisory Council's Working Party on Drug Information Services.

Drug profiles are being generated on all new drugs and work has begun on drugs already on the market. A number of medical colleges and societies have indicated their interest in vetting those profiles appropriate to their spheres of interest. The pharmaceutical industry has been most co-operative and is assisting with their compilation.

During the year the Section demonstrated in most State capitals the possible usefulness and benefits of computerising drug profiles. Under the system used, it was shown that detailed prescribing information on drugs could be stored in free text and instantaneously retrieved. The system is simple to use and the limitation of keywords and indices is not a problem as in other systems, since any word in the data base can be used to retrieve information.

The flexibility of the system allows other data bases—for example poisons, animal toxicology or general administration information—to be created in addition to drug profiles. The updating or addition of data, no matter how lengthy, can be achieved easily and confidential information can be protected by building in security codes. The required information is displayed on a visual display unit screen and can be printed out in a matter of seconds. On-line facilities could be provided on request to States which had the necessary facilities.

The demonstrations aroused considerable interest and stimulated discussion of the problems and deficiencies in present methods of providing drug information to the medical community.

Drugs of Dependence

Monitoring System

The Drugs of Dependence Monitoring System is now in its seventh year of operation. The system requires weekly reporting by importers, local manufacturers, formulators

and wholesalers of all transactions involving drugs covered by the Single Convention on Narcotic Drugs, 1961 and those listed in Schedule II of the Convention on Psychotropic Substances, 1971.

During 1975, out of approximately 323 000 transactions reported into the system, 24 183 were rejected by the computer. Of these rejects 22 052 were resolved by clerical staff of the Drugs of Dependence Section. In most instances the causes were reporting errors. The remaining computer rejects were satisfactorily resolved by questioning the firms concerned through the appropriate State Health Departments.

Surveys carried out by the Drugs of Dependence Section indicated an increase in methadone consumption, which was brought to the attention of the National Standing Control Committee on Drugs of Dependence. The rise was attributed to an increase in methadone maintenance programs. To discourage the use of tablets and to minimise diversion to illicit sources, a specially formulated oral syrup was made available as a pharmaceutical benefit. The syrup is now used by New South Wales, Victoria, Queensland and Western Australia in official maintenance programs.

To ensure that medical practitioners are aware of the restrictions on the prescribing of methadone for the treatment of drug addiction, an explanatory note has been included in the *Schedule of Benefits for Medical Practitioners*, published by the Department.

National Drug Education Program

The term of office of the second Drug Education Sub-committee of the National Standing Control Committee on Drugs of Dependence, for which the Section provides the Secretariat, lapsed on 28 September 1975. A third Sub-committee was subsequently appointed for a two-year term of office, comprising mostly the members of the previous Sub-committee.

The Drug Education Sub-committee is responsible for the guidelines for the National Drug Education Program, and reviews material for use in the program and stimulates research into drug education. The Australian National University Drug Education Project was supported from January 1971 to December 1975. Of the educational approaches it has been found that group-led study is generally more effective in limiting girls' recruitment to drug use, while the individual study approach is more effective for boys.

A survey of the usefulness of the Technical Information Bulletin, a National Drug Information Service publication, was conducted among a sample of 650 of its readers. Over 90 per cent indicated they wished to continue receiving the Bulletin. Approximately seven issues of the Bulletin are produced annually.

Funds allocated to the National Standing Control Committee for the National Drug Education Program by Commonwealth/State bodies totalled $750 000 for 1975-76.

Local manufacture of narcotic drugs

Powers to exercise control over manufacture of narcotic drugs under the *Narcotic Drugs Act* 1967 have been delegated to the Director-General of Health by the Comptroller-General of Customs.

Two companies are licensed to manufacture basic narcotic alkaloids in Australia and a third is at present building a morphine extraction plant in Tasmania, to supply morphine for local and overseas codeine manufacture. The two existing manufacturers both produce codeine for local and overseas markets. In the past three years local consumption of codeine has dropped by 18 per cent but has been balanced by an

increase in exports to meet the continuing world shortage of morphine and codeine. In determining manufacturing quotas the Department is careful to ensure that the levels do not exceed legitimate local and export requirements.

U.N. Commission on Narcotic Drugs

Australia was represented at the recently convened Fourth Special Session in Geneva of the United Nations Commission on Narcotic Drugs, in February 1976. At the meeting, members were urged once again to consider the prohibition of the use of heroin in medical practice. In Australia, heroin has been a totally prohibited import since 1954.

Local cultivation of the oil poppy

The major source of raw material for the manufacture of codeine in Australia is the oil poppy (papaver somniferum) which is cultivated by farmers in Tasmania under contract to the manufacturers. Morphine is extracted from the dried capsule of the poppy. The farmers are licensed by the Tasmanian Government and the overall acreage permitted to be cultivated is governed by manufacturing quotas. The Department is represented on the Tasmanian Poppy Advisory and Control Board. For reasons of security cultivation of the poppy is confined to Tasmania.

Public Health Division

Aboriginal Health

The Aboriginal Health Branch continued to provide an advisory service to Commonwealth and State Government authorities on all matters affecting the health of Aborigines. A major achievement was the launching with the College of Ophthalmologists, State Health Authorities, Department of Aboriginal Affairs and Aboriginal groups of the National Trachoma and Eye Health Program.

Government policy, within the limits of available finances, supports health programs aimed at developing Aboriginal self-sufficiency and encouraging initiatives that Aborigines themselves believe will enhance their dignity, self-respect and self-reliance.

In recognising land rights, the Government aims to ensure that appropriate health, and health-related matters such as adequate housing and education services are provided and employment opportunities encouraged for Aboriginal people living on or near their lands.

National objective

A national approach for the upgrading of Aboriginal health was approved in April 1973 by the then Minister for Health. The aim was to raise Aboriginal health standards to the level enjoyed by their fellow Australians.

The States and Territories have received substantial funds from the Commonwealth Government in a bid to improve the quality, range and distribution of health services. In this regard, emphasis is being directed towards the further development of Aboriginal health education programs to meet the special needs of Aboriginal people in the States and Northern Territory, as a preventive health care measure.

During the year estimated Commonwealth Government expenditure on Aboriginal health totalled $21.6 million, an increase of $6.5 million over the previous year.

Availability of Aboriginal health statistics

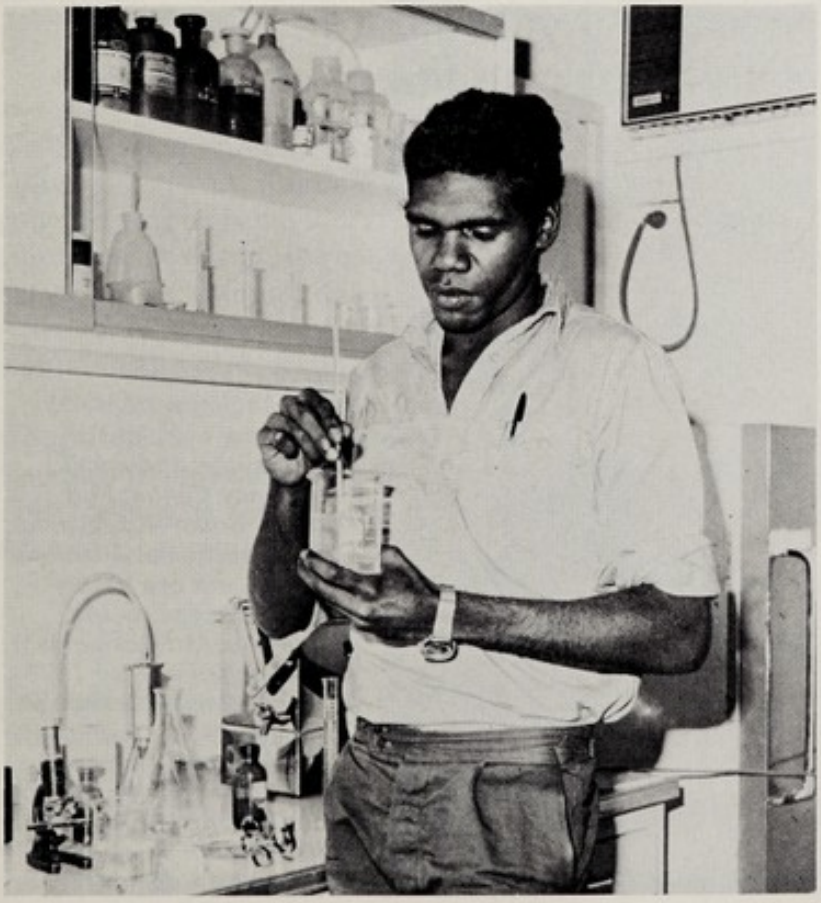
The Department is concerned about the serious lack of comprehensive national statistics on Aboriginal health. The need for up-to-date statistical information is essential for the planning, implementation and evaluation of health care delivery in centres of Aboriginal population. The main need is for legislative changes to alter notification forms, which in most cases are presented under the Registration Acts, but parallel action will also have to be taken to have Aboriginal figures distinguished.

This situation has been reviewed with assistance from the National Population Inquiry. It has been found that Western Australia and Queensland, the States with the largest Aboriginal populations, are making significant progress in the development of information collection systems on Aboriginal health. The Northern Territory Division of this Department also publishes up-to-date figures on Aboriginal hospital and infant mortality statistics. This is largely responsible for public awareness of, and interest in, the problem.

These systems are being further developed by health resource personnel including Aboriginal health workers, as distinct from the normal statistical resources.

Aboriginal medical services

The Government continued to fund medical services managed and run by Aboriginal organisations in centres of Aboriginal population. The services in Townsville, Brisbane, Sydney, Bairnsdale, Melbourne and Perth provide a much needed general practitioner 'shop-front' type service for urban Aborigines. During 1975-76 two new medical services were established at Shepparton and Alice Springs. The service in Alice Springs is managed and run by the Central Australian Aboriginal Congress. The service is making a significant contribution towards alleviating the chronic health problems in the Alice Springs area while emphasising the importance of preventive



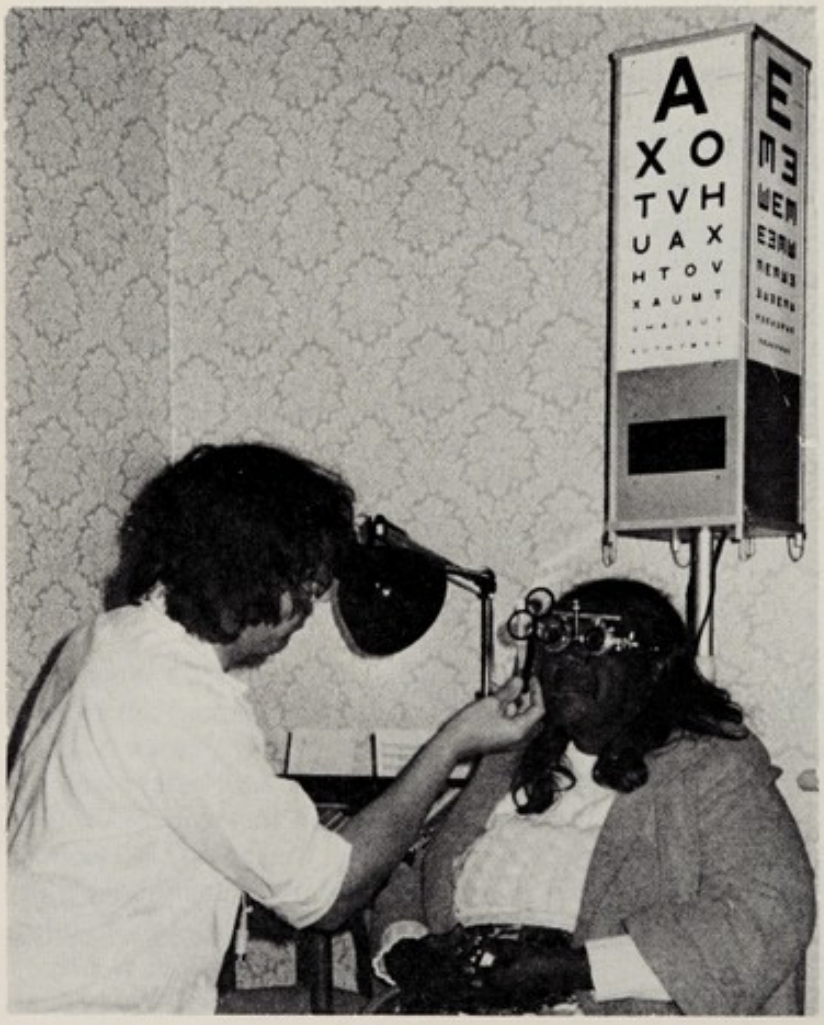
Mr John Wurramarrba at work in a medical laboratory at Groote Eylandt, Northern Territory.

medicine as a means of achieving a real improvement in the general health of Aborigines, particularly children. These services aim to complement existing community health facilities in a way acceptable to Aborigines. The existing Aboriginal services have sought further funds to provide additional medical and dental facilities at their established locations and to expand their activities.

In April 1975 a grant of $18 000 was made to the Central Australian Aboriginal Congress for the investigatory phase of a community oriented alternative health model. A report on one community was received in May 1976 and is being examined. The aim of the model is the re-establishment of a healthy way of living for Central Australian Aborigines in accord with the wishes of Aborigines and the preservation of their heritage. At present, most Central Australian Aborigines live under very depressed economic and social conditions and unless these conditions are improved, little progress in the upgrading of Aboriginal health can be achieved.

National trachoma and eye health program

The Australian College of Ophthalmologists with the support of Commonwealth and State Governments and the National Aboriginal Consultative Committee is making a co-operative effort to enable a team from the College to treat trachoma (sandy blight) and associated eye disease. The program will be carried out in the various States, particularly in the arid zones where the incidence of active disease is as high as 90 to 100 per cent among children and total blindness up to 36 per cent in some older age groups. The specialist team from the College commenced field work in South Australia in May 1976. Approximately $165 000 was made available in the 1975-76 financial year to launch the program.



Dr Hugh Taylor, an ophthalmologist from Melbourne, examines a patient at the Aboriginal Community Centre, Port Augusta, South Australia, for signs of trachoma. A national trachoma and eye health program, funded by the Commonwealth Government, was launched in May 1976 by the Australian College of Ophthalmologists with the support of the Commonwealth Department of Health, State Governments and the National Aboriginal Consultative Committee.

Report of Aboriginal alcoholism

Because of its concern at the high level of alcohol consumption and uncontrolled drinking in Aboriginal communities, this Department, in conjunction with the Department of Aboriginal Affairs, arranged for a research project on alcoholism and Aborigines to be undertaken. The researchers appointed were the Reverend John Leary, the Reverend Patrick Dodson and Mr Bernard Tipiloura. Mr Tipiloura was subsequently replaced, for family reasons, by Mr Luke Bunduk.

The basic aim of the project was to assess and evaluate the problems of alcoholism and the rehabilitation services currently available for Aborigines. This meant talking to a wide cross-section of Aborigines around Australia living in varying circumstances, locating groups with programs aimed at solving the problem of uncontrolled drinking and contributing factors which are found to aggravate the problem.

The report draws particular attention to the lack of success within existing voluntary institutions and groups who are endeavouring to do something to combat alcoholism among Aborigines. The lack of success was seen to be due largely to a reluctance by Aborigines to participate because of shyness, a feeling of not identifying, not relating, not being understood and even of not being wanted.

It also draws attention to the failure of government aid to reach people in need at the local level and the non-involvement of Aborigines who are in touch with the people suffering from the adverse effects of alcoholism. Any solution of the problem must encompass active participation and involvement of motivated Aborigines, thus enabling them to become responsible and resulting in an enhancement of their dignity and independence. The report says there is a need for positive programs towards the attainment of controlled drinking habits to be established through well adapted educational programs. These programs should be directed towards the entire Aboriginal community and the setting-up of facilities conducive to a sensible attitude to drinking.

The report is being taken into consideration by the Standing Committee on Aboriginal Affairs which is inquiring into alcoholism among Aborigines.

Behavioural health workers

At the invitation of Professor J. E. Cawte, Associate Professor of Psychiatry at the University of New South Wales, a small group of Aborigines and Islanders has undergone training as behavioural health workers in Townsville. This objective is to identify, among other things, the causal factors of excessive drinking and associated behaviour patterns. The training was undertaken by Professor M. Kahn from the University of Arizona, who developed the Papago Indian Psychology Service. He was assisted by a mental health technician, Mr Joseph Henry, who is himself a Papago Indian.

The Department has not only supported this initiative but feels that this is the only group that has been prepared in an organised and formal manner for some kind of penetration into the problems of the excess alcohol taking in Aboriginal communities. This training is seen as the forerunner for similar courses for trainees from other Aboriginal communities.

N.H. & M.R.C. Committee

Following a review of all N.H. & M.R.C. committees in 1975, the Health of Aborigines (Standing) Committee was given the status of a reference committee. The name of the committee has thus been changed to the Health of Aborigines (Reference) Committee. Membership has now been reduced to six people, all of whom have expert knowledge of Aboriginal health problems, and two of whom are representatives from the National Aboriginal Consultative Committee.

To ensure a co-ordinated approach to medical research, a sub-committee considers applications from researchers wishing to carry out projects concerned with Aboriginal health. To date, research projects approved cover diabetes; preventive dentistry; growth retardation; respiratory and intestinal infections; the interaction between malnutrition, immune response and infection; hearing conservation; factors affecting infant mortality and morbidity; the treatment of leprosy; a study of viral gastro-enteritis; and a microbiological and clinical study of eye diseases with particular reference to trachoma. In 1975 approval was given for a clinical and laboratory investigation into the sequelae of streptococcal infections in Aboriginal communities in Queensland.

It is important to disseminate the results of such research so that it can be examined critically by other researchers, Aboriginal health workers and health professionals generally. To date, the Branch has arranged for the publication of six special supplements on Aboriginal health in the *Medical Journal of Australia.*

Environmental Health

During the year under review officers of the Environmental Health Branch investigated and advised on a wide range of public health matters, including the effects of many types of environmental pollution on the health of humans.

Environmental hygiene

The effects on human health of air and water pollution, metallic contamination of the environment and waste disposal was kept under the surveillance of the Environmental Health Committee of the National Health and Medical Research Council. Other topics which continued to be scrutinised included treated timber, ozone in the stratosphere and the unintended occurrence and potential carcinogenicity of chemicals in the environment.

The Section provided the Secretariat for the Environmental Health Committee meeting of September 1975, and for the relevant Sub-committee and working parties of the N.H. & M.R.C. on air pollution control, ambient air quality, disposal of human wastes from caravans and water quality.

Officers attended meetings of the Inter-departmental Committees on Motor Vehicle Emissions of the Australian Transport Advisory Council, the Committee of Advice on Ocean Dumping and on Disposal of Ballast Waters, and also attended a meeting of the Standing Committee to the Australian Fisheries Council to discuss mercury levels in fish.

In July 1975, the Director participated in the International Conference, Environment '75 in Sydney and the Transport Outlook Conference, in Canberra. She also attended interdepartmental meetings at the Departments of Environment, Housing and Community Development and Foreign Affairs, concerning the Environmental Chemicals Group of the Organisation for Economic Co-operation and Development, and the O.E.C.D. Council meeting of June 1976. Evidence was also given to the then House of Representatives Standing Committee on the Packaging of Household Consumer Items.

Three environmental impact statements were prepared and the public health segment of the Ranger Uranium Inquiry was co-ordinated. Six other briefs were prepared for the Department, 12 for other Federal Departments and information on 19 other matters was submitted to the International Health Branch for overseas organisations.

A five-day training course in mosquito identification and vector control, aimed at controlling further outbreaks of encephalitis in the Murray Valley region, was conducted by the Health Department in Mildura in December. One of the Department's resource people for the course, Mrs Margaret Cook, an entomologist with the School of Public Health and Tropical Medicine, Sydney, foreground, joined participants from three States and local municipalities in field-work.

Communicable diseases

The Branch acts as the national agency for the collection and dissemination of statistics on notifiable diseases occurring in Australia. The combined notifications for syphilis and gonorrhoea dropped slightly in 1975. There was a decrease in the number of cases of gonorrhoea notified, except in South Australia, Victoria and the Australian Capital Territory. The number of syphilis notifications received rose from 2185 in 1974 to 2377 in 1975. Notifications increased by 38 per cent in Victoria, 19 per cent in South Australia, 57 per cent in Western Australia and 61 per cent in Northern Territory. However, in New South Wales, notifications fell by 49 per cent from 1974 figures to below the level of notifications received in 1972. The increases could be due partly to more efficient notification methods rather than an increase in the prevalence of the disease.

The drop in notifications for brucellosis from 74 received in 1973 to 41 in 1974 did not continue. Notifications rose in 1975 to seventy-nine. Fewer diphtheria cases were notified in 1975-76 than in any similar period for the past nine years. Ten years ago, however, the figure was even lower and immunisation against this disease must remain a high priority. The number of notifications of infectious hepatitis cases continued to decline. The figure for serum hepatitis is, however, more than double that reported in 1974.

Of the less commonly encountered diseases there were two reported cases each of anthrax and dengue, and one of poliomyelitis (in an unimmunised child whose parents had recently returned from abroad).

During the year considerable background material was prepared for the N.H. & M.R.C. Communicable Diseases Committee. This included data on rubella vaccination, administration of tetanus toxoid, new rabies vaccines, serum hepatitis carriers, brucellosis and Q fever diagnoses, spread of dengue haemorrhagic fever, immunisation schedules for poliomyelitis, diphtheria immunisation, smallpox vaccination and the incidence of malaria.

Since the 1973-74 outbreak of Australian encephalitis the Branch has been continually involved in attempts to minimise further outbreaks.

Prior to the summer of 1975-76 the coincidence of extensive flooding in the Murray Valley region and heavy rains in Northern Australia created ideal breeding conditions for mosquitoes and for the migration of water birds. Mosquito control programs were implemented by Victoria, New South Wales and South Australian health authorities and Commonwealth financial assistance was approved for this purpose.

In December 1975 a successful one-week training course was conducted by the Commonwealth Government in Mildura, Victoria, for health surveyors from the three States involved. Participants were instructed in the latest techniques of vector control, mosquito identification and scientific evaluation of control measures by a Commonwealth Health Department entomological team led by the Branch's medical entomologist.

In October 1975, the N.H. & M.R.C. recommended that an ongoing program of research and control of Australian encephalitis should be initiated. A working party to advise on the co-ordination of research, the development of early systems and on vector control held its first meeting in June 1976.

Export of blood and blood products

The Customs (Prohibited Exports) Regulations, Sixth Schedule, gives the Federal Government power to control the export of human blood, blood products, human organs and tissues—a role carried out by the Environmental Health Branch. The legislation also covers the export of pancreas glands of cattle and pigs, and of serum produced from the blood of bovine animals.

Requests for approval to export are classified into such categories as requests by individuals, organisations or neighbouring countries, and aid to disaster areas. Where possible, annual or period export permits are granted, mainly to Divisional Red Cross Services, university medical research schools and commercial firms involved in manufacture and sale of animal by-products. The importation of beef pancreas glands has never been permitted, and in October 1975 approvals for the export of pork pancreas glands was also discontinued.

Close contact was maintained with officers of the Bureau of Customs and authority was granted to Directors of Health in the Department's Divisional Offices to expedite the release of rare blood donations. During the last 12 months 48 period permits were issued, compared with 27 in 1973-74 and 28 in 1974-75. Ninety individual approvals were also granted.

Constant liaison was maintained with the Australian Red Cross Society and the Commonwealth Serum Laboratories, and the Branch represented the Department on the Red Cross National Blood Transfusion Committee, its executive sub-committee, and on the working party concerned with the future of plasma fractionation.

Food

Re-organisation of the food committees of the N.H. & M.R.C. resulted in a smaller Food Standards Committee of seven members. Close co-operation with States,

Territories, other Commonwealth Departments, industry, consumers and consumer organisations is a key activity of this new committee. This co-operation will ensure the formulation of practical food standards, and the production of good quality food items.

A closer working arrangement was established with State Departments of Health, particularly in regard to food analyses since the abolition of the Food Analysis Sub-committee by the Council in 1975.

The Food Section was involved in panel meetings organised by the Department of Primary Industry, with representatives of industry and State Governments and with food experts. These meetings formulated Australian policy on many international commodity standards being drawn up by the Codex Alimentarius Commission under the FAO/WHO Food Standards Program.

Officers of the Section were responsible for the preparation of briefs and attendances at Codex meetings on food additives and foods for special dietary uses. The Department was represented by the Divisional Head at the Eleventh Codex Alimentarius Commission held in Rome this year.

The 1975 Health Ministers' Conference unanimously agreed that there was an urgent need to develop a model food act and legislation to ensure that uniform food regulations are effectively applied throughout Australia. The decision of the Health Ministers resulted in the formation of a working party which held its first meeting in May 1976.

Food surveys, conducted under the auspices of the N.H. & M.R.C., continued to involve various Branch officers during the year. At its 81st Session in October 1975, Council received the final report of the 1974 'Market Basket Survey', noted a progress statement on the 1975 survey and approved continuation of this important Australia-wide food monitoring project for 1976. The Microbiological Status of 'Take-Away' Foods Survey, which commenced in September 1974, is proceeding satisfactorily and the Food Microbiology Sub-committee of the N.H. & M.R.C. is confident that realistic food standards can be developed from the analytical data coming from this survey.

National Poisons Service

Revision of the *National Poisons Register Manual* progressed markedly during the year. The Manual, which includes information on toxic constituents in many chemical preparations used in everyday life, is intended to provide confidential advice to doctors when treating cases of poisoning.

Replacement pages for letters A to F inclusive of the alphabetical listing of substances and formulations are being distributed. The remainder will be ready for distribution by the end of the year.

The Poisons Service receives reports of poisoning cases in Australia, and the States and Territories obtain monthly printouts of cases reported. For the calendar year 1975, 6093 cases were reported, compared with 5755 in 1973 and 5510 in 1974. The 1975 figure includes 3580 cases in children under the age of five years, of which some 2035 were caused by products of a non-medicinal nature.

Nutrition

The main work of the Nutrition Section continues to be the preparation of nutrition education material, the provision of a nutrition advisory source to institutions and individuals, and the servicing of the Nutrition Committee of the National Health and Medical Research Council.

Nutrition staff spoke at conferences and discussion groups and lectured to trainee nurses and teachers. They also discussed problems of food information in labelling and advertising programs with leaders of food manufacturers and with consumer groups. They contributed to such activities as the N.H. & M.R.C. Market Basket Survey, the surveillance of heavy metals in the food supply and the drafting of food standards.

There has been a steady demand for the booklet *Eat Better for Less* since it was introduced by part-publication in the *Australian Women's Weekly* in May 1975. Other previously prepared publications of the Section continue to be distributed in large numbers. The long-established periodical *Food and Nutrition Notes & Reviews* now has a circulation of 8000 and is recommended reading in senior high schools for home science, science and physical education students.

The inclusion of nutrition (that is, the appreciation of good food) as part of health education is being investigated as a pilot study in one Canberra primary school. An officer of the Section has prepared lists of resource materials and curricula guidelines for classes one and two and for class six. A formal assessment has yet to be made, but both teachers and children are enthusiastic about the project.

Another education project is being undertaken at the Canberra College of Advanced Education, within the College Medical Service. A College display, Living is a Health Hazard, contained a large nutrition component planned and prepared by the Section.

Pesticides and agricultural chemicals

The Toxicology Section continued its close liaison with Government departments and industry concerning pesticides, agricultural chemicals, veterinary drugs and feed additives. The Section represented the Department on the Technical Committee on Agricultural Chemicals, Technical Committee on Veterinary Drugs and the Co-ordinating Committee on Agricultural Chemicals, all of which were convened by the Department of Primary Industry. The Section also was represented on the Poisons Schedule Committee and the Pesticides and Agricultural Chemicals Sub-committee of the N.H. & M.R.C.

Support services

The General Services Section provides administrative and clerical assistance to professional staff. Its major functions are servicing committees, preparing appropriate submissions and correspondence, and controlling the release of vaccines and the export of blood and blood products.

The Technical Secretariat Section comprising a group of chemists, provides technical advice to the Branch and to the relevant N.H. & M.R.C. committee on such matters as environmental hygiene, poisons, pesticides, agricultural chemicals, food additives and food standards. The Section represents the N.H. & M.R.C. on 19 technical committees of the Standards Association of Australia.

Epidemiology

In common with all other health authorities in Australia the Department is working towards rationalisation and co-ordination of health statistics. The Adviser in Epidemiology was a delegate to a conference on this subject arranged in Canberra by the Bureau of Statistics in February 1975. Problems of confidentiality of information were raised at this conference, and the Department is studying this subject closely before making submissions to the Law Reform Commission's inquiry into privacy.

The major statistical activity of the year has related to the international classification of diseases. This classification is revised every ten years under the supervision of the World Health Organisation. The Ninth Revision started in 1965 and finished in 1975 when proposals were considered by an international conference. The classification itself is much expanded from the Eighth Revision, which was a classification of diseases only. The Ninth Revision offers a more detailed classification of diseases, plus additional classifications of procedures in medicine and handicaps and impairments. It will come into effect in 1979. Since the conference the Department has worked with the Australian Bureau of Statistics in an international field trial of proposed major extensions to the classification of cancers to show whether the extensions will serve their intended purpose. Data from the trial are still being analysed by the World Health Organization and the International Agency for Research into Cancer.

Another major co-operative effort has involved the Department and the Australian Society for Microbiology. A working party has examined proposals for a nation-wide microbiological laboratory reporting service to provide laboratories with information on organisms being identified by other laboratories. It is anticipated that it will start in the second half of 1976.

A computerised nation-wide information service on therapeutic substances and poisons is being planned. The Hospital and Allied Services Advisory Council working party expects to report on this proposal later in 1976. The service, which is described more fully in the report of the Therapeutics Division, will substantially increase the Department's ability to disseminate evaluated information on therapeutic substances and poisons.

Dental Health

Development of the Australian School Dental Scheme continued to be the main role of the Dental Health Branch throughout the year. The aim of the Scheme is to develop within each State and Territory of Australia, a comprehensive school dental service offering free dental care to all children under 15 years of age. The initial emphasis is on primary school children. With the co-operation of the States, this work is proceeding rapidly.

Training schools are now functioning in all States and emphasis is being concentrated on the expansion of the dental care program.

Financial arrangements

During the year $24.0 million was contributed by the Commonwealth towards the Scheme. Of this amount $13.4 million was for capital works and equipment and $10.6 million for recurrent costs for training schools and school dental clinics. This compares with a total expenditure of $18.6 million in 1974-75 and $7.5 million in 1973-74. Financial arrangements with the States were reviewed during the latter part of the year.

Training schools

The total annual graduate capacity of Australian dental therapy training schools increased substantially from 242 in 1975 to 390 in 1976. Four training schools were completed during the year. These are at St Kilda in Victoria, Yeronga and Townsville in Queensland, and Shellharbour in New South Wales. A regional dental therapy

The recent addition of first year training facilities completed the Somerton Park School of Dental Therapy in Adelaide. The school has the capacity to graduate 32 dental therapists annually.

training school was also completed at Warwick, Western Australia. For the first time each State now has its own training facilities. Within the Scheme there are 11 training schools for dental therapists with a total annual graduate capacity of 390. There are 110 in New South Wales, 58 in Victoria, 84 in Queensland, 48 in South Australia, 60 in Western Australia and 30 in Tasmania.

School dental clinics

All States are currently expanding their school dental clinic building program. During the year 73 school dental clinics were completed and another 69 were being built. This brings to 175 the number of clinics approved to date under the Scheme. The

Second year dental therapy trainees, aided by dental assistants, treat young patients at the Somerton Park School of Dental Therapy.

number of school dental clinics operating in the Scheme, including those established before the Scheme began is 334. Full details of school dental clinics are shown in the statistical appendix.

New Zealand training scheme

Since 1973, following an agreement between the Australian and New Zealand Governments, 100 students have undertaken dental therapy training in New Zealand. This arrangement will cease when training facilities in Australia are fully developed. Sixty-two students have completed their training including 37 in 1975-76 and the final group is expected to graduate by March 1977. This assistance by New Zealand has been invaluable during the early years of the Scheme.

Personnel

The additional training facilities have substantially increased the number of dental therapists in the service. The number increased from 192 in June 1975 to 341 in June 1976. In 1974-75, 31 dental therapists completed their training in Australia. This compares with 148 in 1975-76. In the same period the number of dentists has increased from 197 to 252.

Three young school girls hold an informal conversation with dental therapist Miss D. Ogden, outside the Inala West School Dental Clinic, Queensland. Dental therapists have been readily accepted as part of the school scene in all States.

In June 1975, 404 dental therapists were being trained in Australia compared to 540 at present, of which 204 are expected to complete their training by June 1977.

Details of personnel are shown in the statistical appendix.

Children treated

The number of children covered by the Scheme increased from 171 776 in the period January to December 1973, to 207 257 in 1974, and 236 141 in 1975. Further details are available in the statistical appendix.

For the year ending December 1976, the number of children treated will have increased substantially, through the entry into the workforce of 187 dental therapy graduates early in 1976. This includes 27 who were trained in New Zealand.

Fluoridation in Australia

The Branch produced *Fluoridation in Australia 1975* listing all cities and towns with artificially fluoridated water supplies. The publication is the first comprehensive document to be produced on this subject. It will be updated annually.

In June 1975, approximately 48 per cent of the Australian population was receiving artificially fluoridated water. This figure is expected to increase to 65 per cent during 1976 when the Melbourne metropolitan water supply is fluoridated.

Clinical evaluation and assessment

The planning of a clinical evaluation program was completed during the year in collaboration with the States and Territories and the Australian Dental Association. These studies, which are being co-ordinated by the Department of Health will be carried out in co-operation with the States and Territories. The studies will provide information on the effectiveness of the School Dental Scheme in improving the dental health of children, and will facilitate long-term planning and assessment of the Scheme.

A number of States and Territories are participating in the project and the data obtained are being processed by the Department's Automatic Data Processing Branch.

Equipment

The States and Territories have agreed that there could be substantial savings if arrangements were made for the bulk supply of certain standard items of equipment.

Specifications for some items of equipment were finalised. Tenders were called by the Office of the Purchasing Commission and arrangements are proceeding for the supply of equipment for evaluation prior to the letting of contracts. Under these arrangements, States will continue to be responsible for the purchasing of equipment in accordance with a contract price negotiated by the Commonwealth Government.

Dental scholarships

During the year, the Commonwealth Government provided 33 scholarships to enable more dentists to work in the School Dental Scheme. Seven scholarship holders graduated and 15 are expected to graduate at the end of the 1976 academic year.

The existing scholarship scheme is to be replaced by a State administered scheme in 1977. The allowances and conditions of the scholarships will be the same as those

applying in the State. The new arrangements will provide for the States to contribute 25 per cent of the cost of scholarships.

Australian Dental Services Advisory Council

The Australian Dental Services Advisory Council was established in 1973 to advise the Minister for Health on all aspects of the School Dental Scheme and to facilitate its development and co-ordination. Membership comprises people from the Commonwealth Government, the States and Territories and the Australian Dental Association.

Because of a lack of funds the Council did not meet during 1975-76, however, arrangements for a meeting in 1976-77 are proceeding.

The Branch was also involved in a wide range of dental health matters including dental fees and compensation, dental health education and services, and the provision of advice to Commonwealth departments and instrumentalities.

Social Health Projects

The alarming escalation in the cost of curative medicine, a problem in many Western countries, underlines the need for effective health education programs in our community. The Health Projects Unit is concerned with health education generally, smoking, alcoholism, venereal disease and family planning. In 1975-76 there was increased activity in social health projects, particularly in the areas of smoking and family planning.

Family planning

During the year there was consolidation of many family planning initiatives commenced in the previous year in co-operation with State Governments and National and State Family Planning Associations.

The Family Planning Association of Western Australia opened new central headquarters and the South Australia Family Planning Association received assistance to extend its premises. New clinics were established at Ipswich and Mt Gravatt in Queensland, and at Morwell in Victoria. The New South Wales Family Planning Association established a new centre in Parramatta to serve the Western Metropolitan Region.

The increasing recognition of family planning as a preventive health measure has emphasised the need for education and training for general practitioners, clinic personnel and community educators.

Continuing grants to the Australian Federation of Family Planning Associations ($250 000) and the Catholic Social Welfare Commission ($125 000), and individual grants to State organisations have assisted the expansion of education and training facilities.

Subjects relating to family planning and sexuality are being introduced into medical school courses. A co-ordinating committee has been established in each State to develop and carry out education programs for general practitioners. The Family Medicine Program, voluntary family planning associations, medical postgraduate committees, the Royal Australian College of General Practitioners and the Royal College of Obstetricians and Gynaecologists are co-operating in these education programs.

It is intended that the work of the Family Planning Section will be broadened to include other aspects of women's health.

An advertising contest conducted by the National Warning Against Smoking during the year drew 27 000 entries from children aged between nine and 14 in all States. Ten winners were selected. They received certificates and a chaperoned trip to the national capital. Among the winning posters was this one, submitted by Sperenza Ettia, nine, of St Kilda, Victoria.

Health education

The inaugural meeting of the Commonwealth and State Directors of Health Education was held during the year.

Many representations were received on the impending ban on cigarette advertising on radio and television. The Government has re-affirmed its decision to implement the ban as from 1 September 1976.

Tobacco companies continue to co-operate in the testing of tar and nicotine content of cigarettes, the results of which are released for the information of the public. This is proving an effective health education measure.

The results of a Children's Anti-Smoking Ad Contest are currently being evaluated and a steady demand continues for posters, stickers and desk cards which carry anti-smoking messages.

Occupational Health

Planning of the proposed occupational health service for Commonwealth employees was completed during the year. However, because of constraints on expenditure, the service could not be implemented.

Work proceeded on the determination of occupational health requirements and recommendations under the Code of General Principles on Occupational Safety and

Health in Australian Government Employment. The Public Service Board will co-ordinate this work. Contributions were made to the development of safety provisions under the Code.

Other occupational health activities included endorsement by the National Health and Medical Research Council of documents on a code of safe practice for the Australian vinyl chloride industry, draft uniform benzine regulations, the development of group occupational health services in the private sector and the occupational health aspects of brucellosis.

The Branch assisted in the planning of group occupational health services for both the public and private sectors in the States.

Women's Health Conference

Some 950 delegates from all States and Territories and from many overseas countries met in Brisbane in August 1975 for the conference 'Women's Health in a Changing Society'. The conference, jointly sponsored by the Commonwealth Department of Health and the National Advisory Committee for International Women's Year, was the first of its kind in Australia.

Guest speakers from other countries included Dame Josephine Barnes, of Britain (Vice-President of the Royal College of Obstetricians and Gynaecologists and President of the Women's National Cancer Control Committee); Professor Jamal

Margaret Lawrie of the Aboriginal Health Branch of the Department of Health (third from left) discusses the program for the Women's Health Conference with other Aboriginal delegates, from left, Betty Johnson of the Department of Aboriginal Affairs in Darwin, Daisy Wagabara of Goulburn Island and Margaret Furber of Adelaide.

The Women's Health Conference, organised by the Health Department for International Women's Year, attracted 950 *delegates to Brisbane from all parts of Australia and overseas. A wide range of health matters was discussed and the conference concluded with a postal vote on more than* 100 *recommendations put by delegates.*

Karam Harfouche, of the Lebanon (Professor of Maternal and Child Welfare and Chairman of the Department of Community Health Practice at the American University, Beirut); Ms Jan Carter, of Britain (an Australian authority on the problem of battered children, who works with the British National Institute of Social Work Training); Ms Janet Tuffy, of Canada (an Australian who works as a nurse-practitioner for the Canadian Government in isolated Eskimo communities).

Financial assistance was provided to enable delegates from the most distant States to attend the conference. Aboriginal women met at a workshop and presented their findings on their health problems to a session of the conference.

The four main streams to the conference were Reproductive Life and General Health, Behavioural Aspects of Women's Health, A Woman's Work and Problems of Isolation.

Spontaneous workshops were held on women's refuges, counselling techniques and medical student curriculum reforms.

Out of more than 300 applications, over 180 papers were selected. Over 100 recommendations were made on subjects such as nutrition, women's refuges, motherhood, isolation and the special problems of Aboriginal women.

A more detailed report of the papers and recommendations was published in *Health* Vol. 25, No. 4, 1975. The full conference proceedings will be published.

Health Services Division

Community Health

The Community Health Branch has primary responsibility for administration of the Community Health Program, at Commonwealth level.

During 1975-76, there was an increase of 161, from 582 to 743, in the number of projects for which Commonwealth allocations were approved. One of the characteristics of the Program has been the wide geographical 'spread' of projects throughout Australia—from Karumba on the Gulf of Carpentaria to Hobart; from Busselton in the south western region of Western Australia to Rockhampton, Queensland; and from Coober Pedy in the South Australian inland to the Sydney and Melbourne inner-city areas. Project types range from main community health centres, through categories including day care centres, mobile community health units and alcohol detoxification centres and one-nurse community nursing posts.

The Program emphasises services at the 'grass roots' level, including those aimed at prevention, and this development is particularly illustrated by increases in the number of approved community health centres. Health centres which include, or will include primary medical care have increased from forty-eight to sixty-six. Community health resource centres and sub-centres providing specialist and allied health professional services at field level have increased from 152 to 208, and health education projects have increased from sixteen to thirty-one.

Projects funded under the Community Health Program are operated at various levels—national, State, area and local. While the majority of projects are conducted by State health authorities, 208 or approximately 29 per cent, are conducted by non-governmental organisations such as community groups, charitable bodies and health service organisations.

Most projects conducted by non-governmental organisations are funded by the Commonwealth through the relevant State health authorities. Close liaison is maintained with State health authorities and there has been mutual co-operation between both administrations.

Projects conducted by non-governmental organisations include national programs. These projects, which include national secretariats or co-ordination units, operate at national level or throughout several States. They receive Commonwealth funding direct, usually at a 100 per cent rate.

The largest national project to receive Commonwealth financial support under the Community Health Program was the Family Medicine Program conducted by the Royal Australian College of General Practitioners. The main objectives of the Family

Medicine Program are to improve the quality of general medical practice by providing training assistance in community medicine for recently graduated medical practitioners. It aims to relieve the shortage of general practitioners by attracting a higher proportion of medical graduates into, or back into, general practice. Other national projects funded under the Community Health Program in 1975-76 included those conducted by the National Heart Foundation (education program), the National Lifeline Association (national secretariat), the Australian Medical Students' Association (undergraduate multi-disciplinary health care training), and the Australian Foundation on Alcoholism and Drug Dependency (national secretariat and national seminars, particularly industrial initiatives).

Commonwealth Government community health facilities

During 1975-76, plans got under way to provide Commonwealth premises for two community health centres. One of these projects—a main community health centre at Bellerive on Hobart's Eastern Shore—is largely a Commonwealth response to the health service needs of Eastern Shore residents following the Tasman Bridge disaster. Construction of the centre commenced in April 1976 and is expected to be completed early in 1977. It will be operated by the Tasmanian health authorities.

The other project is a smaller community health centre at Doveton, Victoria. Premises were acquired and renovated and the centre was opened in June 1976. It is conducted by a registered community committee.

The Commonwealth Departments of Administrative Services and of Construction took primary responsibility for property and design and construction matters for both these projects.

The Doveton Hallam Community Health Centre is one of many projects where existing premises have been adapted for use as community health facilities. This building, formerly a church, was purchased by the Commonwealth Government. The Health Centre, opened in June 1976, is managed by a community committee and the operating costs are met by the Commonwealth in association with the Victorian Hospitals and Charities Commission.

At the Health Commission of New South Wales Diagnostic and Assessment Centre, Albury, Sister Yvonne Fawl, a community nurse, uses an audiometer to test the hearing of a child.
Community nurses are an important part of the community health professional team.
(Photo: Health Commission of N.S.W.)

Throughout the year, the Branch reported regularly to the Hospitals and Health Services Commission on the progress of the Community Health Program. Officers of the Branch provided representation on the interim committee of the Children's Commission, the Family Services Committee of the Social Welfare Commission, and the Community Health Joint Committee and the Working Party of the Hospitals and Health Services Commission.

The Hospitals and Health Services Commission's Review of the Community Health Program, which was tabled in Parliament on 2 June, recommends that the administrative arrangements for the Program should be changed to give State health authorities greater administrative flexibility and that, within this concept, block grants should be made available to the States for total State programs. Some steps in this direction were taken during 1975-76. Towards the end of the year, the grants which had previously been approved on an individual projects basis for 1975-76 were changed to block grants on a total State basis.

The Community Health Program has now been in operation for three financial years, and increasing emphasis will in future be given to evaluation.

Hospitals Facilities Services

The five-year program of capital assistance to the States under the Hospitals Development Program, begun in 1974-75, was continued during the year. The joint Commonwealth and State program aims to co-ordinate planning of hospital and related health

facilities. It is a fundamental principle of the program that Commonwealth Government funds are directed towards assisting total State programs, rather than individual projects.

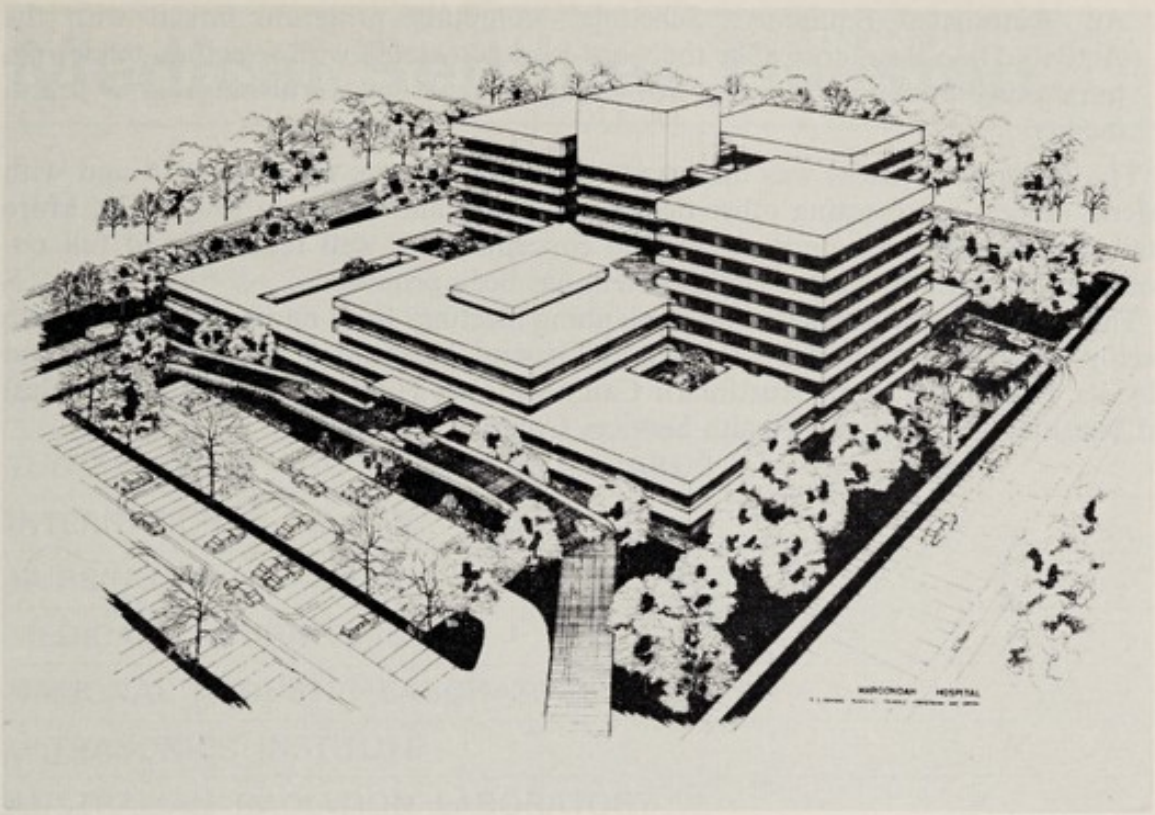
In 1975-76, grants to the States totalled $107.15 million compared with $30.306 million in 1974-75. Allocation of grants to each State was:

	$m
New South Wales	37.7
Victoria	27.28
Queensland	15.28
South Australia	12.90
Western Australia	11.90
Tasmania	2.09
	107.15

Some examples of State projects which received assistance in 1975-76 are set out below:

NEW SOUTH WALES	Westmead and Campbelltown Hospitals.
VICTORIA	Royal Victorian Eye & Ear Hospital, Austin, Dandenong and Maroondah Hospitals.
QUEENSLAND	Royal Brisbane, Chermside, Redcliffe, Cairns and Boonah Hospitals.
SOUTH AUSTRALIA	Flinders Medical Centre, Port Pirie, Hillcrest and Glenside Hospitals.
WESTERN AUSTRALIA	Osborne Park, Perth Dental and Rockingham Hospitals.
TASMANIA	Launceston General, Royal Hobart, St John's Park and Mersey General Hospitals.

The new wing at the Osborne Park Hospital, Western Australia, is near completion. Financial assistance for extensions to the hospital was provided under the Hospitals Development Program.



An architect's concept of the total development of Maroondah Hospital, Victoria. Stage one, consisting of 38 beds was recently completed. Stage two, of a further 76 beds, will be completed by the end of 1976. The project is one of many receiving financial assistance under the Hospitals Development Program.

One of the main tasks of planners and designers of hospital and other health facilities is to organise financial and other resources to obtain the best possible return for investment. With this in mind, and with the assistance of the Department of Construction, a team was assembled representing ten disciplines concerned with health facilities and their operation.

Planning and evaluating procedures

The Branch is developing planning and evaluating procedures for health facility construction and information systems to help solve design and construction problems. The team is developing an organisational framework to build up design and planning information. Such a system will give hospital planning teams information on previous solutions to design problems in hospital construction planning. Solutions, new ideas and information from throughout Australia and overseas, can be gathered, stored and retrieved by new project teams as required.

A preliminary action sequence for health facility planning has been produced to describe the sequence of activities necessary for integrated planning of any health facility. Within the integrated information planning system, and in support of the action sequence, a number of other aids and guidelines are being developed:

- A 'Hospital Information File'—a computer based system providing multi-disciplinary information on health facility planning and operation.
- An 'Activity Data Base'—to provide pre-packaged information to planners which can be readily adapted to solve problems of function and space relating to specific areas within a hospital or health facility.

- An 'Automated Equipment Schedule'—computer program, linked with the Activity Data Base, to reduce the work load associated with selecting, tendering, purchasing and inventory control of equipment and furnishings in a health facility.

The integrated system was discussed with State officers in April 1976 and with Federal officers representing other departments and authorities in May 1976. More detailed discussions are under way. The concepts were well received and full co-operation in the development of the system has been promised.

The Branch is also participating in planning meetings for a number of major State developments. These include Launceston General Hospital (Tasmania), Para and Whyalla Hospitals (South Australia), Campbelltown Hospital (New South Wales) and Sunshine Hospital and Health Services Complex (Victoria).

Medical Services Division

Tuberculosis and Health Standards

Action to terminate the Australia-wide campaign against tuberculosis on 31 December 1976 was mentioned in the introductory chapter. This action will bring to an end a public health program that has brought tuberculosis under control in Australia after 27 years of Commonwealth/State effort.

When the campaign started in 1949 tuberculosis presented a serious problem. Morbidity and mortality rates were high and there were shortages of hospital beds, staff and equipment. There was no known effective treatment drug to control the disease.

To meet this situation the Commonwealth Government offered to reimburse the States all the additional expenditure they would incur in attacking tuberculosis under a co-ordinated national program. Under the program the Commonwealth Government provided a total of $325 million and the States contributed $43 million. The States have secured the facilities by way of hospital beds, clinics and equipment and have conducted vigorous co-ordinated campaigns. A National Tuberculosis Advisory Council provided regular expert advice on the conduct of the program; special tuberculosis allowances were paid to enable sufferers to cease work and undertake treatment.

The program was successful. Morbidity or annual new case discovery rates per 100 000 of population were reduced from 49.5 in 1949 to 9.9 in 1975. Mortality rates were reduced from 24.8 in 1949 to 1.1 in 1974. In those States where the presence of atypical mycobacteria has not complicated testing results the naturally positive tuberculin skin test reactors are less than or near to 1 per cent at age 14 years which is generally accepted as indicating that a stage of tuberculosis control has been reached. Throughout Australia at 31 December 1975 there were only six cases of tuberculosis recorded as having been bacteriologically positive for 12 months or longer.

This advanced stage of control having been reached, the Commonwealth Government considers that the program has achieved its aim and should be terminated. It considers that the States have been well equipped under the program to maintain proper control of tuberculosis as part of their normal public health services.

There can be no doubt that Australia's anti-tuberculosis program has been an outstanding success and an excellent example of Commonwealth/State relationships and co-operation.

Without detracting from the program it should be recorded that the discovery of effective treatment drugs soon after the program began contributed greatly to its success and kept costs at acceptable levels.

Medical standards and handbook for Commonwealth Medical Officers

Medical standards and procedures for appointment to the Australian Public Service and for purposes of the Commonwealth Government's new superannuation scheme were established during the year in consultation with the Public Service Board and the Superannuation Board.

The Medical standards and procedures were incorporated in a revised handbook for use by Commonwealth Medical Officers. The handbook, which covers the whole range of activities of Commonwealth Medical Officers, was distributed early in June 1976.

The new procedures incorporate two important changes. The first concerns appointment. The Public Service Board has issued delegations under the Public Service Act to officers of the Department of Health enabling them to accept persons as fit for appointment to the Service. The delegations do not confer authority to reject persons for appointment as such authority is to remain with the Public Service Board. The Department therefore will not be making decisions which are subject to appeal and its traditional role of medical adviser will not be jeopardised by exercising the delegations granted.

The second important procedure change is that Departmental officers with Public Service Board delegations relating to appointment will advise the Commissioner for Superannuation of the code number in the International Classification of Diseases of disabilities in examinees who do not meet the medical standards for superannuation. The classification will be recorded in the superannuation computer files and will enable subsequent correlation between disabilities recorded at examination and at invalidity or normal retirement. Such a study will provide for the first time, data enabling tests to be made of the validity of the levels of fitness laid down arbitrarily in the medical standards.

Medical expenses incurred by officers serving overseas

Introduction of Medibank during the year raised the question of how officers serving overseas were to be recompensed for medical and hospital costs incurred by them and their families. Prior to Medibank they were entitled to receive medical and hospital expenses above the cost they would have incurred in obtaining similar medical services in Australia. Advice on comparable costs in Australia were furnished by the Branch to the department or authority concerned.

Following consideration of the Medibank provisions the Public Service Board issued Determination No. 861 of 1975 on 19 September 1975. Under this determination the Government accepts full responsibility for medical and hospital services properly incurred by officers overseas after 1 July 1975. Reference to the Department of Health for advice of expenses incurred after that date is no longer necessary.

Costs incurred before 1 July 1975 continue to be referred to the Department for advice on comparable costs so that departments may assess the reimbursement to be made. A total of 233 such referrals were received in 1975 and others were being received at the end of the financial year.

Medical clearance of migrants

The Government decided during the year that medical examination of prospective emigrants to Australia from Europe and the Middle East should be conducted by doctors of those countries. Limited checking of the work of these doctors will be carried out by Australian based medical officers. This change will enable the number of Australian based doctors overseas to be reduced from twenty-seven to eight. The new procedure will be observed closely to ensure that it is providing a satisfactory service and safeguarding Australian health.

During the year 18 472 applications for medical clearance to enter Australia from persons in Asia and South America were dealt with in Canberra.

Tuberculosis in migrants

People born outside Australia constitute 20.2 per cent of the Australian population and presented with 36.1 per cent of the new and reactivated cases of tuberculosis discovered in 1975. Fifty-five point six per cent of the cases discovered in the Australian Capital Territory were in people born outside Australia. The percentage in Western Australia was 52.2 and in Victoria forty point nine.

More than half (51.5 per cent) of the cases of non-pulmonary tuberculosis discovered in 1975 were in people born outside Australia. These people accounted for 72.1 per cent of the genito-urinary system tuberculosis discovered and 35.6 of the glandular tuberculosis.

Conferences

The Ninth Australian Tuberculosis Clinical Conference was held in Brisbane on 14 to 18 July 1975. Delegates from all States and Territories and five delegates from New Zealand contributed to the scientific sessions.

Cyclone Tracy forced abandonment of the plans to hold the conference in Darwin. In recognition of the contributions offered by Darwin personnel when the conference was planned for Darwin, arrangements were made for the scientific work on the first day of the conference to be presented by Darwin personnel.

For the first time papers on leprosy were presented at the conference.

Hospital beds

At 31 December 1975 there were 1031 hospital beds throughout Australia available specifically for the treatment of tuberculosis patients. With the exception of beds in mental hospitals which were financed under separate arrangements and the tuberculosis beds in Heatherton Sanatorium which continued to be financed under the tuberculosis arrangement, the tuberculosis beds in all Stages were taken into the Medibank agreements during the year.

Under Medibank the States receive 50 per cent of the hospital costs of tuberculosis patients instead of receiving reimbursement of the total cost under the tuberculosis arrangements. The beds remain available for the treatment of tuberculosis unless

released for other use by the Minister for Health. Beds are used by general patients when they are not required for tuberculosis treatment.

Tuberculosis allowances

The number of people receiving a tuberculosis allowance at 31 December 1975 was 326 compared with 325 a year earlier. Seven hundred and ninety-seven people were granted an allowance during the year.

No further relaxation of the allowances means test was granted but the rates of allowances were increased in line with Social Security benefits in November 1975 and May 1976. The allowance payable to a sufferer without dependants and undergoing approved domiciliary treatment was increased from $39.25 a week to $44.50 a week. The allowance paid to a breadwinner sufferer and to his dependent spouse was increased from $31.75 a week to $36.00 a week each. Additional allowance for each dependent child was increased from $7.00 a week to $7.50 a week.

Mass X-ray surveys

Examination in mass chest X-ray surveys increased marginally from 1.09 million in 1974 to 1.15 million in 1975. However, the number of cases of tuberculosis discovered dropped from 226 in 1974 to 170 in 1975; the case discovery rates per 1000 X-rays being 0.21 in 1974 and 0.15 in 1975.

The significant decrease in the case discovery rate came at a time when the State programs were aiming at areas of higher incidence. A higher discovery rate could therefore have been expected.

Such an expectation appeared to have been fulfilled in 1974 when there was a one-third reduction in the number of people X-rayed in the previous year yet there was no corresponding drop in the number of cases discovered. The discovery rate in 1974 was 0.21 after remaining stable at 0.18 to 0.19 in the previous four years.

The low discovery rate of 0.15 in 1975 should prompt States to review their programs and confine surveying to productive areas. The surveys remain suspended in Western Australia while Victoria raised the minimum age for attendance to 35 years during the year.

Source of notifications

Again in 1975 chest clinics discovered the greatest percentage (27 per cent) of new cases of tuberculosis notified. Hospitals discovered 26 per cent. For the first time since X-ray surveys were introduced private medical practitioners discovered a higher percentage of cases (19 per cent) than mass X-ray surveys (17 per cent).

International Health

The International Health Branch maintains a close liaison with international health organisations and represents Australia in the international health field. In 1975-76, departmental officers attended the World Health Assembly in Geneva, the fifty-seventh and fifty-eighth Sessions of the WHO Executive Board, the WHO Regional Committee meeting in Manila, the meeting of the Governing Council of the International Agency for Research on Cancer in Lyon, France, and the seventh Conference on Health Services of the South Pacific Commission in Vila, New Hebrides.

During the year the Branch continued its advisory role on overseas health aid projects to the Department of Foreign Affairs and to the Australian Development

Assistance Agency. It also continued to train sponsored overseas Fellows in health fields in Australia, and participated in the work of the WHO Regional Teacher Training Centre for Health Personnel at the University of New South Wales.

WORLD HEALTH ORGANIZATION

The Director-General of Health led the Australian delegation to the twenty-ninth World Health Assembly from 3 to 21 May 1976, and the fifty-eighth Session of the WHO Executive Board held on 24 and 25 May, in Geneva.

Officers of the Department of Health also represented Australia at the fifty-seventh Session of the WHO Executive Board held in Geneva in January 1976.

Twenty-ninth World Health Assembly

The main agenda items at the twenty-ninth World Health Assembly were:

Admission of new members. Papua New Guinea, previously an associate member, was admitted as a full member of WHO. Angola was also admitted to full membership at this Assembly, bringing the total number of member states of WHO to 151.

Review of Program Budget for 1977. During the discussion on this item the 'group of 77' countries, representing the developing world, gained acceptance of a resolution calling on the Director-General of WHO to reorientate the Organization's work. By 1980 at least 60 per cent of its regular budget will be devoted to forms of direct technical co-operation and assistance to the developing countries. This is expected to accelerate an already existing trend in this direction in WHO programs.

The Assembly approved a budget of $US147 184 000 for 1977.

Sixth General Program of Work. The sixth General Program of Work, covering the period 1978-1983, was approved unanimously. The document on this subject, which divides WHO's activities into six main program areas, will form the basic strategic plan for that period. Emphasis is given in this document to evaluation of all WHO programs and, for the first time, promotion of biomedical and health services research was included as a main program area.

Human health and environment. Representatives of the developing nations pointed out that their major environmental problems were to provide safe water supplies and to dispose of human wastes. WHO is already giving top priority to these activities.

Biomedical research. In discussing WHO's role in the development and co-ordination of biomedical research, many nations stressed the importance of applying existing knowledge and technology to the urgent problems facing developing countries.

Special program for research in tropical diseases. Discussion took place on the general outline of the new WHO program to mobilise the research resources of both the developed and the developing world in an intensive attack on the six tropical diseases which cause most deaths and disability. These are malaria (over one million children die of this every year in Africa alone), trypanosomiasis, schistosomiasis, filariasis, leishmaniasis and leprosy.

Health manpower development. During the discussion on this item delegates pointed to the need for medical school curricula to keep up with the changing roles of health personnel, and stressed the problems of medical graduates whose highly scientific training and qualifications created difficulties when they had to work in some rural and non-developed environments.

Expanded program on immunisation. Many developing countries highlighted their difficulties in this area—notably delays in receiving vaccine supplies from overseas countries and a lack of satisfactory storage facilities to maintain the necessary 'cold chain'.

Smallpox eradication. WHO's Director-General reported that the only place in the world where this disease was now being detected was in a small number of relatively isolated villages in Ethiopia. The need to register certain laboratories which could hold stocks of smallpox virus after the disease had been fully eradicated was discussed.

Schistosomiasis. Variation in the patterns of infection linking man, the snail and the environment was stressed in regard to this disease. It is important that the method of attack be varied from one area to another, and that dependence should not be placed solely on agents to destroy the snail vector of the disease.

Promotion of primary health care. It was decided that an international conference on this topic be held in the Soviet Union during 1978.

Anti-malaria program. The program suffered serious setbacks in the last two years, especially in South-East Asia, where a threat of resurgence of the disease exists in many countries and where the number of cases of malaria reported increased four-fold between 1970 and 1975.

Increase in size of the Executive Board. The Assembly decided to increase the size of the Executive Board from 30 to 31 to allow the WHO South-East Asian Region to have three representatives instead of its present two.

Fifty-seventh Session of the Executive Board

The Board's fifty-seventh Session was held in Geneva from 14 to 31 January. The Board considered a number of matters which were later presented at the twenty-ninth World Health Assembly. These included the development and co-ordination of bio-medical research, promotion of national health services relating to primary health care, psychosocial factors and health, prevention of road traffic accidents, health manpower development, and human health and environment.

Fifty-eighth Session of the Executive Board

At this Session of the Board, which took place in May immediately after the twenty-ninth World Health Assembly, a decision was taken to investigate ways in which the Board could become more involved in WHO program activities and the development of WHO policies so that the Board could assume a more responsible decision-making role. As a first step, a program committee was established to look into ways in which the World Health Assembly's resolutions can be implemented by the Organization and into the introduction of the strategic outlines of the sixth General Program of Work. Australia's Director-General of Health was elected a member of this eight-man committee.

International Agency for Research on Cancer

The fifteenth Session of the Governing Council of the International Agency for Research on Cancer was convened in Lyon on 29 and 30 April 1976. All ten participating States—Australia, Belgium, France, Federal Republic of Germany, Japan, Italy, Netherlands, United Kingdom, U.S.A. and U.S.S.R.—sent delegations to the meeting.

In his report on the Agency's activities the Director stressed the need to differentiate between environmental factors (such as smoking) which are concerned with the individual and those which affect the whole community. The Chairman of the Scientific Council considered that research into certain types of cancer had now reached a stage where intervention trials would be justified. This applied particularly

Dr Michael Lim Kee Leong, Lecturer in the Faculty of Medicine, University of Malaya, Kuala Lumpur, discusses with Dr Brian Thomas, Head of the Physics Department, Queensland Institute of Technology, the program for the First Regional Course in Medical Physics sponsored by the World Health Organization—Western Pacific Zone. The three-week course, held in Brisbane, was organised jointly by WHO, the Commonwealth Department of Health, the Queensland Health Department and the Queensland Institute of Technology.

to the connection between liver cancer and aflatoxin in Africa. The value of the Agency's resources to the United States' Cancer Program was stressed, as was its value in opening up new avenues of research.

Regional Teacher Training Centre for Health Personnel, Sydney

Since its establishment in 1973, as a co-operative undertaking between WHO and the Australian Government, the Centre's activities have expanded both in number and kind.

The aim of the Centre is to improve the teaching skills of health personnel working in the WHO Western Pacific Region. Membership of this Region extends over an area from South Korea to Western Samoa—and includes Australia.

Short-term workshops were one of the Centre's major activities, and these comprised both international workshops (for personnel from countries within the Region) and national workshops (for Australian health personnel).

International workshops were conducted in 1975-76 on evaluation, dental health personnel education and generating educational change in medical faculties.

Six national workshops were held for health personnel, including occupational health nurses and people involved in drug education.

In addition to the workshops conducted in Australia, the Centre's staff were consultants in four on-site workshops on teaching methodology, arranged by WHO and held in the Philippines, Japan, Papua New Guinea and Fiji.

Another important activity of the Centre this year was conducting the new degree course of Master of Health Personnel Education.

Regional Committee

A Deputy Director-General of Health led the Australian delegation to the annual twenty-sixth Session of the WHO Regional Committee for the Western Pacific Region in Manila, Philippines, from 1 to 6 September 1975.

Health topics of importance to the Region were dealt with by the Committee. They included primary health care (particularly in rural areas), drug dependence, infant nutrition, the anti-malaria program and the control of tuberculosis.

SOUTH PACIFIC COMMISSION

An officer of the Department of Health represented Australia as an observer at the South Pacific Commission's Seventh Conference on Health Services, held at Vila, New Hebrides, from 9 to 13 February 1976.

The Conference reviewed the work done in the health field by the Commission and the countries in the area and, among other activities, decided to continue its programs in nutrition (including health education and dental health), environmental health, epidemiology (with special projects on dengue fever and fish poisoning) and mental health.

Eight training courses were organised in 1975 and the program approved for 1977 includes training courses on health education, meat inspection and epidemiology (including prevention and treatment of acute respiratory diseases other than tuberculosis), as well as a regional seminar on the medical and surgical treatment of leprosy.

AUSTRALIAN FOREIGN AID

During the year the Branch continued to be the principal consultant to the Australian Development Assistance Agency on the health aspects of foreign aid programs. Advice was given on medical aid proposals for Indonesia, Malaysia, Burma, Vietnam, Gilbert and Ellice Islands, Solomon Islands, and other countries of South-East Asia and the Pacific.

A continuing dialogue on health aid is maintained with the Department of Foreign Affairs and the Australian Development Assistance Agency, and the Branch played a major role in the on-going formulation of Australian health aid policy.

Training of overseas Fellows in Australia

During 1975-76 the Department continued to arrange training for overseas Fellows in the health field. These trainees were sponsored by WHO, the Colombo Plan, the South Pacific Aid Program, the Commonwealth Scholarship and Fellowship Plan, and the Australia-Papua New Guinea Education and Training Scheme.

When the Department receives such training requests, usually from the Australian Development Assistance Agency, placements are sought with universities, hospitals, colleges of nursing, State health authorities and a number of medical, dental, nursing and paramedical bodies. Much of the ensuing liaison with the institutions is concerned with arranging and amending individual training programs. Over the twelve-month period the number of overseas Fellows undertaking training arranged by the Department totalled 114, involving 241 separate placements.

Seventy-eight overseas Fellows began training during the year in either formal or *ad hoc* courses in post-graduate medicine and surgery as well as pharmacy, dentistry, physiotherapy, pathology, anaesthesiology, psychiatry, cardiology, radiography, medical records, post-basic and post-graduate nursing and health administration. A

further 17 overseas Fellows attended an international training course in health services administration in Sydney and Canberra from August to October 1975.

Other activities

The Branch arranged programs for a number of overseas visitors to Australia, including the Thai Minister for Public Health, Mr Prachoom Ruttanapian, and the WHO Representative for the South Pacific, Dr J. H. Hirshman.

Four WHO Fellowships were awarded for 1976 to enable Australians to study overseas, and the Branch was responsible for the administrative arrangements connected with these. The fields of study of the four Fellows were vaccine production; treatment, management and rehabilitation of malnourished children; industrial noise; and developmental and community paediatrics.

Nursing

The Nursing Section's participation in national nursing affairs gathered momentum during 1975-76. The Department, recognising the need for nurses to advise on health care policies, and in particular their nursing content, appointed a Director of Nursing. National nursing policies for issues relating to nursing practice, education and trends in health care were developed in greater depth by the Section.

Advisory services continued to be provided by the Section to areas within the Department including Aboriginal Health, Occupational Health, and, in particular, areas servicing the Hospitals and Health Services Commission, Research and Planning, Community Health and the Hospital Facilities Services Branches. The Capital Territory Health Commission, the Canberra College of Advanced Education and other government departments continued to seek assistance.

Meetings attended by officers during the year included an inter-departmental committee meeting at which the Public Service Review Team presented its proposal for the new nurse classification structure, the International Womens' Year Conference, the National Advisory Committee for International Womens' Year, a conference on national nursing issues, and the annual council meetings of the College of Nursing, Australia and the Royal Australian Nursing Federation.

The Section continued to provide the Secretariat for the N.H. & M.R.C. Nursing Standing Committee, with the Director of Nursing acting as Secretary/Convener.

The Principal of the Section attended State workshops held in conjunction with the visit of an occupational health nurse consultant from New York to the Hospitals and Health Services Commission. Other visitors to the Section included Dr D. Kergin, Associate Dean, Faculty of Health Sciences (Nursing) McMaster University, Hamilton, Ontario and Dr S. Archer, Assistant Professor, Community Nursing, University of California, San Francisco.

Involvement by the Section with the *Goals in Nursing Education* Report was maintained throughout the year. The Report, recently released, contains important policy statements on nursing education of three national nursing organisations and the New South Wales College of Nursing. The Director of Nursing is the nominee of the National Florence Nightingale Committee of Australia to the University of New England Working Party. The Section was represented at two national conferences and a workshop conducted by the Australian National University Centre for Continuing Education to discuss the Report.

Liaison was maintained throughout the year with State, national and international nursing authorities. Professional organisations continued to show interest in the publication *Post Basic Nursing Courses in Australia*. The Section is currently revising the third edition.

Medical Laboratories

In 1975-76 the services provided by the Department's Pathology Laboratories continued to expand in both the range and number of tests performed. This is consistent with the increasing demand for laboratory services and continuing developments in clinical pathology.

The Medical Laboratory Service, established more than 50 years ago, is an important part of the nation's health-care delivery system. The laboratories provide a free diagnostic pathology service to all hospitals and medical practitioners in the 14 regions they serve. Departmental laboratories are located at Cairns, Townsville, Rockhampton, Toowoomba, Lismore, Tamworth, Albury, Launceston, Hobart, Darwin, Alice Springs, Bendigo, Port Pirie and Kalgoorlie. (Administration of the Pathology Laboratory at Canberra was transferred to the Capital Territory Health Commission in 1975.)

The laboratories' services are also available to Government instrumentalities and other local institutions for public health type examinations. Many of the laboratories also carry out the examination of donor blood on behalf of Red Cross Blood Transfusion Services.

During the year 3.9 million tests and examinations were carried out by the laboratories, an increase of 14 per cent over 1974-75 (when work carried out in the Canberra laboratory is excluded). Statistics of work performed in 1975-76 are shown in the Statistics Appendix.

Accommodation

A new laboratory at Bendigo is expected to be offically opened in September 1976. The new building will provide for the current accommodation requirements of the laboratory which has been in operation at Bendigo since 1922.

At Townsville an extension to the existing building was completed during the year, providing an additional 500 square metres of laboratory space.

New laboratory buildings are being planned at Port Pirie, Hobart, Launceston, Darwin, Rockhampton, and Townsville. New accommodation for the laboratory at Alice Springs is also being planned.

Conferences

A conference of Departmental technologists was held at Canberra in September 1975. The theme of the conference was clinical biochemistry.

Equipment Committee

The Departmental Equipment Committee met at Lismore in July and at Canberra in December and recommended an evaluation program which was implemented in the latter part of 1975. A variety of laboratory equipment items has been evaluated by individual laboratories and reports were distributed. The evaluation program will be continuous and will provide information on the suitability of laboratory equipment.

Training scheme

The first intake of trainee technical officers recruited in 1975 under a new 'sandwich-type' training scheme for laboratory centres lacking local training facilities began their first year of full-time study in February 1976, at the Canberra Technical College.

Twelve trainees came from Port Pirie, Kalgoorlie, Lismore, Tamworth, Albury, Darwin and Alice Springs.

The training scheme for trainee technical officers from laboratories where part-time studies can be undertaken at local technical colleges is to continue. However, recruitment restraints prevented any further intake under either scheme in 1976.

Specimen pick-up and report delivery services

To provide a more efficient pathology service a number of specimen pick-up and report delivery services were introduced during the year. These additional services make it possible for specimens to be collected at regular intervals from hospitals and doctors' surgeries. This results in better control of work input into the laboratory and enables full use to be made of personnel and equipment. It also means that results of tests can be more speedily conveyed to the requesting doctor. Further studies were undertaken on the feasibility of extending this program to include all laboratories.

Other activities

During the year the Medical Laboratories Branch through participation in committees, working parties and conferences, also engaged in matters relating to the overall practice of pathology in Australia, including work on the proposed Scheme to Accredit Pathology Laboratories in Australia and Medibank Review activities.

National Acoustic Laboratories

There was a further increase in demand for audiological services during the year. These services include the fitting of hearing aids to children and young adults under the age of 21 years, pensioners, ex-servicemen and several other minor groups.

Eight different models of hearing aids have been developed and designed by the Laboratories and are assembled under contract by private industry. Most of these can be varied in many ways for optimum fitting. The number of these aids produced was higher than in any previous year.

Hearing testing and aid fitting services are provided at clinical hearing centres in all capital cities and other major centres and on a visiting basis in country areas throughout Australia. New permanently staffed hearing centres were opened at St Kilda, Mt Gravatt, Wollongong and the Northern Territory during the year. The hearing centre in the Northern Territory is of particular significance as it will enable NAL to undertake a long-term program of development of specific techniques for assisting hearing-impaired Aboriginal children. The problems of these children are frequently different from those of hearing-impaired children of European origin.

Research on hearing and hearing aids was continued and good progress was made in developing methods for determining the most appropriate hearing aid characteristics for each person requiring assistance.

Hearing conservation activities were concentrated on existing and proposed programs within the defence services and Commonwealth Government departments and the development of methods for the measurement and evaluation of noise.

Hearing and hearing aid services

The number of people receiving audiological services and hearing aids increased markedly during the year and approximately 39 000 hearing aids were produced for

Audiologist Miss Julie Lewis, conducts a rehabilitation session with a group of adults at the National Acoustic Laboratories, Adelaide.

distribution. In addition, 3000 high-powered, commercial, behind-the-ear aids were purchased on contract from private industry mainly for fitting to severely and profoundly deaf children now wearing body aids. In previous years, the major proportion of aids produced were in-the-ear models, whereas this year, 75 per cent were behind-the-ear models.

Work is in progress on the application of a miniature thick-film hybrid circuit for use in a new, high-powered behind-the-ear hearing aid. This technology is new to hearing aids and is part of a continuing program to incorporate the latest technology in aids provided by the Laboratories. This program was assisted by information obtained from a number of Scandinavian and European hearing aid manufacturers and research organisations which were visited by a senior engineer.

A NAL-designed hearing aid test box suitable for checking the performance of hearing aids at aid servicing centres was developed and work was commenced on the design of a microprocessor-controlled hearing aid test facility suitable for production testing of aids by semi-skilled staff.

Formal after-fitting care programs have been developed to assist hard-of-hearing adults to make the most effective use of hearing aids.

Services for children

The trend to earlier diagnosis and hearing aid fittings has continued with the age of the two youngest children fitted being 43 and 57 days. The great value of fitting behind-the-ear aids to children is now clearly established and has been further demonstrated with the introduction into the NAL range of a commercially produced, high-powered aid, built to Laboratory specifications. First fittings of this aid were undertaken in September. Initially it was anticipated that over a two-year period 1500 children over the age of six years would be issued with this aid in replacement of their body-worn aids. The rate of fitting has exceeded this target in the first nine months of the program, during which the aids of 840 children were changed over. Furthermore, laboratory staff have overcome the expected technical difficulties

associated with fitting high-powered behind-the-ear aids to younger children. The proposed six year age limit which was based on experiences and policies existing in other countries where aids of this type are provided by the Government, has been abandoned, and children of any age are fitted, if suitable. The youngest child fitted with a high-powered, behind-the-ear aid was only nine months old.

Since the introduction of behind-the-ear Calaids in 1974-75, a total of 2 330 children have had body aids replaced and altogether 49.9 per cent now have the benefit of on-the-head listening. The Laboratories' service to children is the only large scale one in the world which employs behind-the-ear aids as a routine.

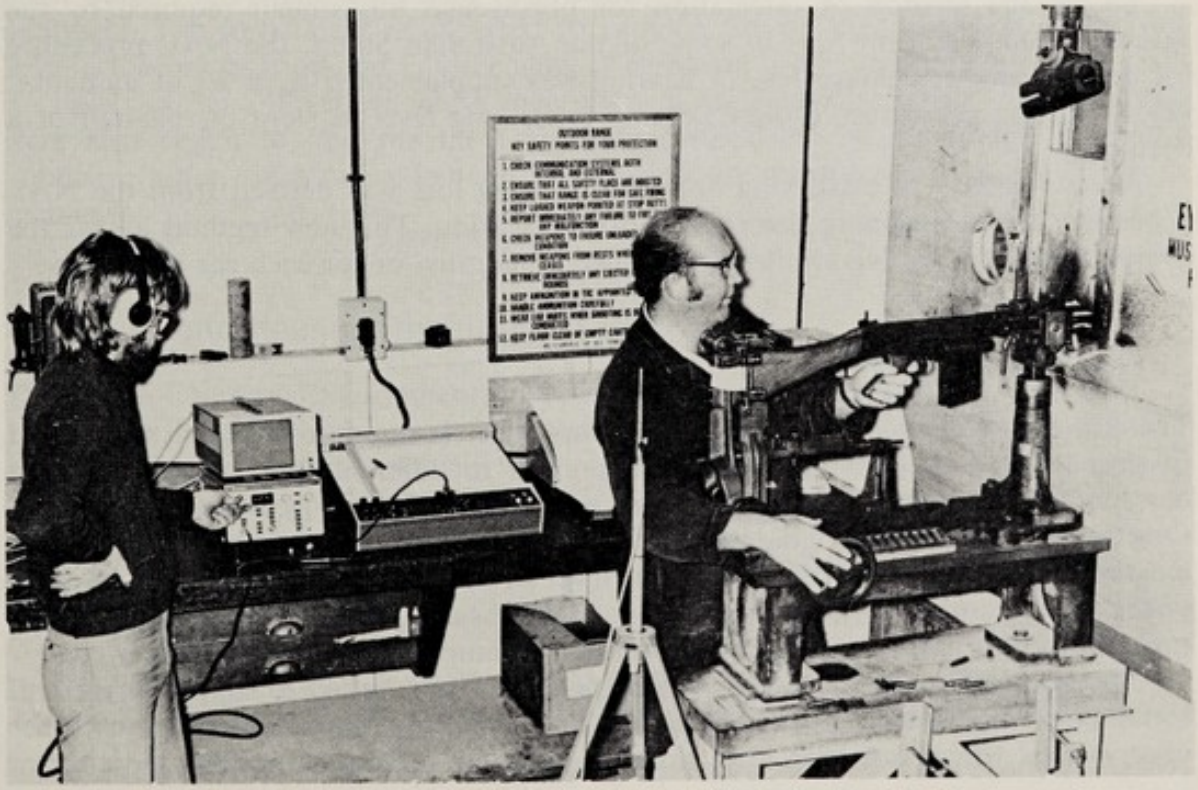
As a means of increasing the effectiveness of the program, liaison between teachers of the deaf and NAL audiologists was increased during the year. Training courses were introduced to instruct teachers on new amplification methods and technical aspects of the new aids.

Work was carried out on the design of a radio frequency hearing aid using technology developed by the Commonwealth Scientific and Industrial Research Organisation. This aid is expected to provide a more positive communication system for educational purposes as it is relatively unaffected by the acoustic conditions prevailing in a classroom situation.

Noise investigations and acoustical advice

This year hearing conservation activities were concentrated on existing programs within the defence services and Government departments, together with the derivation of a comprehensive program for the Public Service and compatible with the Model Regulations for Hearing Conservation of the National Health and Medical Research Council.

Mr Terry Smith, left, an engineer with the National Acoustic Laboratories Noise Service Section, measures impulsive noise from rifle fire at the Lithgow small arms factory. The use of firer's earplugs and a special noise shield around the rifle barrel are necessary to enable a full-day operation.



The evaluation of many types of hearing protectors was continued. This project is being undertaken in conjunction with the Division of Occupational Health and Radiation Control of the Health Commission of New South Wales, who perform mechanical tests on the devices.

Training courses on the basic aspects of noise control and hearing conservation were provided for engineers employed by Commonwealth Government departments. The courses provide a fundamental knowledge of how sound is produced, measured and controlled, and of the effects of noise on people. Staff members also presented papers and carried out field measurements at a noise seminar organised in Canberra by the National Capital Development Commission for the Inter-departmental Sub-committee on Noise.

Technical assistance and advice was given to the Department of Environment, Housing and Community Development on the evaluation of acoustical aspects of environmental impact statements.

Administration

The National Acoustic Laboratories and the Ultrasonics Institute occupy a very old building in The Rocks area of Sydney which is not suitable for the specialised activities carried out by these branches. Plans are being made for a building to be constructed specifically for the use of these laboratories on Commonwealth Government-owned land at Chatswood. An environmental impact statement attracted considerable public comment and as a result an addendum to the statement was prepared. The planning details for this new building are being handled by a steering committee comprising members from the Departments of Health and Construction.

Audiology

Investigation continued on the acoustical characteristics of the human ear, which have diagnostic implications.

To aid the method of calculation for presbycusis adjustment required by the Workers Compensation Acts of some of the Australian States, the NAL procedure for determining percentage loss of hearing was supplemented by a set of monaural tables relating percentage loss of hearing to hearing level in steps of one-half of a decibel.

A new method of classifying degree of hearing loss was derived from the NAL procedure for determining percentage loss of hearing. This new method allows the overall degree of hearing loss to be classified binaurally, or for each ear separately.

Hearing aids

The procedure devised in 1974 for selecting gain (amount of amplification) and frequency response (the relative emphasis given to different frequencies) has been incorporated into a more comprehensive system of hearing aid selection and evaluation for hearing impaired children. The new system includes a method for selecting maximum power output (the maximum level of sound which an aid can produce under any circumstances), measurements of aided hearing and methods for predicting capacity to hear speech in view of the amount of amplified signal being received.

A detailed report is sent to the child's teacher who is asked to supply NAL with certain specific information about the child's response to amplification and any other observations which can help in evaluation of aided hearing. The determination of

hearing aid requirements will help the Laboratories to ensure that the range of models and modifications is sufficient to meet individual requirements.

Hearing protectors

An improved version of the Sound Level Conversion System for rating hearing protector performance has been developed. The new rating ensures a higher protection rate.

Neuro-audiology

Work was done on the development of methods for evaluating hearing problems associated with learning difficulties in children. A computer was used to produce tests designed to measure various auditory abilities considered to be of significance for reading and other educational skills. The results of the tests, which have been made on more than 100 children at three schools in the Sydney metropolitan area, are being analysed. In addition, a project has begun in co-operation with the Department of Psychology, University of Newcastle, with a large number of learning disabled children in the Newcastle area.

Noise evaluation

A noise analysis system known as EDAS (Electronic Data Acquisition System) has been developed in accordance with principles and specifications originated at these Laboratories. The system is used for the measurement of all types of environmental noise. It will operate unattended for long periods at locations where noise is to be investigated. At the end of the data-gathering period it will provide complete information on noise levels, and the degree of variability of noise levels during the measurement time. The system is superior to presently available commercial statistical noise analysers. The instrument is expected to provide precise measurements which will help in the preparation and enforcement of legislated noise control.

Investigations of vehicle noise measurement methods continued. Investigations were also begun to find the most accurate method of measuring and recording impulsive noise, since normal sound level meters are unable to give valid results in such cases.

Noise and hearing impairment

The Study Effect of Environmental Noise on Children's Hearing was concluded. A NAL report of this work was written and a paper published in the *Journal of Sound and Vibration*. Descriptive statistics were obtained on the air conduction hearing levels of the children tested. A report presenting these data is in preparation.

Standards

Further work was done on Australian standards. Contributions were made to the development of standards on hearing conservation and the measurement of noise and to an international standard on hearing protectors.

Ultrasonics Institute

This is the first full year of operation of the Ultrasonics Institute. The Institute was formed from the Ultrasonics Research Section of the National Acoustic Laboratories to satisfy the growing need for research into medical ultrasonics.

The Institute and its scientists have an international reputation with an increasing number of invitations to speak to overseas professional and scientific organisations. Staff are contributing to two major text and reference books on diagnostic ultrasound. Research results are published regularly in international scientific journals.

The research results of the Institute are applied commercially through a licensing agreement with an Australian company. Nucleus Holdings Pty Ltd, for the manufacture and world distribution of the U.I. Octoson. The Octoson is a new generation, fast, automatic, general purpose, water coupling echoscope. The first production prototype is nearing completion and will undergo preliminary clinical trials at the Royal Hospital for Women, Sydney, before being sent to the United States for independent clinical evaluation. Commercial licensing agreements are also expected in other areas of development. Members of the Institute have applied for a number of patents in Australia and overseas and to date overseas patents have been granted for seven inventions.

The major technical developments during 1975-76 were in real time visualisation of moving objects and in the measurement of blood flow. Two fast scan echoscopes were built and clinical evaluation was begun. One is a mechanically scanned device which can be used in conjunction with a standard echoscope and the other uses an array transducer with electronic switching of the ultrasonic beam. The blood flow project is based on a pulsed Doppler system which allows the velocity of flow to be measured in a small selected volume within the examined tissue region. When used in conjunction with B mode examination this technique will allow the quantitative measurement of blood flow in individual vessels in the patient and in the unborn baby.

Using existing equipment a number of new diagnostic areas were investigated. These include the carotid arteries, jugular veins, parotids, parathyroids, testicles and prostate.

Advanced techniques

Research continued on mathematical signal processing techniques for resolution improvement and tissue characterisation of ultrasonic echoes. Work also proceeded on methods for handling the large amounts of data in a set of picture planes to produce a computer generated display of any desired cross section. A rectilinear scanner and computer was used to analyse echoes from model targets using flat and focused transducers. These projects are directed towards the development of a computer based pulsed echo diagnostic system.

Research continued on ultrasonic propagation in tissue and acoustic imaging. Some theoretical work was done on transient pulse propagation analysis and a project on the measurement of reflection and transmission properties of tissue is proceeding.

Engineering research

The main projects of the Engineering Research Section were the development of two real time echoscopes and the pulsed Doppler system. Two approaches to real time visualisation were employed. A mechanical scanner was developed to permit a real time image to be obtained as inexpensively as possible. An ultrasonic array system

with a much higher imaging rate and more versatile scan pattern selection was also developed.

The pulsed Doppler system measures the velocity of motion of reflectors within the ultrasonic beam at a selected range interval. When used in conjunction with a B mode echoscope to define the location of the range interval within the examined tissue and the orientation of the examined vessel, a quantitative measurement of blood flow is obtained. This system is being used in conjunction with the water coupling abdominal echoscope in a pilot study to measure blood flow in individual vessels within the body.

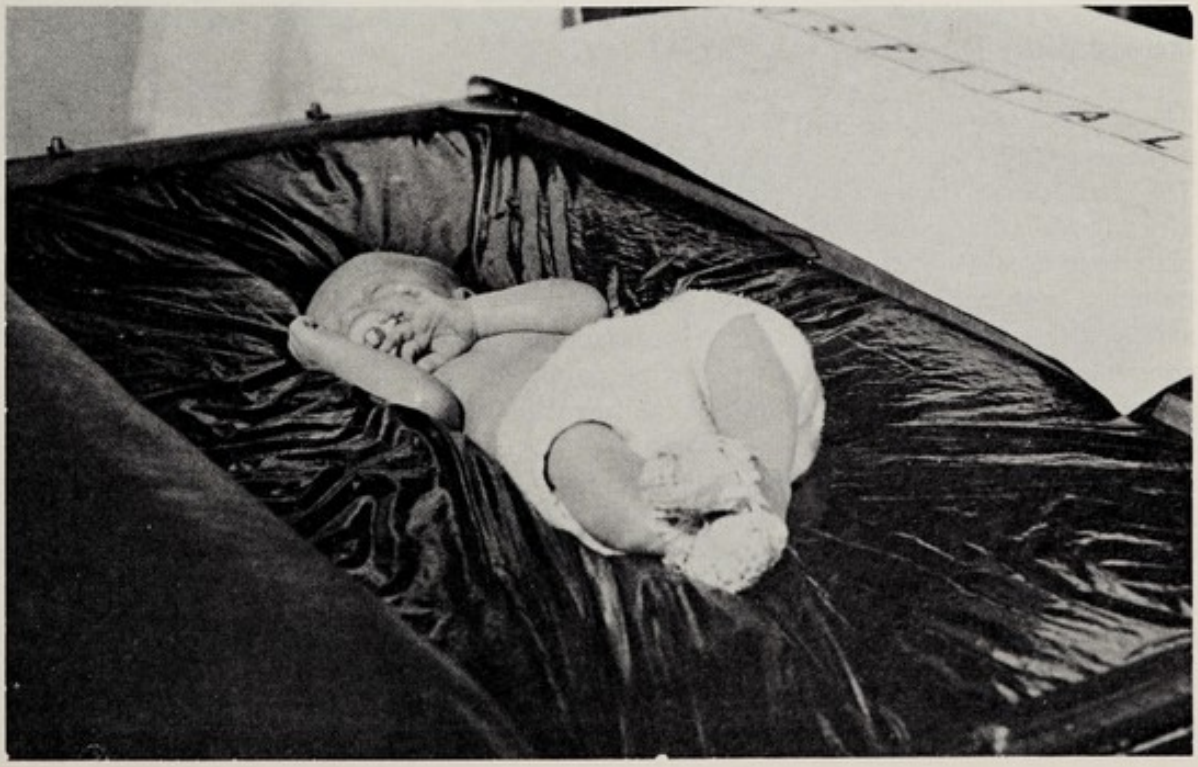
Echography

The Echography Section uses the methods devised and developed by the Advanced Techniques and Engineering Research Sections in clinical situations.

Evaluation of the U.I. Octoson continued at the Royal Hospital for Women. The machine is used to examine the pregnant uterus, abdominal organs and the infant brain. The skin contact and water coupling abdominal echoscopes continued to be used at the Royal Hospital for Women for obstetrics and gynaecological examinations and investigations of the liver and kidneys. Signal processing and display techniques were developed to allow the examination of the vascular and ductal systems of the kidney, liver and spleen.

The breast echoscope installed at the Royal North Shore Hospital was used for the examination of the breast, thyroid and testicles. In the breast, further work was carried out on differential classification criteria for diagnosis and abnormalities larger than a few millimetres can be visualised and evaluated. The echoscope can also be used to differentiate between normal tissue and tumours in the testicles. The thyroid project included comparison of results obtained using different ultrasonic parameters

A baby is examined with the newly developed U.I. Octoson. This ultrasonic echoscope, developed by Ultrasonics Institute researchers and now being manufactured for overseas distribution, uses a coupling technique which has completely removed the need for any injection of contrast medium or for sedation of the baby before examination.



on the eye echoscope and with radioisotope scans. The infrastructure and abnormalities of the thyroid and parotid glands can be recognised.

Using the eye echoscope at the Royal Prince Alfred Hospital, development of diagnostic criteria for classification of retrobulbar lesions continued with emphasis on vascular lesions. The path of blood vessels in the orbit was traced successfully and a trial program for assessing possible patients for vitrectomy was commenced. This echoscope is being modified to visualise the pulsating carotid arteries.

The M mode heart echoscope was used clinically at the Prince Henry Hospital with emphasis on aortic valve disease. The two newly developed echoscopes are being evaluated clinically and optimised to give a more complete and accurate representation of the left ventricle. The equipment is used by a full-time cardiologist and technician working under a National Health and Medical Research Council research grant.

Biology

In the Biology Section, histological examination of the inner ear was used to find the extent of tissue damage caused by ultrasonic irradiation applied in the surgical treatment of Meniere's disease. Investigations were undertaken to determine the safety margins for low level pulsed diagnostic ultrasound. It is not known which tissues or organs are more sensitive to damage from ultrasonic irradiation of this type. In one project the effect of excessive levels of diagnostic ultrasound on the rate of mitotic index in cell division in regenerating liver tissue was investigated following whole organ irradiation. A further project involved a specific site of irradiation where a point target on the retina of the eye is irradiated. Preliminary results indicate that the threshold for damage was not reached in either case, even though the levels were far in excess of those used in diagnosis.

The Institute continued to service and provide on request, ultrasonic surgical probes and generators for the surgical treatment of Meniere's disease and laryngeal papillomatas.

Australian Radiation Laboratory

The services provided by the Australian Radiation Laboratory include advice on the physical aspects of medical radiology, including radiotherapy, and nuclear medicine. The Laboratory maintains official Australian standards for the measurement of ionising radiations and of radioactive substances. It procures and distributes all radiopharmaceuticals used in Australia for diagnostic investigations and treatment of patients, and performs quality assurance tests on these materials. The Laboratory also keeps a watch on the levels of radioactivity in the Australian environment. A consultative service on the protection of people against ionising radiations, microwaves and lasers is also provided. These scientific services are supported by research and development within the Laboratory.

Research included the measurement of X-rays emitted by colour television receivers and the evaluation of the safety of domestic microwave ovens. The Director of the Laboratory gave evidence before the Ranger Uranium Environmental Inquiry on the requirements of the Code of Practice on Radiation Protection in the Mining and Milling of Radioactive Ores.

Construction of new premises for the Laboratory in the Melbourne suburb of Yallambie was approved during the year and the Minister for Health announced that building will begin in the financial year 1976-77.

Radiopharmaceuticals

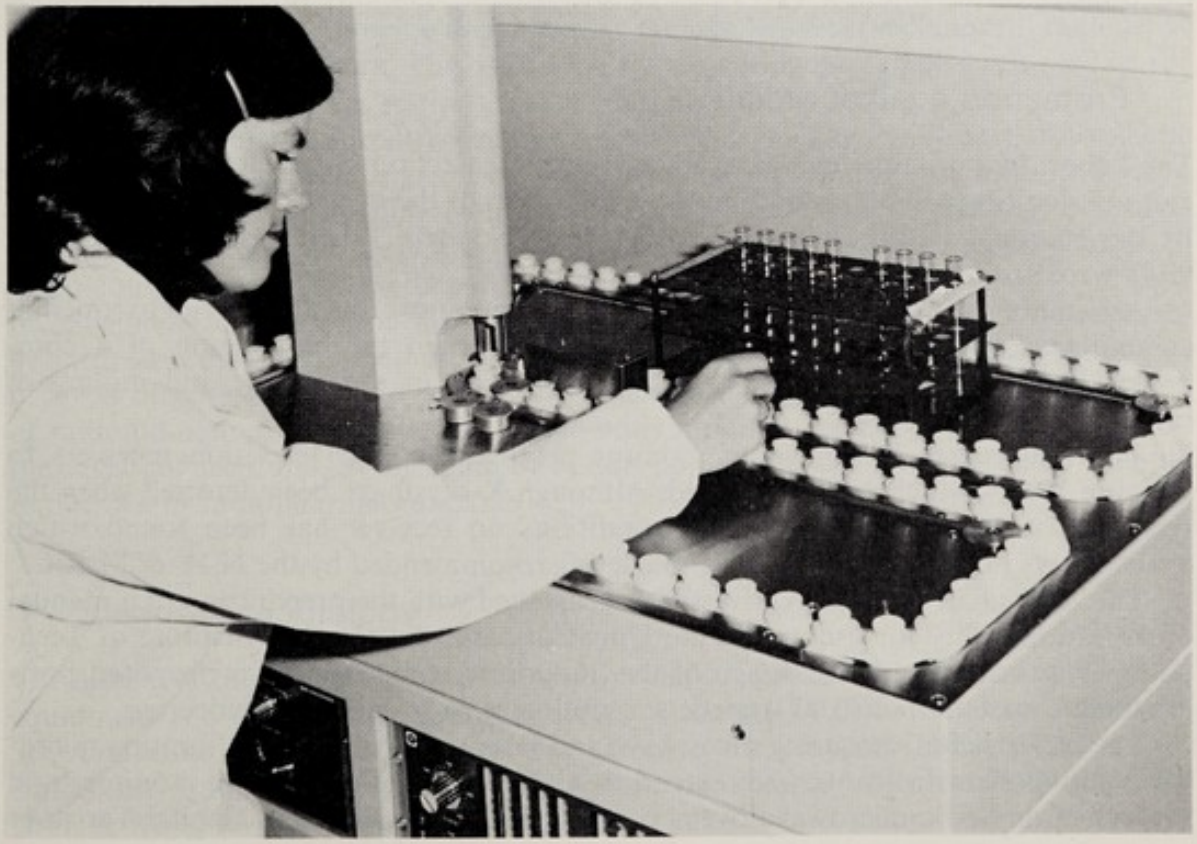
The Laboratory is the central procurement authority for radiopharmaceuticals used in Australia for medical diagnosis and treatment. Some 90 per cent of all shipments received at the Laboratory come from the Australian Atomic Energy Commission, the remainder are imported from Europe, India, Israel and the United States. Radiopharmaceuticals provided for established routine medical purposes are issued free of charge, the cost being borne by the National Welfare Fund. Expenditure for the year was $2 762 833.

Radiopharmaceuticals received at the Laboratory are tested for chemical and radiochemical purity as part of a continuing program of quality assurance, and all radiopharmaceuticals prepared at the Laboratory (or dispensed from bulk solutions) are tested to ensure that they meet product specifications. The Laboratory maintains close contact with users for feedback on the clinical performance of all radiopharmaceuticals.

The number of new radiopharmaceuticals for which approval was sought, either for general distribution or for clinical trials, continued to grow during the year. The Laboratory also developed new materials and techniques and a new radiopharmaceutical, ethane 1-hydroxy 1-1 diphosphoric acid (EHDF) labelled with technetium-99m, was developed at the Laboratory for bone-scanning. Clinical trials of this material were approved and will be conducted in the Alfred Hospital and the Prince Henry's Hospital, Melbourne. The new radiopharmaceutical has several advantages over the labelled polyphosphate currently in use for the same purpose.

The Laboratory supplies radioactive *in vitro* diagnostic materials including a range of radioactive *in vitro* kits. (Under a policy change to take effect on 1 July 1976, the

A technical officer at the Australian Radiation Laboratory, Melbourne, Ms Sue Williams, uses an automatic gamma ray recorder which aids in quality control of radiopharmaceuticals to be used for diagnostic tests in hospitals and clinics throughout Australia.



Laboratory will no longer procure and distribute to users radioactive *in vitro* kits.) The performance of thyroid kits distributed by the Laboratory is monitored regularly. Other materials and kits are monitored less frequently. The Laboratory maintains close contact with users, both to assist them with problems and to receive feedback on any irregular behaviour of these materials. During the year an evaluation of several commercial vitamin B12 kits was completed. Several suppliers also submitted manufacturing and quality control information on their thyroid radioimmunoassay kits for evaluation.

Field assessment of the performance of radioactive *in vitro* materials is greatly assisted by the National Quality Evaluation Program instituted by the Laboratory in January 1974. The assessments provide useful information to the Laboratory and help users maintain standards in reporting results of *in vitro* diagnostic tests of these materials. Routine surveys conducted by the Laboratory include T3 uptake, thyroxine normalised thyroxine ratio, T3 RIA, digoxin, insulin, vitamin B12 and human growth hormone.

Radium and radon

The Laboratory is responsible for the care and maintenance of some ten grams of radium owned by the Commonwealth Government and for the care and maintenance of Government-owned medical applicators containing strontium-90. Some of the radium is held in solution to provide a source of radon for the maintenance of the radon service operated by the Laboratory. The Laboratory is assisting a private project to collect surplus, privately-owned radium in Australia and to transfer it as a gift to hospitals in Indonesia for the treatment of cancer.

A radon service is operated in Queensland, making use of radon produced by a solution of radium held at the University of Queensland. This solution will shortly be transferred to the Queensland Radium Institute. As the solution contains radium owned by the Commonwealth, Government officers of the Laboratory will assist with the transfer of the solution.

Protection against radiation

The Laboratory provides technical advice on the protection of people against ionising and non-ionising radiations and on the application of the codes of practice published by the National Health and Medical Research Council. When appropriate, on-site visits were arranged.

Assistance was given to a working panel appointed by an inter-departmental committee convened by the Department of Health in the completion of a comprehensive code of practice on radiation protection in the mining and milling of radioactive ores.

The Laboratory continued to monitor prototype colour television receivers to measure X-rays which may be emitted. Although X-rays have been detected when the receiver was operating under 'fault' conditions no receiver has been found which emits X-rays in excess of the permissible levels recommended by the N.H. & M.R.C.

The Australian National University was assisted with the preparation of a manual on radiation safety for use within the University and the Gordon Institute of Technology was helped with the design of the 'radiation' component of a proposed postgraduate course in industrial hygiene for graduates in science or engineering.

The facilities for measuring microwave and laser radiations and calibrating microwave and laser instruments were extended. Calibrations of microwave monitors and surveys of domestic microwave ovens continued. In the Australian Capital Territory

57 domestic microwave ovens were surveyed for the Capital Territory Health Commission. Nearly half of these ovens emitted microwave radiation in excess of the reference standard published by the N.H. & M.R.C. and appropriate action was recommended in each case.

The work with lasers included the design of absolute radiometric standards for measurement of laser power, the design of equipment for testing linearity of monitors, investigations on measurements with pulsed lasers and the development of inexpensive stable light sources for field use in checking the performance of laser monitors.

Personal radiation monitoring

The Laboratory provides personal monitoring services using film-badges and small thermoluminescent dosemeters (TLD). During the year 96 793 films and 2720 TLD were assessed. Computer methods are of great assistance in this work and, in addition to increasing the efficiency of the routine work, have enabled a statistical survey of the radiation doses received by various categories of radiation workers to be made. The results of the survey were sent to the United Nations Scientific Committee on the Effects of Atomic Radiations. Similar statistical surveys are planned with a view to determining those occupations subject to the higher levels of dose so that action can be taken to reduce those levels.

Radioactivity in the environment

The Laboratory has a responsibility to evaluate sources of contamination of the Australian environment with radioactive substances and to estimate the radiation exposure of the population arising from these sources, whether natural or man-made.

In 1975 France did not resume testing of nuclear devices in the atmosphere so that no monitoring of fresh fission products was carried out. Nevertheless, the technical capacity for full-scale monitoring of fresh fission products at short notice was retained. Such monitoring depended on the results of surveillance of radioactive material in the atmosphere. This was done by measuring air samples returned to the Laboratory weekly by six stations located throughout Australia.

Monitoring of long-lived radioactive substances associated with past atmospheric nuclear testing, has been carried out for 20 years. A program is in hand to extract as much information as possible from the data obtained. These monitoring programs will continue and allied programs for improving and extending the already sophisticated equipment and methods used are being implemented.

Hospitals in Melbourne are making more use of the Laboratory's whole-body monitor as a diagnostic method. It is particularly useful for the measurement *in vivo* of levels of potassium in the body and it is also proving its use in the measurement of radioiodine in the thyroid. The whole-body monitor has also been used to assess the levels of caesium-137 in samples of the population and to detect and identify impurities in radiopharmaceuticals.

Diagnostic radiology

The advice of the Laboratory was sought on the specification and selection of X-ray equipment for Canberra Hospital, Calvary Hospital (A.C.T.) and the Australian School Dental Scheme. Assistance was given to the practical requirements of the survey on radiation doses to the Australian population being conducted for the N.H. & M.R.C.

National standards

In 1965 the Commonwealth Scientific and Industrial Research Organisation, acting under the Weights and Measures (National Standards) Act, appointed the Director of the Laboratory as its agent to maintain national standards for the measurement of X and gamma rays and of radionuclides. The availability of these standards assists in obtaining reliability and accuracy in the treatment of patients through their use in the calibration of secondary instruments.

The performance of the Laboratory equipment is continually under review. Studies are proceeding on the design, construction and performance of aluminium and graphite cavity chambers for the accurate measurement of the gamma radiation from cobalt-60.

There has been a steady demand for standardised solid radionuclide sources and standardised radionuclide solutions for use as reference standards in the calibration of equipment. The feasibility of using a Ge(Li) semi-conductor detector as a secondary standard for the measurement of the activity of gamma-ray emitting radionuclides is being investigated.

Radiation dosimetry

The calibration of portable clinical dosemeters for use in hospitals and clinics has continued. The Laboratory has taken part in an international 'postal survey' conducted by the International Atomic Energy Agency and the World Health Organization as a joint project. Final results are not yet available. Much time has been given to the survey, being undertaken for the N.H. & M.R.C., to determine the genetic and mean bone marrow doses to the Australian population arising from the medical, dental and chiropractic use of X-rays and of radioactive substances.

Australian Dental Standards Laboratory

During 1975-76, the Australian Dental Standards Laboratory continued its major role of research into and testing of dental materials. It also expanded its activities into appropriate areas in the medical field.

Australian standards

As one of its basic functions, the Laboratory continued to provide data enabling the Standards Association of Australia to revise, metricate and initiate new standards for dental and medical materials.

Standards completed and sent for publication include:

Dental standards

Dental modelling compound
Dental agar impression material
Dental impression paste
Dental wrought gold alloys
Dental casting gold alloys
Dental zinc oxide—eugenol materials
Dental excavating burs
Dental root canal files and reamers
Dental gutta-percha root canal points
Dental operating luminaires (lights) for oral illumination

Dental die stone
Dental gold solder
Dental silver solder
Orthodontic wires, resilient

Medical standards

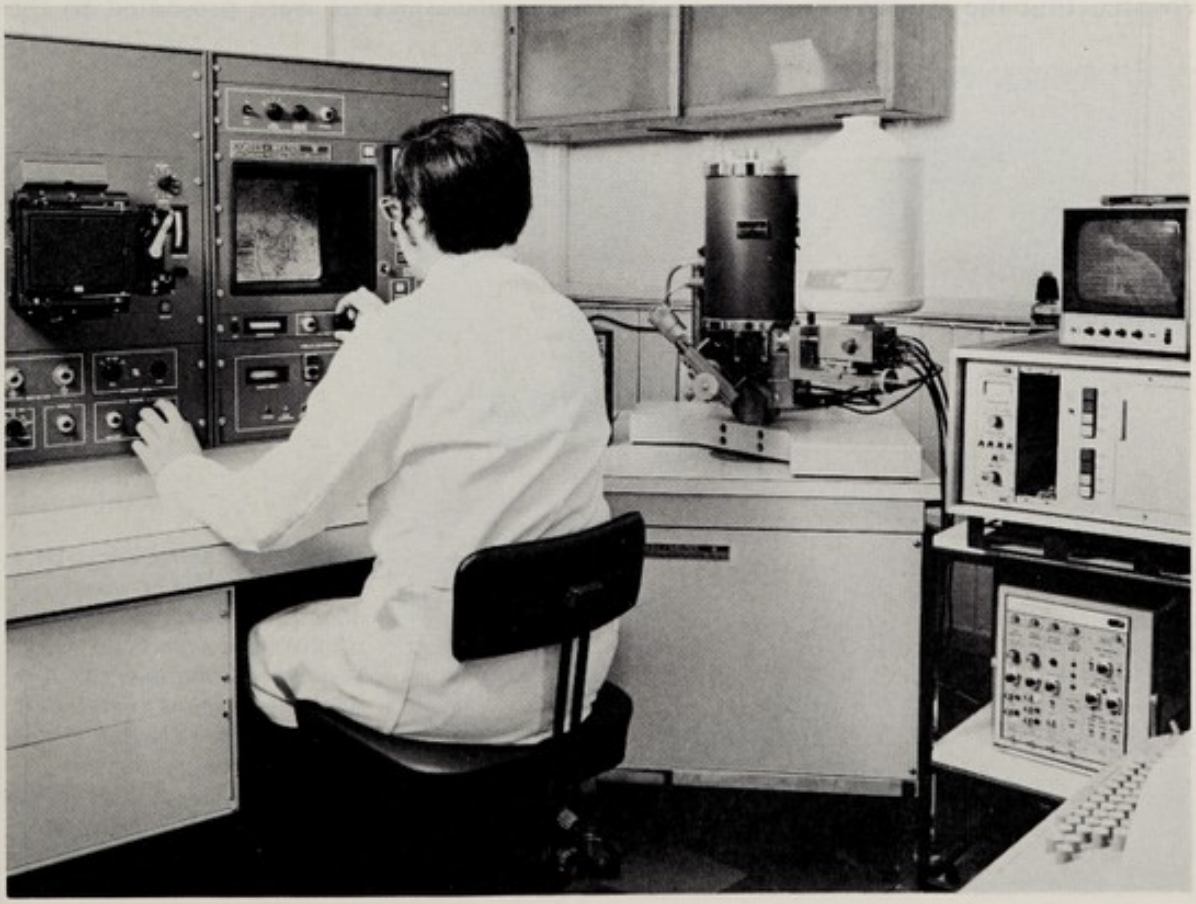
Re-usable hypodermic needles for general medical use
Single-use hypodermic needles (sterile) for general medical use
Single-use syringes (sterile) for general medical use

Standards of particular interest and importance have been those concerned with single-use and reusable hypodermic needles and sharpened tubing. The concept of a standard for sharpened hypodermic needle tubing was initiated by the Laboratory. A standard for polycarboxylate cements, which have been shown to have increasing importance in dental applications, is being prepared.

Testing and research

Most dental materials used by the dental profession in Australia are imported from other countries. Throughout the year, the Laboratory continued its task of evaluating such materials. These materials are submitted by manufacturers, distributors and, in some cases, dental practitioners. The evaluations help ensure that only high grade materials are used in dental practice in this country.

Director of the Australian Dental Standards Laboratory, Dr D. R. Beech, operates the Laboratory's scanning electron microscope to which an X-ray energy spectrometer was recently attached. This accessory enables the presence of various elements in the material being examined to be determined and displays the results on a television monitor or prints them out automatically.



In 1975-76, it was necessary to provide factual information on two occasions following misleading newspaper reports. In one case exaggerated claims for a new type of restorative material were made. The other concerned a British report on the level of radioactivity emitted from porcelain teeth. It was incorrectly reported in the press that radioactivity from these teeth exceeded the maximum permissible dosage. Another research project undertaken during the year concerned the methods of production of mouthguards used in contact sports. Other projects included evaluation of electric toothbrushes, direct filling composite resins, properties and manipulation of modern high copper dental amalgam, high temperature strength of dental investments, bonding of porcelain to metals and analysis of the components of denture base resins.

An X-ray energy spectrometer attachment to the scanning electron microscope is proving invaluable for investigating metallic materials used in dental practice.

The extension into the medical field during the year included the testing of hypodermic needles, syringes, catheters, blood transfusion equipment and scalp vein needles. Work continued for the Australian Dental Association in support of its certification scheme for dental materials. The Laboratory recommends that only certified materials are used by the dental profession.

The Laboratory also continued to provide a mercury vapour testing service and many dental practitioners availed themselves of it. High levels of mercury were found in several dental surgeries and advice was given on its elimination.

International standards

During the year, the Laboratory played a prominent part in the production of uniform international standards. A member of the staff led the Australian delegation to the Federation Dentaire Internationale (FDI) and International Standards Organisation (ISO) meetings in Chicago in November 1975. The presence of this delegation ensured that the Australian views on international standards were presented to the

Principal Chemist, Mr J. de Freitas operates an atomic absorption spectrophotometer which can detect very small quantities of elements present in materials. The Australian Dental Standards Laboratory, in Melbourne, has a wide range of sophisticated equipment for the analysis of dental and related materials.

Organisation. The recently appointed Director of the Laboratory has replaced the previous Director as a member of the Commission on Dental Materials, Instruments, Equipment and Therapeutics (COMIET) of FDI and will present the Australian viewpoint on international specifications to the Commission.

Advisory services

Another function of the Laboratory is the dissemination of data by way of a telephone and correspondence advisory service, lectures, courses, symposia and practical demonstrations. Two staff members lectured and gave practical courses to dental societies in Queensland and three members provided a working, participatory exhibit at the Australian Dental Congress in Adelaide. This exhibit was attended by a large number of dentists who were provided with facilities to check their manipulation of dental materials. It was extremely well attended and appreciated by all who availed themselves of the service. Throughout the year, staff gave lectures to dental groups and contributed to the training of dental nurses, defence services technicians and dental assistants. Three members of staff and a dental lecturer ran a two-day course on recent advances in dental materials.

Staff and accommodation

Dr Derrick Beech, formerly Lecturer in Dental Materials Science at the University of Manchester was appointed Director in May 1976 following the retirement of Mr A. L. Ware.

The Laboratory will soon be housed in a new building at Abbotsford, Melbourne. This building has about four times the area of the present premises and will greatly facilitate future development of the Laboratory's activities.

National Biological Standards Laboratory

Restraints on recruitment, which have been found necessary by successive administrations, bear heavily on specialised scientific institutions like the National Biological Standards Laboratory. This occurs because staff with the necessary skills are difficult to locate in the relatively small Australian scientific community and the period of recruitment is therefore unusually long by Public Service or any standards.

During the last five years, few staff have been recruited and the work load on the laboratory has increased at a greater rate than the staff required for its performance. The cumulative effect on the laboratory is clearly apparent this year. The volume of product testing has fallen again (to about 15 per cent of the peak year 1969-70). On the other hand the number of product evaluations and the depth to which these have to be made, has continued to increase.

Although the number of inspectors has not changed, the number of inspections carried out has increased slightly and would have been greater if there had been no restraints on travel expenditure. The program planned for development of standards (i.e. meeting of expert committees etc.), could not be realised because of lack of funds. There were ten meetings out of a scheduled twenty-three.

Inspection Unit

Joint inspections of pharmaceutical companies by Commonwealth and State officers continued in New South Wales and Victoria where a total of 237 inspections were carried out. Restrictions on travel prevented inspections being made in other States.

The inspection team continued to advise companies regarding the acceptability of new buildings and alterations to premises from the viewpoint of good manufacturing practice. Five organisations consulted with the inspection unit during the year. The Chief Inspector assisted a committee of the Standards Association of Australia to prepare specifications for clean rooms, clean work stations and controlled environments. A number of the standards prepared by this committee have now been published.

A Sub-committee including senior officers from the N.B.S.L., State inspectors and representatives of the National Council of Chemical and Pharmaceutical Industries has updated the five-year-old Code of Good Manufacturing Practice to reflect recent advances.

Viral products

Building of additional accommodation for the Viral Products Section was completed during the year and has relieved some overcrowding problems. The accommodation includes two new laboratory rooms and two animal isolation suites, and has allowed

expansion of urgently-needed developmental work on contagious virus diseases of poultry.

The level of testing of vaccines was lower than last year, partly due to shortages of staff, and partly due to the increased allocation of resources to the extensive battery of regular testing which must be performed on the growing number of specific pathogen free (S.P.F.) poultry held at the Laboratory. The S.P.F. poultry colony now produces about 250 S.P.F. eggs per week, and these are used for the testing of vaccines for the presence of leukosis viruses. The eggs are also used for the preparation of a variety of special reagents and reference materials which will be used in the production and testing of several avian virus vaccines according to general standards which have recently been developed. S.P.F. eggs have also been provided to manufacturers to assist them to upgrade the quality of avian vaccines and to develop new strains of virus for use in the manufacture of influenza vaccines.

The evaluation of the protocols of production and testing of existing and new viral vaccines, and the evaluation of scientific problems arising out of the Section's advisory role within the Commonwealth Department of Health, continued at previous levels, and a total of 40 evaluations was made.

In the development of standards for viral vaccines, sub-committees on Inactivated Influenza Vaccine, Marek's Disease Vaccine, Infectious Bronchitis Vaccine, Infectious Laryngotracheitis Vaccine, and Avian Mycoplasma Diagnostic Antigens; and the Working Party on General Standards for Avian Vaccines, met during the year. The preparation of draft standards and the extensive experimental work on which standards must be based has continued within the Section.

The development of new methods and techniques for testing viral vaccines continued. A study of the stability of measles vaccines is nearing completion, and methods have been developed for the potency assay of individual components of combined measles-mumps-rubella vaccines, which are gaining widespread acceptance overseas.

Problems and changes in manufacturing techniques, and the emergence of new epidemic strains of influenza virus, have required further developmental research on influenza vaccines. In particular, methods were developed by the Section for preventing the loss of the neuraminidase antigens of influenza virus during manufacture. The assay of vaccine potency, which is a world-wide problem, was also studied. Following the demonstration by the Section of the role of formaldehyde in hindering disruption of virus during manufacture of sub-unit vaccines, formaldehyde has also been shown to interfere with the assay of potency by the radial immunodiffusion technique. This problem has not yet been resolved.

Reports of breakdowns in the effectiveness of avian infectious bronchitis vaccines are not uncommion, and a possible explanation for such breakdowns has emerged from studies by the Section of the serological relationships between many strains of this virus obtained from other laboratories. Reproduceable methods for selecting and purifying plaque forming strains of these viruses were developed, and these strains were then used to prepare monospecific antisera in S.P.F. chickens. The examination of these sera has revealed the existence of at least seven serotypes of infectious bronchitis viruses in Australia, which suggests that effective vaccination against the disease they cause may require the use of polyvalent vaccines.

The production of reference preparations of diagnostic reagents and potency standards has continued.

Bacterial products

The sterilisation and sterility testing of therapeutic goods are an important safety aspects of quality assurance, to which great attention is paid by government inspectors

of pharmaceutical manufacturers. However, the manufacturing facilities and methods used to produce pharmaceutical products imported into Australia cannot be inspected, and detailed evaluation of protocols is therefore necessary. Such evaluations have recently increased substantially in numbers.

Many batches of both imported and locally manufactured sterile products are tested for sterility at N.B.S.L. and this activity has generated a considerable body of information on the incidence of microbial contamination and problems associated with such testing.

Recent statistical evaluations of test results have suggested that the type of culture medium and the temperature of incubation may be more important than previously believed. A study of the growth characteristics of organisms isolated during testing has therefore been initiated. All such organisms are preserved for future comparison with each other. This, it is hoped, will also permit the identification of special problems in particular products, plants or manufacturing processes associated with low levels of contamination which are difficult to detect, confirm or study. Gross failures of sterility are, fortunately, very rare these days but low levels of contamination are potentially hazardous when there is mass production of large batches of goods intended to be sterile.

The Brucella Laboratory, which was established for the control of the quality of vaccines and diagnostic antigens to be used in the brucella eradication campaign is now operating as intended during design. When sufficient S.P.F. guinea pigs become available and staff numbers are increased to cope with the additional work, the testing of vaccines and diagnostic antigens will begin. In the meantime, the special facilities of the Brucella Laboratory have been used to develop 'high yield' recombinant strains of influenza virus for use in production of the A/Victoria component of influenza vaccine. This was a successful collaborative exercise involving scientists from the Australian National University, the Viral Products Section of N.B.S.L. and the Commonwealth Serum Laboratories.

The last year has also seen a major expansion in work related to the preparation and evaluation of reference preparations used in the assay of several bacterial products, including tuberculins, clostridial vaccines and salmonella pullorum antigens. Many such preparations must be standardised against international standards, but others must be developed to meet special needs within Australia. In addition, the Section now holds a collection of micro-organisms for use in sterility testing procedures.

In all, approximately 80 ampoules of reference preparations or cultures were issued during the past year, a threefold increase over the previous year.

Pharmaceutical chemistry

The regular testing of products available as pharmaceutical benefits was reduced and effort concentrated on products proposed to be listed as pharmaceutical benefits and on investigation of complaints regarding alleged substandard products. Experimental work on standards was less affected and progress has been made on developing better methods for testing of oral contraceptives. Methods for assaying steroid creams and ointments by high pressure liquid chromatography have been brought to an advanced stage. Single tablet assays using an automated ultraviolet spectrophotometer, have been applied to a survey of the content uniformity of prednisolone and prednisone tablets. A parallel study of dissolution behaviour has been carried out on the same tablets. These studies have cleared the way for N.B.S.L. to collaborate in planning a program of bio-availability studies, which will enable the *in vivo* behaviour to be correlated with the dissolution results obtained *in vitro* by the laboratory.

A substantial revision and extension of the list of Australian Approved Names for therapeutic substances was carried out during the year, taking into account a large

Dr Alan Pomeroy of the Pharmaceuticals Section of the National Biological Standards Laboratory, at work in the recently completed radioisotope room at the Institute of Anatomy. The equipment measures radioactivity and is mainly used for radio-immunoassay and bio-availability studies where minute concentrations of drugs and hormones are involved.

number of changes in the United States Adopted Names and the publication of an addendum to the British Pharmacopoeia. An additional list arranging synonyms in alphabetical order has also been prepared for easy reference. The names list will eventually be an essential element for orders on labelling. It also provides a basis for data collection and reference systems by eliminating confusion regarding the chemical identity of products.

The drafting and editing of standards and activities such as the drafting of guidelines for bio-availability studies occupy an increasing proportion of the Section's total work. The evaluation of chemical and quality control aspects of applications for general marketing of new drugs for clinical trials, for imports and for pharmaceutical benefits listing continues to increase in volume.

Animal breeding

A major development in the activities of the Animal Breeding Section has been the commissioning of the S.P.F. guinea pig breeding area, which is part of the Brucella Laboratory. S.P.F. guinea pigs, to form the breeding nucleus of the colony, arrived from the United States in April and are being kept initially in special germ-proof isolators. The first young from the colony are expected in late 1976.

An essential aspect of the S.P.F. regimen is the regular monitoring of animals to detect contamination with pathogenic micro-organisms. A small veterinary pathology laboratory, designed especially for this work, was completed earlier in the year. This laboratory will also be used for the diagnosis and control of disease in conventional animal colonies.

With the introduction of germ-free and S.P.F. techniques and more efficient overall disease control and breeding programs, the scientific skills of the staff need to be extended and their knowledge of small animal husbandry deepened. The Section is collaborating in the development of a new four-year certificate course for the Canberra Technical College.

Antibiotics

The Antibiotics Section has continued its checking throughout the year of the quality of antibiotic products on the Australian market and of new products introduced during the year as pharmaceutical benefit items. The Section has participated with sections of the pharmaceutical industry in collaborative studies to resolve difficulties with reference substances, for gentamicin and erythromycin. The Laboratory's reference standards are supplied to the quality control laboratories of pharmaceutical firms marketing antibiotics.

Developmental work has been carried out on standards for certain preparations of tetracycline (completed) phenoxymethyl pencillin oral suspensions (nearly completed) and antibiotic sensitivity discs. The latter work is well advanced.

Pharmacology

This Section has continued its studies on the bio-availability of drugs requiring radio-immunoassay for their determination in body fluids. It has also been required to become involved in the preparation of standards for radiopharmaceuticals and radio-diagnostic agents. A radionuclide suite, completed recently, contains counting and other equipment essential for this work.

Previously, colourings used in pharmaceutical preparations were restricted to those permitted in foodstuffs. It has now been accepted that the criteria for approval of colourings for these two uses are different. Data on additional colourings will be examined by officers carrying out drug evaluations and reported to the Food Science and Technology (Reference) Sub-Committee of the National Health and Medical Research Council.

The evaluation of pharmacological and toxicological aspects of new drug submissions has continued throughout the year. Assessments of submissions for early clinical trials of new drugs have been carried out within 60 days of receipt in accordance with the Department's undertaking to the pharmaceutical industry.

Medical Insurance Services Division

Fees and Benefits Review

The Branch was heavily committed this year to revision of fees for items in Schedule 1 to the Health Insurance Act, development of medical benefit statistics and review of expenditure.

Medical Benefits Schedule fees reviews

The terms of reference of both the 1974 Private Inquiry on Medical Fees and the May 1975 Interim Private Inquiry provided that Schedule fees were due for review and adjustment from 1 January 1976.

Following an announcement by the Australian Medical Association in September 1975 that an increase in fees was justified on economic grounds from 1 January 1976, arrangements were made for the establishment of the Second 1975 Private Inquiry on Medical Fees for Medical Benefit Purposes. Mr N. H. McIntosh, who conducted the two previous private inquiries, was appointed by the Government to conduct the inquiry.

Briefly, the terms of reference for the Second 1975 Private Inquiry provided for the determination of fees for items of service listed in the April 1975 Medical Benefits Schedule, to apply from 1 January 1976 to 31 December 1976. Provision was also made for an earlier review in 1976 if sought by the A.M.A. The Department and the A.M.A. participated in the inquiry, lodged major submissions and were represented at a conference with the inquiry.

The inquiry determined on 24 October 1975, that fees should be increased by 20.5 per cent from 1 January 1976 and should apply to 31 December 1976. The increase was equivalent to a 15.6 per cent increase on fees determined by the May 1975 Interim Private Inquiry which applied from 1 July 1975. The overall increase determined of 20.5 per cent compared with the 28.25 per cent increase sought by the A.M.A. The Government accepted the determination and the report was made public.

The inquiry noted that some progress had been made by the Department and the A.M.A. in attempting to improve the methods of adjusting doctors' fees but that a great deal more work was necessary. It recommended that the Department and the A.M.A. continue to discuss ways of improving these methods.

Optometrical Benefits Schedule fees review

The arrangements for reviewing fees for optometrical consultation items contained in Schedule 1 to the Health Insurance Act provide that where agreement cannot be reached with the Australian Optometrical Association, the matters would be determined by independent private inquiry.

The Branch discussed with the A.O.A. in November 1975 adjustments necessary to optometrical consultation fees from 1 January 1976. Agreement was reached with the A.O.A. and there was no necessity to establish an independent inquiry. Accordingly, optometrical consultation fees were increased by 13.3 per cent from 1 January 1976 to apply to 31 December 1976. It was envisaged that a further review of these fees would be made during 1976 in the event that schedule fees for medical services were reviewed.

Statistics and estimates

The Branch worked closely with the Health Insurance Commission in refining and further developing systems to produce statistics on medical and optometrical consultation benefits. A range of useful data became available during the year.

The Branch also worked closely with the Health Insurance Commission in continually reviewing Medibank expenditure on medical and optometrical consultation benefits which took account of the increases in benefits from 1 January 1976. This was particularly important during the first year of Medibank's operation. Towards the end of the year work was undertaken to prepare estimates of Medibank expenditure in 1976-77 under the new arrangements to operate from 1 October 1976.

Pathology Services Working Party

The Fees and Benefits Review Branch is providing the secretariat for a Pathology Services Working Party to review Medibank fees and benefits in the pathology field. The working party was set up following a recommendation from the Medibank Review Committee. The review was to be in two phases. In the first phase it was to report on what changes could be made in the short term.

The working party is proceeding with its second phase, and it has been asked to report by the end of 1976 on what action might be taken in the long term.

Fees and Benefits

Adjustments to the Medical Benefits Schedule

The Medical Benefits Schedule was amended with effect from 1 January 1976. The primary purpose of this amendment was to increase the schedule fees and benefits flowing from the inquiry conducted by Mr N. H. McIntosh during the latter half of 1975. At the same time, a number of changes arising from recommendations of the Medical Benefits Schedule Revision Committee were introduced. These were designed to correct anomalies in the fees for some services, to clarify the descriptions of others and to provide for several services not adequately covered in the former Schedule.

The Division has been exploring ways of producing the Medical Benefits Schedule book more quickly, efficiently and economically, and a limited number of copies of the book in a new format was prepared early in 1976. The new format consolidated the fees and benefits for each service in the various States into a single consolidated 'all States' version. It is proposed to reprint the book in the new format in conjunction with the changes to Medibank from 1 October 1976.

Medical Benefits Schedule Revision Committee

This committee is an informal committee established under arrangements made in 1975 between the then Minister for Social Security and the Australian Medical Association. It comprises four representatives of the Association and four Commonwealth officers.

The main functions of the committee are to investigate matters referred to it by the Minister and to make recommendations to him on the Medical Benefits Schedule. The committee investigates such matters as the need for new items in the Schedule, anomalies in fees for particular services and advises the Director-General on interpretations of the Schedule and desirable administrative actions.

The committee met seven times during 1975-76. Recommendations made at its first three meetings became effective with the changes to fees and benefits on 1 January 1976. Further changes arising from subsequent meetings will be included in the Schedule as from 1 October 1976.

Medical Benefits Advisory Committee

The committee was established in accordance with the provisions of Section 66 of the Health Insurance Act. It comprises four medical practitioners nominated by the Australian Medical Association and four Commonwealth officers, including two medical practitioners. This committee considers claims received by the Health Insurance Commission for higher fees and benefits to cover unusually long or complex procedures. The committee met five times in 1975-76 and has made recommendations on 11 such claims.

Amending legislation passed by Parliament has extended the functions of the committee to enable it to advise the Minister on regulations precluding the payment of medical benefits for certain professional services which it considers should not qualify for benefits.

Practitioner Services

The Practitioner Services Branch consists of three sections, the Practitioner Services Section, Eligibility Section and the Registration Section.

The Practitioner Services Section administers the operation of the optometrical consultation benefit arrangements and the specialist recognition and referral systems. It services the Specialist Recognition Appeal Committee, the National Specialist Qualification Advisory Committee and associated Working Committee, the Medical Benefits (Dental Practitioners) Advisory Committee and Appeal Committee. It will service the proposed Optometrical Services Committee of Inquiry and Optometrical Services Review Tribunal.

Optometrical consultation benefits

Legislative amendments to the Health Insurance Act to provide benefits for optometrical consultations from the commencement of Medibank on 1 July 1975 received Royal Assent on 19 June 1975.

The new arrangements are a participating scheme, whereby Medibank benefits are payable for consultations by optometrists who have either given a written undertaking or are covered by their employer's undertaking.

The undertaking requires that consultations are to be provided at fees no higher than those set out in the Schedule to the Act, and that eligible pensioners and

dependants are generally to receive consultations at no direct cost to themselves, by means of assignment of Medibank benefits. The undertaking also covers a number of other matters, such as restrictions on advertising and reminder notices, and the exclusion of certain services from the scope of the arrangements. Medibank benefits are payable at 85 per cent of the Schedule fee with a maximum patient gap of $5, although certain special conditions and limitations are imposed on the payment of benefits.

It appears that most optometrists are participating in the benefit arrangements. As at 30 June 1976, 579 undertakings were in force in respect of 508 practice locations. The undertakings covered 849 optometrists in all.

Schedule fees: The Schedule fees for the four consultation items are approved by the Minister following negotiations with the National Council of the Australian Optometrical Association. The fees at the introduction of Medibank on 1 July 1975, which had operated from 1 April 1975, were revised with effect from 1 January 1976. The increase of 13.3 per cent from that date was based on economic movements over nine months.

Domiciliary charges: Patients who request an optometrical consultation in their home may be charged an additional fee up to the maximum specified in the common form of undertaking. The additional fee does not attract a Medibank benefit. In accordance with the provisions of Section 23A (3) of the Act, the Minister varied the common form of undertaking after consultation with the A.O.A. by increasing the maximum domiciliary charge from $3.50 to $4.50 with effect from 1 April 1976.

Visiting optometrists: Section 129A of the Act provides that the Minister may make special arrangements to ensure that an adequate optometrical service is available to people in isolated areas. This provision was included in the legislation because of the participating nature of the benefit arrangements, and the requirement that consultation fees be no higher than negotiated Schedule fees. Higher charges were generally imposed on rural trips prior to Medibank to offset the additional costs involved. Financial assistance was therefore considered necessary to ensure that patients were not deprived of existing services or benefits. All optometrists were advised of this provision at the commencement of Medibank, and those who sought assistance for rural visiting were requested to complete a questionnaire. Following consideration of the information supplied, general principles and procedures were drawn up and agreed in general terms with the A.O.A. in November 1975.

The proposals were basically that assistance should be provided in the form of per capita payments directly related to the numbers of patients attended, with individual rates approved for each applicant who met the criteria for assistance. Cost data supplied for 1974-75 was assessed in accordance with uniform standards, then halved on the basis that expenditure related equally to consultations and sales. The resulting figure in each case was applied to the number of patients, to arrive at per capita rates designed to reimburse reasonable expenditure incurred in relation to the consulting side of the visiting practice.

The Minister approved the proposals for assistance, including the principle that payments should be retrospective to 1 July 1975 because of the surcharges foregone since that date. Claim forms and payment procedures were forwarded to Divisional Offices in February 1976.

All applicants were advised that further information could be submitted if they disagreed with the decisions reached. A number of applications were subsequently re-assessed. At 30 June 1976, 53 of the 62 applications for assistance were approved.

Payment rates effective from 1 July 1975, ranging from 70 cents to $3.90 per patient, were increased by 15.6 per cent from 1 January 1976, in line with movements in the consumer price index. Payments totalling $44 694 were made in respect of assistance under Section 129A for 1975-76.

Committees of Inquiry: The Health Insurance Act provides for the establishment of one or more Optometrical Services Committees of Inquiry, and an Optometrical Services Review Tribunal. The role of these bodies is similar to that of the Medical Services Committees of Inquiry and Review Tribunal authorised by the Act. Because of the participating nature of the optometrical benefit arrangements, however, the optometrical committees' powers of inquiry may extend to such matters as fee charging and mode of practice of individual optometrists or firms.

It is considered likely that only one committee of inquiry will be necessary for the whole of Australia, subject to any problems which may arise in respect of the volume of references and/or geographical location. Although a committee had not been established at 30 June 1976, preliminary work had been carried out within the Division in the preparation of detailed proposals for discussion with the A.O.A. The objective of the discussions would be to achieve a broad consensus on the types of cases for reference to a committee and the procedures to be adopted. It would also be necessary to request panels of names for consideration for appointment to the committees.

A decision has yet to be made on the possible transfer of the functions of the Optometrical Services Appeal Tribunal, along with other appeal provisions under the Health Insurance Act, to the Administrative Appeals Tribunal Act.

National Specialist Qualification Advisory Committee

The National Specialist Qualification Advisory Committee has been established to promote uniformity in the acceptance of medical specialties and appropriate qualifications by specialist registering and recognising bodies throughout Australia.

The Committee comprises the presidents or chairmen of the State/Territory Medical Boards and representatives of the Federal Specialist Recognition Advisory and Appeal Committees. The Committee meets annually. Following the annual meeting, the Committee's recommendations on specialties and qualifications are published in a booklet titled *Lists of Recommended Medical Specialties and Appropriate Qualifications*. Copies are available from the Committee Secretariat, Department of Health, P.O. Box 100, Woden, A.C.T. 2606, State Offices of the Department and State Medical Boards.

The National Committee has no jurisdiction over the powers embodied in State or Federal legislation. The final responsibility for granting registration or recognition of a specialist remains solely with the appropriate authority in the State or Territory. Nevertheless, since the inauguration of the Committee in 1972, its recommendations have had far reaching effects on a national basis. The Committee's activities are unique in the areas of rationalisation, co-ordination and co-operation in the specialist field of medicine in Australia, as evidenced by the wide acceptance of its recommendations.

In order to make objective assessments of medical qualifications and related fields of specialist medical practice, detailed information concerning regulations, training programs and forms of examinations are obtained from the numerous awarding bodies in Australia and overseas. This 'bank of information' is maintained by the Secretariat of the National Committee in the Department's Central Office in Canberra, and extracts are available.

Benefits for services by approved dental practitioners

The *Health Insurance Act* 1973-76 provides for the payment of benefits for certain prescribed medical services when performed in the operating theatre of an approved hospital by a legally qualified dental practitioner approved by the Minister for the

purposes of the Act. The number of dental practitioners approved as at 30 June 1976 was 146.

Under Medibank, to 30 June 1976, medical benefits were provided for 83 prescribed medical services. These services are listed as items in the Schedule to the Health Insurance Act and do not include routine dental procedures such as the extraction of teeth or ordinary diagnostic or dental treatment procedures.

Applications from dental practitioners for approval for the purposes of the Act, are considered by a Medical Benefits (Dental Practitioners) Advisory Committee and, in the case of appeals, by a Medical Benefits (Dental Practitioners) Appeal Committee, which consist of dental practitioners nominated by the Australian Dental Association and appointed by the Minister.

Eligibility guidelines

Most of the work of the Eligibility Section involves the examination of policy matters and legislative provisions, and the provision of policy guidelines on eligibility matters relating to Medibank. The Section also prepared papers for the Administrative Review Committee and the Medibank Review Committee. Policy was formulated and implemented regarding the payment of benefits in third party and workers compensation cases, mass immunisation campaigns and cases where other entitlements existed, such as where Commonwealth or State authorities or employers would normally have met the expenses incurred.

The following are some of the areas which received special attention:

Eligible pensioners: Written requests continued to be made to doctors for eligible pensioners to be given the opportunity to assign their medical benefits to the practitioner. Where such assignments are agreed on, benefits are paid to practitioners by Medibank. About two-thirds of those who responded indicated that they were prepared to accept assignment.

Australian visitors overseas: Assistance was provided to the Health Insurance Commission in determining eligibility of Australian residents for benefits for medical and hospital treatment received while overseas. Discussions are proceeding with a view to having the Commission take over the handling of such claims.

Visitors to Australia: Consideration was given to methods of providing health insurance coverage to overseas visitors. However, work in this area has now ceased as a result of the new Medibank arrangements effective from 1 October 1976 whereby overseas visitors to Australia will no longer be automatically covered by Medibank.

Fringe benefits: The matter of fringe benefits for pensioners who come within the Pensioner Health Benefit means test was also examined in consultation with officers of the Department of Social Security. A review is continuing.

Registration of medical practitioners

The Registration Section records particulars of registration of all medical practitioners in Australia to facilitate payment of medical benefits under Medibank and the formation and servicing of Medical Services Committees of Inquiry.

A computer-based register lists all registered medical practitioners, participating optometrists and approved dentists in Australia for the purpose of the Health Insurance Act. In the case of medical practitioners the total number of registrations includes some doctors who have retired or live, permanently or temporarily, overseas. In recent years a particular feature of new registrations has been the increasing number of Asian doctors registering in Australia although in many instances they are not actually practising in Australia.

The register contains particulars of name, sex, recognised specialties and practice addresses. Reference to the register is made in the Medibank claims processing system to ensure that benefits are paid only in respect of medical services provided by legally qualified practitioners. Close liaison is maintained with the registrar of the State Medical Registration Boards to ensure that information in the register is kept up to date.

Recognition of specialists and consultant physicians

The Health Insurance Act 1973-76, which is the legislative basis for Medibank, provides for the establishment of Specialist Recognition Advisory Committees to consider applications from medical practitioners for recognition as specialists or consultant physicians for the purposes of the Act. In addition to the Advisory Committees, the Act also provides for the establishment of a Specialist Recognition Appeal Committee to consider appeals against Specialist Recognition Advisory Committee rulings.

The Act empowers the Committee to consider an application from a medical practitioner, 'having regard to his qualifications, experience and standing in the medical profession and the nature of his practice'. A medical practitioner registered as a specialist under State law is recognised as such under the Health Insurance Act.

Appointments to both the Specialist Recognition Advisory Committees and the Specialist Recognition Appeal Committee are made by the Minister from panels of medical practitioners nominated by the Australian Medical Association, the Royal Australasian College of Surgeons, the Royal Australasian College of Physicians, the Australian Council of the Royal College of Obstetricians and Gynaecologists and the Royal Australian College of General Practitioners.

With the introduction of Medibank the National Health Act provisions for the recognition of specialists and consultant physicians were replaced by similar provisions in the Health Insurance Act.

The Minister approved the existing committee members as members of the corresponding committees established under the new Act for the remainder of their current terms of appointment, which, with one exception, expire on 9 August 1976. Medical practitioners who, at 30 June 1975, were recognised as specialists and consultant physicians under the National Health Act, were similarly recognised under the Health Insurance Act from 1 July 1975.

The Health Insurance Act also provides for separate membership of the Advisory Committee and the Appeal Committee. The Specialist Recognition Advisory Committees throughout Australia met 46 times during 1975-76 to consider applications from 655 medical practitioners. The Specialist Recognition Appeal Committee met seven times and considered 26 appeals. The Appeal Committee dismissed 22 of these appeals, and allowed two.

Recognition of specialists and consultant physicians is granted solely for the purposes of payment of medical benefits at the higher specialist rates. For benefits to be paid at this higher rate, a patient must be referred in one of the following ways:

(a) to a recognised consultant physician by another medical practitioner;

(b) to a recognised specialist:

  (i) by another medical practitioner;
  or

  (ii) by a registered dentist, where the referral arises out of a dental service;
  or

  (iii) by a registered optometrist or registered optician, where the specialist is an ophthalmologist.

The referral must be made on a formal Notice of Referral form. The Department arranges the printing and distribution of the forms.

Medical Services Committees of Inquiry

Work is proceeding on the establishment of Medical Services Committees of Inquiry provided for in Section 80(1) of the Health Insurance Act. The function of the Committees is to inquire into instances of apparent over-servicing by medical practitioners. Particular consideration has been given to difficulties associated with the collection of information on services provided by medical practitioners on which to base references to committees for investigation.

Hospital Insurance and Nursing Division

Hospital Insurance

The year was a particularly busy one for the Hospital Insurance Branch because of the changes which occurred with the introduction of Medibank. On the hospital side of Medibank, the arrangements were introduced at varying dates in the States during the first few months. The arrangements affected both public and private hospitals.

Because of the introduction of Medibank, a substantial restructuring of the private health insurance arrangements was necessary. The Branch has the responsibility for both medical benefits organisations and hospital benefits organisations and while much of the activity associated with the restructured operations of these occurred during the previous year these activities continued during 1975-76.

Public hospitals

During the early part of the year, the Section was involved in negotiations with the States aimed at achieving agreements concerning the Medibank hospital arrangements. A draft agreement document was drawn up, based on the Heads of Agreement in the Health Insurance Act, and discussed with officers of each State.

The basic principle of the Medibank hospital arrangements was that, in return for the Commonwealth meeting 50 per cent of the net operating costs of each State's public hospital system, the States, for their part undertook to provide free standard ward hospital accommodation and treatment without means test to all people in the community. Among the many items for discussion were, therefore, the principles for determining the eligibility for a particular cost for inclusion in the cost sharing arrangements, and the definition of 'net operating costs'. Negotiations with the South Australian and Tasmanian Governments enabled the Medibank hospital arrangements to operate in these States, together with the A.C.T. and the Northern Territory, as from 1 July 1975.

During the next few months, negotiations with the other States resulted in agreements being reached to operate from the following dates:

Victoria	—	1 August 1975
Western Australia	—	1 August 1975
Queensland	—	1 September 1975
New South Wales	—	1 October 1975

The following agreements were reached with the individual States:

- Access of all people to comprehensive hospital care, including medical treatment, provided free of charge in standard beds of public hospitals.
- Removal of existing means tests on access to standard bed public hospital treatment.
- The provision of free medical services and other ancillary services to standard bed public hospital patients and to outpatients.
- Arrangements for the payment of doctors providing services to patients in standard beds on the basis of salaried, sessional or contract arrangements.
- Retention of the choice of private ward accommodation in public hospitals whereby patients can be attended by their own doctor on a fee-for-service basis.
- Fees paid to doctors by private patients to attract Medibank medical benefits.
- Hospital accommodation fees for private patients at reduced levels owing to significantly increased Commonwealth Government payments.
- Payment by the Commonwealth Government of amounts totalling 50 per cent of the net operating costs of public hospitals.

The Section was responsible for informing the Health Insurance Commission of the amounts to be paid to the respective State hospital authorities as the Commonwealth's 50 per cent share of public hospital net operating costs. This involved the Section in a detailed analysis of the costs of operating the public hospital system in each State in order to ensure that only agreed costs were included for cost sharing.

Towards the end of May 1976, the Government announced that the hospital agreements were not in accordance with the provisions of the Health Insurance Act and therefore were not valid. Payments under the agreements were discontinued. In order that the State Governments could continue to receive, on an interim basis, the amounts to 30 September 1976 that they would otherwise have received under the agreements, urgent legislation was introduced (*States Grants (Hospital Operating Costs) Act* 1976) which authorised the Treasurer to make payments to the States not exceeding in aggregate, the amount of $315 million.

Private hospitals

The 1975-76 financial year saw the introduction in all States of the Medibank arrangements for private hospitals. The changeover to the new arrangements for private hospitals was made at the same time as the implementation of the Medibank public hospital provisions.

Under Medibank, each approved private hospital is eligible for daily bed payments of $16 for each patient accommodated. These daily bed payments are made direct to private hospitals, on condition that the patient's account is reduced by the amount of the Medibank payments.

Monitoring of claims data has shown a continuing increase in the number of private hospital bed days claimed. Data available so far indicate an increase in total private hospital bed days compared with similar periods prior to the introduction of Medibank. This trend is of some interest in view of an earlier concern that the availability of public hospital treatment without charge under Medibank might stimulate a drift away from treatment in private hospitals. This does not appear to have been the general experience in Medibank's first year of operation.

Hospital medical services

Consultations have been held with the States with regard to their endeavours to reach agreement with the medical profession as to the manner in which medical care can be provided to patients in standard wards. Primarily, arrangements for the provision of medical care to standard ward patients fall into three basic categories—full-time salaried, sessional payment and contractual (notably modified fee-for-service). Under the sessional payment arrangements, a visiting private doctor is appointed to attend a hospital for a number of sessions per week for the purposes of treating standard ward patients.

A session is approximately equivalent to a half-day and the doctor receives a set payment for each session he attends. The modified fee-for-service system involves the payment, by the hospital, of a fee to a visiting medical officer for each service he provides to standard ward patients. There need be no set times of attendance and the fees paid are normally equal to the medical benefits schedule rate. There are still some areas where satisfactory arrangements for the provision of medical care to standard ward patients have not been concluded and efforts are continuing to resolve the emaining difficulties.

Subsidised Health Benefits Plan

This plan operated prior to Medibank and provided assistance to low income families, migrants, and people receiving unemployment, sickness and special benefits from the Department of Social Security. It enabled them to insure for medical and hospital benefits and to receive pharmaceutical benefits for half the normal patient contribution. The plan in respect of medical and hospital benefits, became obsolete with the introduction of the universal health cover provided under Medibank. The provisions of the National Health Act which related to the plan were formally repealed with effect from 1 March 1976 by National Health Act No. 1 of 1976.

The Government assistance provided in 1975-76 amounted to $2.883 million and $11.827 million in relation to medical benefits and hospital benefits respectively.

The rules under which medical and hospital funds are conducted generally include limitations on the amount of benefits payable out of the funds and may also exclude from benefits those persons with pre-existing ailments. Hospital funds also exclude persons with chronic illnesses. Where these rules exist and are put into effect, the organisations are required to transfer the relevant contributors to a special account. The Government reimburses to the organisations the deficit balances of the special accounts. All except a few medical benefits organisations ceased operating special accounts when Medibank took over as the principal payer of medical benefits. Old claims were still being settled during 1975-76, the Government payments being $8.326 million.

Hospital benefits organisations continued to operate special accounts after the introduction of Medibank but the maximum benefits payable were restricted to the private room/recognised hospital fee of $30 per day. Government expenditure in 1975-76 in relation to the hospital sector was $72.084 million.

During 1975-76, the Registration Committee met 51 times to consider proposed rule amendments and the associated detailed submissions on the financial implications for the funds of the proposals. The Registration Committee is a statutory committee under the National Health Act and comprises a representative of the Commonwealth Actuary and two Departmental officers. The Committee is required to examine, report on, and make recommendations to the Minister on applications for registration, on suspension or cancellation of medical and hospital benefits organisations, and on various other matters including changes to contributions and benefits. During the year three organisations which operated both medical and hospital benefits funds,

two organisations which operated medical funds only, and one organisation which operated a hospital fund only, sought and received approval for voluntary de-registration. Altogether, the Section prepared 216 submissions for the Registration Committee to consider.

The National Health Act requires the tabling in Parliament of an annual report detailing the operations of the health insurance organisations. The Fifth Annual Report, which covers the 1974-75 period, is expected to be tabled early in the 1976-77 financial year. The report covers the last pre-Medibank period and shows that the medical funds recorded an overall surplus of $4.7 million, which was equal to 1.9 per cent of contribution income, and the hospital funds had an overall loss of $17.9 million, the equivalent of 5.5 per cent of contribution income. Free reserves of the medical funds and the hospital funds at the end of the period were $9.1 million and $97.6 million, respectively.

Private insurance

As Medibank arrangements were progressively introduced in each State, the registered hospital benefits organisations re-structured their hospital benefits tables to provide benefits matching the fees charged in public hospitals. These two basic tables provided benefits of $20 and $30 per day to patients insured for multi-bed and single-bed rooms respectively. In most States, organisations also introduced additional tables providing supplementary benefits to cover fees charged by private hospitals. These benefits supplemented those available from the basic hospital tables and the $16 per day benefit provided under Medibank.

The National Health Act was amended in February 1976 deleting, with effect from 1 April 1976, the Commonwealth hospital benefits previously paid to insured and uninsured persons under that Act. These benefits had become obsolete with the introduction of Medibank. To ensure that there was no reduction in the total amount of benefit paid to their contributors, the hospital benefits organisations increased their benefit cover to offset the deletion of the Commonwealth benefits.

The weekly family contribution rates being charged by the major hospital benefits organisations in each State, as at 30 June 1976, were as follows:

BASIC TABLES

	Daily Benefits $	*N.S.W.* $	*Vic.* $	*Qld* $	*S.A.* $	*W.A.* $	*Tas.* $
multi-bed wards	20	1.20	1.28	0.86	1.10	1.10	0.50
single-bed rooms	30	1.70	1.94	1.66	1.70	1.70	0.70

SUPPLEMENTARY BENEFITS FOR 'PRIVATE HOSPITAL' PATIENTS

Daily Benefits $	*N.S.W.* $	*Vic.* $	*Qld* $	*S.A.* $	*W.A.* $	*Tas.* $
14	—	—	—	0.70	—	—
15	—	1.46	—	—	—	—
24	—	—	0.90*	1.60	—	—
25	0.84*	—	—	—	—	0.60*
30	—	2.70	—	—	—	—

* as the largest organisation in each case does not have a supplementary benefits table, the rates shown relate to the second largest organisation in the relevant State.

After the introduction of Medibank, the registered medical benefits organisations had the option of winding-up their medical funds or, alternatively, continuing to operate, but with medical benefits restricted to 15 per cent of the Schedule fees or $5, whichever is the lesser amount, i.e. the gap left between Schedule fees and the available Medibank benefits. Most organisations continued on this basis. Because of the introduction of a new range of benefits for various paramedical, dental, and optical services in addition to the medical 'gap' benefits referred to above, medical benefits organisations generally retained the medical fund contribution rates at about the pre-Medibank levels.

The weekly family contribution rates being charged as at 30 June 1976 by the major medical benefits organisations in each State, were as follows:

N.S.W. $	*Vic.* $	*Qld* $	*S.A.* $	*W.A.* $	*Tas.* $
1.86	1.00	1.80	0.80	0.60	1.24

The differing contribution rates are explained by the fact that Western Australian organisations provide medical benefits 'gap' only, while the other States provide 'gap' benefits plus differing ancillaries.

Nursing Home Benefits

Hospitals and nursing homes

The basic nursing home benefits of $3.50 a day for ordinary nursing home care and an additional $3 a day for patients who need and receive intensive nursing home care, have remained unchanged during the year. However, the Government increased the additional nursing home benefit for pensioners by $1.35 a week in all States from 1 February 1976. This benefit, which was introduced on 1 January 1973, is payable by the Commonwealth Government in respect of qualified pensioner patients only. Other patients may attract an equivalent amount of benefit by insuring with a hospital benefits organisation.

The following table shows the rates of benefit payable in each State as at 30 June 1976:

WEEKLY RATES OF NURSING HOME BENEFITS AS AT 30 JUNE 1976

	N.S.W.		*Vic.*		*Qld*		*S.A.*		*W.A.*		*Tas.*	
	Ord. Care $	*Int. Care* $	*Ord.* $	*Int.* $	*Ord.* $	*Int.* $	*Ord.* $	*Int.* $	*Ord.* $	*Int.* $	*Ord.* $	*Int.* $
Basic Benefit	24.50	45.50	24.50	45.50	24.50	45.50	24.50	45.50	24.50	45.50	24.50	45.50
*Additional Benefit	39.90	39.90	64.05	64.05	43.05	43.05	64.05	64.05	38.85	38.85	54.25	54.25
(*Increase since 30.6.75)	(9.45)		(9.45)		(9.45)		(9.45)		(9.45)		(9.45)	
Total Benefit	64.40	85.40	88.55	109.55	67.55	88.55	88.55	109.55	63.35	84.35	78.75	99.75

The nursing home benefits arrangements require patients to make a minimum contribution towards the nursing home fees. Upon the introduction of the present arrangements on 1 January 1973 the minimum patient contribution was set at $18 a week. The former Labor Government decided in 1974 that the minimum patient contribution should be such as to leave patients receiving the standard rate pension plus supplementary assistance an amount of $4 a week for their personal needs. In 1976 the present Government decided that this amount should be increased to $5 a week. The minimum patient contribution is subject to variation in accordance with increases in pension and benefit rates in order to maintain the $5 a week retention level. However, the amount of $5 a week can only apply where the approved fees for a particular nursing home are equal to, or below the standard fee for a particular State. Where the nursing home fees are above the standard fee for that State the difference must be met by the patient.

The minimum patient contribution was increased twice during the year. The second of the two increases took effect from June 1976 and raised the level of patient contribution to $41.30 a week. The total increase during the year was $4.55 a week.

The principles involved in the operation of the minimum patient contribution and the standard fee were explained in detail in the Annual Report of the Director-General of Social Security for 1972-73.

The standard weekly fees applicable to each State as at 30 June 1976 are shown in the following table:

STANDARD WEEKLY FEES APPLICABLE TO EACH STATE AS AT 30 JUNE 1976

N.S.W.		*Vic.*		*Qld*		*S.A.*		*W.A.*		*Tas.*	
Ord. $	*Int.* $	*Ord.* $	*Int.* $	*Ord.* $	*Int.* $	*Ord.* $	*Int.* $	*Ord.* $	*Int.* $	*Ord.* $	*Int.* $
105.70	126.70	129.85	150.85	108.85	129.85	129.85	150.85	104.65	125.65	120.05	141.05

Domiciliary Nursing Care Benefit

The Domiciliary Nursing Care Benefit Scheme provides for a benefit of $14 a week ($2 a day) to a person caring for a chronically ill aged relative at home. The benefit, which may be paid for a maximum of two patients, is primarily intended to offer an alternative to nursing home care for aged people.

Since its introduction, on 1 March 1973, 34 963 people have been approved to receive the benefit. Of these, 8297 were approved during the year ended 30 June 1976. The number of people approved at 30 June 1976 was an increase of 208 over the previous year.

The scope of the benefit was extended during the year to include patients and beneficiaries living in certain aged persons' complexes where nursing care is not provided. The type of complex in which patients and applicants may now qualify for the benefit are those where the complex has no hostel or nursing home attached or where it has a hostel attached but no nursing staff are employed.

Nursing homes fees

In August 1973, a working party, called the Working Party on Fees Justification Procedures and consisting of officers of the Department and representatives of the National Standing Committee of Nursing Homes, was established by the Minister.

The Working Party makes recommendations to the Minister on procedures involved in the supervision of fees of private nursing homes by the Department and on matters relating to the financial operations of private nursing homes. The main change in fee control procedures during the year was the introduction of a loading to approved nursing home fees in respect of accrued leave at the time of variations to awards affecting staff employed in the private nursing home industry.

Deficit financing

The *Nursing Homes Assistance Act* 1974 provides for a system of deficit financing of approved nursing homes operated by religious and charitable organisations or other non-profit organisations. Deficit financing became available from 1 January 1975.

Existing Commonwealth Government and fund nursing home benefits are no longer payable in respect of patients in these nursing homes. However, a nursing home which does not wish to participate in the deficit financing arrangements may continue to claim nursing home benefits in the usual manner.

The patient contribution in nursing homes which elect to enter deficit financing arrangements is such that a patient receiving the full base rate single pension, plus full supplementary assistance, will retain $5 per week for personal use. Provision to reduce or waive the patient's contribution in certain circumstances is also made.

As well as covering the deficits incurred by proprietors in the care of nursing home in-patients, the Nursing Homes Assistance Act provides for the Commonwealth Government to meet the cost of approved services, such as physiotherapy and occupational therapy for visiting patients.

A meeting of the Working Party on Religious and Charitable Nursing Homes was held in Sydney on 8 April 1976, to review the deficit financing arrangements, with particular emphasis on finding ways and means to contain Government expenditure.

The Working Party consists of representatives of associations in each State of organisations conducting religious, charitable and other non-profit nursing homes and officers of the Department. A number of cost saving measures were discussed at the meeting and are under examination.

At 30 June 1976, 224 nursing homes out of 358 eligible homes had entered agreements with the Commonwealth Government under the Nursing Homes Assistance Act. These nursing homes contain approximately 66 per cent of nursing home beds operated by eligible organisations.

The amount of expenditure incurred by the Commonwealth in meeting the approved deficits for these nursing homes in 1975-76 was $51.9 million.

Nursing Homes Fees Review Committees of Inquiry

As a condition of approval under the National Health Act, for the purposes of the payment of Commonwealth benefits, nursing homes (excepting Government nursing homes) cannot charge fees in excess of those determined by the Department. However, if a nursing home wishes to contest a decision of the Department in relation to fees, provision exists for an appeal to the Minister for Health who then refers the matter to an independent Nursing Home Fees Review Committee which has been established in each State.

The number of appeals received during 1975-76 is 58 per cent less than the number received in the previous 12 months. This is seen to be an indication that nursing home proprietors have to a large extent come to accept the way in which fees control arrangements are being administered by the Department.

APPEALS FROM 1 JULY 1975 TO 30 JUNE 1976

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Outstanding at 30.6.75	4	1	1	1	—	—	7
Number received 1.7.75 to 30.6.76	14	3	—	14	—	—	31
Appeals finalised	10	3	1	5	—	—	19
Fees increases approved	2	—	1	3	—	—	6
Appeals withdrawn at hearing	2	1	—	—	—	—	3
Appeals withdrawn before hearing	4	—	—	1	—	—	5
Fee increases refused	2	2	—	1	—	—	5
Incomplete at 30. 6. 76	8	1	—	10	—	—	19

Health Program Grants

Health program grants were introduced on 1 July 1975 as part of the Medibank program. The arrangements are authorised under Part IV of the Health Insurance Act.

The grants were introduced as there are areas of health care which require financial assistance but are outside the scope of the fee-for-service benefits arrangements. To be eligible for assistance it is required that a basic component of the health service provided by an organisation be medical services provided by doctors employed on a salaried or sessional basis. However, the grant may also cover the cost of providing allied and ancillary services, including diagnostic services.

Under Section 44 of the Health Insurance Act, the Minister is required to consult with the Hospitals and Health Services Commission and have regard to the Commission's recommendations before approving an organisation, the health service, the level of the grant and determining the conditions of payment of a grant. The grant, which is approved after examining a budget submitted by an organisation, is made available on a monthly advance basis, a final settlement being made at the end of the year when audited accounts are available.

A wide range of organisations has been approved under the health program grants arrangements. The value of grants approved in respect of the 1975-76 financial year was approximately $7.4 million.

Health Insurance Development and Review

The most significant task in the health insurance legislation area has been the preparation of the legislation to authorise the Government's modifications to Medibank which will come into operation on 1 October 1976. Three of the Acts authorising the modifications fall within the responsibility of the Minister for Health. The others, relating principally to the Health Insurance Levy, are the Treasurer's responsibility.

The three Acts falling within the responsibility of the Minister for Health are the *Health Insurance Amendment Act* 1976, the *National Health Amendment Act* 1976 and the *Health Insurance Commission Amendment Act* 1976.

The principal provisions of the *Health Insurance Amendment Act* 1976 specify the circumstances in which Medibank medical benefits will be payable from 1 October 1976.

The main provisions in the *National Health Amendment Act* 1976 are directed to the operations of health insurance organisations registered under the National Health Act and at ensuring that persons who elect to contribute to such organisations, instead of remaining in Medibank, receive basic benefit entitlements which will preserve the universality achieved by Medibank.

The *Health Insurance Commission Amendment Act* 1976 provides for people to contribute to the Health Insurance Commission on behalf of themselves and any dependants. Such persons and their dependants will be entitled to the benefits of Medibank but will be exempt from the Health Insurance Levy.

In addition to the above Acts, the Branch was involved in the preparation of the *National Health Act* 1976. That Act, insofar as it related to medical and hospital payments, provided for the cessation of the payment of Commonwealth medical and hospital benefits under the National Health Act and the termination of the Subsidised Health Benefits Plan. The provisions authorising the payment of the Commonwealth benefits, and the Subsidised Health Benefits Plan as it related to medical and hospital insurance, had become redundant following the introduction of Medibank.

The Branch was also involved during the year in the preparation of two Bills which were not enacted. These were the National Health (Nursing Home) Bill 1975, which provided for increases in certain nursing home benefits and the Nursing Homes Assistance Bill 1975 which contained a technical amendment relating to the definition of a government nursing home. These Bills were introduced into Parliament on 22 October 1975 by the Minister representing the then Minister for Social Security, but lapsed when Parliament was dissolved in November 1975.

On 4 June 1975 a Bill entitled the Health Insurance Bill (No. 2) 1975 was introduced into the Parliament by the then Minister for Social Security. The provisions of the Bill were designed to increase the protection of the privacy of individuals under Medibank. This Bill also lapsed when Parliament was dissolved in November 1975.

The Law Reform Commission has been asked by the Attorney-General to examine and report on undue invasions of privacy arising from matters under the control of

the Commonwealth Government and to recommend appropriate legislative protection to safeguard the individual's right to privacy. The relevant terms of reference of the Commission include specific reference to the collection, recording, storage and communication of information obtained pursuant to the Health Insurance Act and the Health Insurance Commission Act, the principal Medibank legislation.

Research and development

The principal research development activities of the Branch were associated with the introduction of Medibank and the review of its operations and included the preparation of papers associated with the review of the Medibank program. The Branch also assisted in the development of financial and statistical reporting systems relating to the Medibank hospital arrangements and continued to maintain a statistical reporting system for nursing homes and health insurance organisations registered under the National Health Act.

Analyses of the financial operation of nursing homes were carried out and the statistical summary entitled *Public and Private Hospitals* was published. The publication is one of a series on the subject and covers the years 1971-72 and 1972-73.

Policy and Planning Division

Policy Secretariat and Legislation

The increase in 1975-76 in the workload of the Branch reflects the continuing parliamentary, community and media interest in the activities of the Department and its associated authorities. All three Sections—Legislation, Policy Secretariat and Public Relations, recorded increased activity during the year.

Legislation

A number of proposals for Commonwealth and Territory legislation were dealt with by the Legislation Section during the year. The Section continued to consult with legal authorities on a wide variety of questions relating to legislation administered by the Department.

The National Health (Pharmaceutical Benefits Charges) Act 1975 came into operation on 1 September 1975 and increased the patient contribution for benefits under the Pharmaceutical Benefits Scheme.

The National Health Act 1976 received Royal Assent on 29 February 1976. The Act increased from 1 March 1976, the patient contribution for pharmaceutical benefits from $1.50 to $2.00 and removed the concession whereby Subsidised Health Benefits Plan beneficiaries were eligible for a reduced patient contribution of 75 cents. In addition, the Act terminated the payment of Commonwealth hospital benefits then authorised under Part V of the Act.

Following the Government's decision to proceed with the banning of cigarette advertisements, the Section was associated with the preparation of amendments to the Broadcasting and Television Act. The amendments, which were introduced into Parliament on 20 May 1976, prohibit from 1 September 1976 the broadcasting or televising of advertisments for cigarettes and cigarette tobacco.

In November 1975, following confirmation of the existence of Oriental fruit fly in the Northern Territory, urgent action was taken to provide the necessary legislative authority to implement control measures.

Five sets of regulations were promulgated and in addition seven proclamations and statutory instruments were made. Instructions for the preparation of legislation on a further 10 matters were directed to the Attorney-General's Department.

Legislation relating to health insurance is a responsibility of the Health Insurance Development and Review Branch.

Policy Secretariat

During 1975-76 there was a substantial increase in the work handled by the Secretariat. It assisted with the preparation of replies to more than 8000 representations addressed to the Minister, 2000 more than in the previous year and with the provision of replies to 355 questions on notice—compared with 241 in the previous year—addressed either to the Minister for Health in the House of Representatives or to his representative in the Senate.

In addition, the Branch co-ordinated the preparation of briefs for the Prime Minister and other Ministers on specific aspects of the Department's activities, assisted with the formulation of proposals for consideration by the Government, and helped organise several important conferences.

Public Relations

The Public Relations Section continued to provide support to all areas of the Department and to the Hospitals and Health Services Commission. This includes the maintenance of a comprehensive publishing program, a media liaison service and the co-ordination of film making activities.

The overall workload increased following the transfer of health insurance functions to the Department. Media interest focused sharply on Medibank with the appointment in January of the Medibank Review Committee, and increased further after the Committee had reported to the Government, and the Government announced its decisions on modifications to Medibank.

Section officers were involved in the production of two million copies of a new Medibank pamphlet and the planning of an advertising campaign which accompanied the pamphlet distribution. As the year ended the Section was involved in the planning of a further publicity program to precede the introduction of the Medibank modifications on 1 October 1976. Close liaison in these matters was maintained with the Health Insurance Commission.

The Section's publishing activities included two new journals—*Australian Prescriber* and *Community Health Bulletin*. A specialist journalist works with an editorial board and the Australian Government Publishing Service to co-ordinate production of *Australian Prescriber*, which presents balanced, impartial information on drugs and drug therapy to doctors and other health professionals.

The *Community Health Bulletin* provides a forum in which Community Health Program workers describe their activities and exchange views.

Regular publication of *Health* journal and *Animal Quarantine* magazine also continued. A film, titled *I Can Hear But I Can't Understand* was produced by Film Australia for the National Acoustic Laboratories during the year.

The preparation of media releases continued to be another major role of the Section and 163 releases were issued in the twelve-month period. Specialist support continued for the Quarantine, National Health and Medical Research Council, Therapeutics and Public Health Divisions, and support was provided to other Divisions as required.

Ad hoc assignments during the year included the arrangement of publicity for the highly successful International Women's Year conference, 'Women's Health in a Changing Society', which was arranged by the Health Department and held at the University of Queensland in August 1975. The conference attracted favourable media comment throughout Australia. The Section also helped in the promotion of a nation-wide contest for the National Warning Against Smoking Campaign, in which school-children were invited to devise anti-smoking advertisements. More than 27 000 entries were received from all parts of Australia.

Health Services Research & Planning Branch No. 1

A deficiency in health expenditure data has long been recognised in Australia and this deficiency has been made particularly evident this year through involvement in a variety of exercises concerned with attempts to rationalise health expenditure, to develop new programs and to restructure existing programs. It is quite evident that this area will need considerable attention in future.

The year under review has seen a concerted effort to take a greater interest in the health care problems of other countries. A more positive attitude has been taken towards World Health Organization activities and to other overseas requests for information and advice.

Moves towards a closer working relationship with State and university agencies have been evident. The health services research and planning resources of the Department, together with those in the States, have only developed in the 1970s and the need for close practical association between all concerned must become increasingly important.

Community health

The main feature of the work of the Community Health Section is its diversity of activities which in turn reflects the nature of 'community health'.

Of the many projects and studies undertaken during the year, probably the most visible have been those associated with the reports issued by the Hospitals and Health Services Commission towards the end of the year on Health Transport and Rural Health. Preparation of both these reports, as with most research and planning activities at the national level, revealed the wide range of health service problems which can be found in Australia. Both exercises highlighted the increasing roles for transport and communication in bringing health care to many parts of the country.

Help was given to the Hospitals and Health Services Commission in the development and analysis of submissions for assistance under the Community Health Program. With a greater sharing of responsibilities for the Program between the States, and a reorganisation of responsibilities within the Department, the planning and research area should have much less involvement with the Community Health Program in the future.

Health personnel

The Health Personnel Section has continued to build up a better understanding of Australia's health workforce. This must still be viewed as a largely pioneering exercise. During the year, however, the Section has been called on increasingly for advice and support, demonstrating that as the work of the Section develops so will the demands on its resources.

Following the release last year of the first part of a *Handbook on Health Manpower* which described 30 health careers, it has been possible during this year to concentrate on the preparation of profiles on medical and nursing post-graduate specialties and on certain numerically small, but nevertheless important careers. It is hoped to complete and publish details of some 80 additional careers before the end of next year.

Health Services Research and Planning Branch No. 2

The integration of individual health care services into a total health care delivery system is important, if undue duplication and cost escalation is to be minimised. The

Health Services Research and Planning Branch is therefore developing national planning guidelines and criteria, both for individual services and for health care delivery as a whole. The monitoring and evaluation of performance of health care delivery systems is an important part of this planning.

The inter-relationships between the various sectors of health care delivery have led to the Branch adopting a team approach to planning, policy analysis and research where appropriate. Thus, officers from the various sections in the Branch are often deployed into teams undertaking relevant projects.

Emergency medical planning

The maintenance of information on Australia's medical manpower and resources is being continued to ensure that basic plans are available in a mass casualty situation due to major disaster.

Evaluation

Pilot-testing of an 'evaluation package' for community health services has been carried out at five health centres in association with State health authorities. A system of rating community health centre functions is being developed from a Canadian model and is being pilot-tested.

Papers outlining the needs for collecting health and morbidity statistics in Australia were presented to the Conference on Health Statistics held by the Australian Bureau of Statistics in March. The feasibility of automatic data processing of health centre statistics is also being examined in conjunction with the South Australian Health Department.

Health administration

A computer-based analysis is being made of manpower planning, training, job satisfaction and enrichment, career progression, recruitment and selection criteria as well as job evaluation and classification for all health professionals. It is hoped to identify ways of restructuring the health work force to increase its effectiveness and productivity.

Other ways of improving the effectiveness and efficiency of health care delivery are being studied. For example, a study is in progress of information systems needs for health care management.

Institutional and allied services

Criteria are being established to help assess the nation-wide need for institutional care facilities and services. Computer-based inventories of current and proposed institutionally-based services for each State are being developed.

The first criteria relate the number of beds in different specialties and functional categories to various community characteristics. These criteria, in their earlier stage of refinement, were applied last year to hospital development proposals submitted by the States under the Hospitals Development Program. An action sequence is being produced for the planning of the location, type and size of institutional care facilities. It is part of an overall health care planning action sequence which will be available to all interested health planning authorities.

The Section has developed computer-based data files containing information on State hospital development programs and institutionally-based pathology facilities. A

compendium of rehabilitation services available to the handicapped in all States has also been produced.

Proposals for the accreditation of pathology services and the assessment of current and future alternative methods of providing radiology services have been examined by the Section.

Investigations have commenced on the uses and possible benefits of satellite/telemedicine transmissions in the health care delivery context, especially in remote rural areas of Australia.

Resource Allocation and Regional Planning

The Resource Allocation and Regional Planning Section is preparing guidelines for the analysis of future health care needs in Australia and the development of national policy proposals. The Section has adopted a computer program for estimating small area population trends for use as a basis for determining health service requirements. Both these projects make it possible to analyse area differences and needs throughout Australia.

Regional planning activities included assistance to the Albury/Wodonga Development Corporation for its health needs study and the provision of health care planning expertise to other Commonwealth Departments involved in area planning. Also, in conjunction with the Capital Territory Health Commission, the Section prepared a study on hospital needs in the A.C.T. This study has now been extended to look at the total health needs of the Territory.

A discussion document was prepared covering all aspects of the proposed Health Commission for the Northern Territory. Many responses to the proposal were considered in drafting the recommended arrangements for the Commission and the future organisation of health care delivery in the Northern Territory.

Management Services Division

Establishments and Finance

The Branch experienced a period of consolidation following the major restructuring last year. The five Sections provided a wide range of services to the Department in a time of changing demands and requirements.

A significant innovation during the year was the development of a computer-based system for supplying staffing statistics. The accuracy and availability of these statistics has been crucial in the efficient administration of staff ceilings within the Department.

More than ever before the Branch has had close links with the various statutory authorities within the health area, particularly in disseminating Government policy directions on staffing and financial matters, in co-ordinating responses and in monitoring results.

Finance

The Finance Section continued to control overall financial functions and to provide advice on financial and accounting matters to management and policy areas.

The Management Information System was introduced during 1975-76. The system is designed to assist branch heads in controlling expenditure for which they are directly responsible.

Reviews were undertaken of a wide range of fees, including quarantine fees and remuneration for part-time quarantine officers. Financial briefs were prepared for a number of individuals and organisations including the Australian delegation to the World Health Assembly, the Uniform Costing Committee of the Hospital and Allied Services Advisory Council and Departmental representatives on inter-departmental bodies.

The Accounts Sub-section in Central Office, in addition to processing accounts for normal continuing expenditure, also processes all payments made under the Hospitals Development and Community Health Programs, the School Dental Scheme and health education programs. The Sub-section also makes payments and keeps the books of account for the Hospitals and Health Services Commission and for the Woden Cafeteria which is controlled by the Department.

The Finance Section continued to service the Departmental Estimates Committee which has been created to give high level formal consideration to all financial estimates. The Committee is chaired by a Deputy Director-General.

Establishments

As part of its normal role of advising and assisting on organisation and establishments matters the Section became involved in reviews aimed at adjusting relevant areas of Departmental establishments flowing from Government decisions on Departmental programs and priorities. It played an active part in co-ordinating the preparation of a major Departmental submission to the Administrative Review Committee. It also developed procedures for screening vacant positions to ensure they are essential.

Following the introduction of the Bulk Establishments Control Scheme in 1974-75, a two-fold approach was commenced to improve the system in the Department. This aims to more accurately define the workload situation in operational areas, provide a better basis for the preparation of establishments and staffing estimates, and reduce the staff resources used by branches in operating work recording systems. The second objective is to familiarise Departmental supervisory staff with procedures for preparing annual estimates. A series of one-day bulk establishments appreciation sessions was attended by 63 Departmental staff.

The reserve pool has been used to re-deploy staff to priority areas. A total of 142 positions were withdrawn and 108 allocated.

Major organisation and classification projects included the following:

- a review of the National Acoustic Laboratories in the light of the Government decision to defer indefinitely the expansion of the Hearing Aid Scheme.
- a review of the Alice Springs Hospital (on behalf of the Northern Territory Division) to assess establishments requirements.
- a review of the classification structure and qualification requirements of psychologists in the National Acoustic Laboratories and preparation of a report which is under consideration by the Public Service Board.
- preparation of proposals for regionalising the administration of health services in the Northern Territory.
- a restructuring of the central office registry and typing services.

Investigations resulted in the adoption of revised procedures and the implementation of new systems in many areas of the Department.

In conjunction with the ADP Branch and the Personnel Management Section, the Internal Consultancy Sub-section designed and implemented a computer based staff records system. The system was designed primarily for compiling staff returns to the Public Service Board, but will also enable the rapid extraction of staff and establishment details for a variety of other returns and submissions which have previously involved extensive manual searches of Departmental records.

Investigations into records storage problems in the Environmental Health Branch and the Therapeutic Goods Branch resulted in recommendations that microfilm systems be introduced and work is currently progressing on these systems.

Work is currently under way to replace the existing Central Dictating Service with a more up-to-date and efficient system.

Administrative services

The Territories Secretariat within the Administrative Services Section continued to provide briefs for the Minister and senior officers on Northern Territory matters and co-ordinate and prepare replies to correspondence concerning the Northern Territory Division.

The Works and Accommodation Sub-section continued to co-ordinate State and Territory programs in respect of capital works, repairs and maintenance, furniture

and fittings, work in rented premises, new leasing proposals, land acquisitions and accommodation requirements. The implementation of these programs during the year was curtailed and new priorities set following the change in Government in November 1975. In Darwin there has been a major replanning of project needs and priorities following Cyclone Tracy.

Building projects commenced, or for which tenders were called during the year, included the Docker River (Northern Territory) health centre, $479 000; Bellerive (Tasmania) health centre, $970 000; Doveton (Victoria) health centre, $106 000; and new premises for the Australian Radiation Laboratory in Melbourne, $4.3 million.

Construction work at the Casuarina (Darwin), Tennant Creek and Alice Springs hospitals continued. A new pathology laboratory at Casuarina estimated to cost $11 million is now planned for commencement in the 1976-77 financial year.

The Grants Sub-section continued the financial monitoring of a large number of grants on behalf of the Department and the Hospitals and Health Services Commission. Although mainly payable to or through State Governments, these grants also are made direct to institutions and organisations. Grants paid during the year were as follows:

Community Health Program. Payments to States and non-profit organisations for approved projects amounted to $54 288 851.

Hospitals Development Program. Payments to the States totalled $107 150 000.

Paramedical Services. Payment to the States for approved schemes for the provision of paramedical services to aged people in their homes amounted to $410 000. Only three States—Victoria, South Australia and Tasmania—are participating in this scheme.

Home Nursing. The rate of payment of subsidy under the *Home Nursing Subsidy Act* 1956 was increased from 1 July 1975 to $7100 for each additional nurse employed by organisations over the number employed in 1956. For organisations established since 1956, the rate was increased to $3550 for each nurse employed. Payments during the year totalled $7 199 762. Under the Act, payment to non-profit organisations, who conduct approved home nursing services, is limited to the amount of State and/or local government assistance.

Blood Transfusion Service. The Australian Red Cross Society received a Commonwealth contribution towards blood transfusion service operating costs of 35 per cent in the States and 95 per cent in the Territories. However, the scheme was extended from 1 July 1975 to admit the costs of certain projects and minor capital equipment as operating costs and to accept other approved capital expenditure on a $1 for $1 basis with the States. Payments amounted to $4 065 000 in the States and $131 015 in the Northern Territory.

Royal Flying Doctor Service. Subsidy to the Service continued during the year and $700 000 was paid as operational subsidy and $199 513 as capital subsidy. The changeover of radio base stations to single sideband operation is now complete and the Commonwealth Government has paid $547 493 as the total cost of this project. In the current triennium (1974-77), a total of $2.1 million is provided for operational subsidy and $800 000 as capital subsidy.

Family Planning. Grants continued to be paid for family planning services and research to non-profit organisations. Payments totalled $753 423, including $250 000 to the Australian Federation of Family Planning Associations and $125 000 to the Australian Catholic Social Welfare Committee.

Research Institutes. Special grants to the Walter and Eliza Hall and Howard Florey Institutes totalled $500 000 each. An amount of $500 000 for each Institute remains to be paid during 1976-77.

Nursing Home. The special grant provided for Stage II of a public nursing home at Wynnum in Queensland was increased to $1 725 000. Payments amounted to $925 000, giving a total paid to date of $1 072 703.

Personnel management

The Section continued to provide information for the Royal Commission on Australian Government Administration and replies to matters raised by the Administrative Review Committee.

The introduction of wage indexation and its accompanying wage fixation guidelines caused an extra workload for the Personnel and Industrial Sub-section in its efforts to obtain competitive salaries for the Department's medical and nursing staff within the terms of the indexation guidelines.

The emphasis in the recruitment cell's work moved from recruitment campaigns to the implementation and monitoring of the tight staff ceiling set for the Department. Some re-deployment of staff was necessary and the Department absorbed a number of officers placed on the unattached list as a result of the restructuring of some Departments. A computer based staffing statistics and personnel system was developed to assist in these operations.

The Registry Unit was reviewed during the year and more efficient procedures and document workflows were introduced.

A range of training courses was provided at the Departmental training centre and a training needs survey was conducted to improve planning for training requirements. Other training activities included the establishment of a Departmental scholarship for study towards the degree of Master of Health Planning at the University of New South Wales and the planning, implementation and supervision of training in health administration for two United Nations Development Program Fellows.

A computer-based system has been developed to assist in the production of staff statistics and to monitor personnel movements within the Department. Access to the 'personnel system' is via a visual display unit located in the recruitment cell at the Department's Central Office in Canberra, shown here being operated by Mr Geoffrey Beskin of the Recruitment Section staff.

Dissemination of information for Departmental use is achieved with the use of modern office machines in the Department's Central Office in Canberra. Here Mr Karl Burk loads a Bruning 2300 offset duplicating machine.

The Section was involved in a range of personnel projects initiated by the Public Service Board and was represented on a working party considering the return to Darwin of bridging units of Departments currently based in Brisbane.

Library

The Department maintains nine libraries, with one of the largest collections of medical and health related literature in Australia. There are approximately 127 000 volumes on the shelves, with an annual addition of about 7000 monograph titles and a current intake of over 6000 serial titles.

The libraries of the Health Department provided users outside the Department with more than 6000 inter-library loans during the last financial year. In addition to Departmental officers the collections are also used by other government departments and agencies, universities and hospitals. Reasonable access has been given to the general public.

In the past year, a comprehensive listing of biomedical serial titles in all Canberra's smaller and major medical libraries and collections has been produced. This is a most useful finding tool for biomedical periodicals with emphasis on those periodicals listed in *Index Medicus*. The listing has been done in collaboration with the A.C.T. Branch of the Australian Medical Librarians Group.

Six hundred new serial titles have been added during the last financial year to the holdings of the central library, mainly in the fields of pharmacology and health planning research. An arrangement has been made with the National Library of Medicine of the United States for the introduction and use of the Catline data base (a computerised

listing of the world's monographic and report literature in all medical fields). Catline is being used and evaluated for on-line copy cataloguing for bibliographical verification and subject searching.

A duplicate exchange collection has also been established within the central library and is located at the Australian Institute of Anatomy, to where medical libraries may send their useful duplicates and obtain missing items or whole sets of wanted publications.

Internal audit

The Internal Audit Section operates as an independent, post-operative, appraisal function as a service to management. It covers the traditional financial audit functions together with stores, personnel and related operations. Auditors stationed at Central Office and the Divisional Offices of the Department report regularly to Central Office management on the results of their investigations.

Internal audit activity in the Northern Territory Division has now overcome many of the difficulties which were encountered following Cyclone Tracy. The Northern Territory Internal Audit Section is responsible for the audit of hospitals and dental clinics located at Darwin, Gove, Katherine, Tennant Creek and Alice Springs. During the year it has had to examine closely new procedures introduced as a result of Medibank. The audits have been conducted by staff located at Brisbane, Darwin and Alice Springs.

Automatic Data Processing

The Automatic Data Processing Branch continued its computer and data processing services for the Department, of which a continuing major share related to the processing of claims for the Pharmaceutical Benefits Scheme. During the year visual and

Progress of claims processed in connection with Medibank is monitored by Senior Computer Operator Mr Grahame Howe in the Department's Computer Centre, Canberra.

printing display terminals connected to the computer were installed in the National Library of Australia to provide 'on-line' searching of the Medical Literature Information Retrieval Service, MEDLARS II, data base. The National Library of Australia uses the computer daily to service MEDLARS requests from the Australian scientific and medical community.

As a result of changes to the administrative arrangements of government, the Branch assumed responsibility on 1 March 1976 for the computers used for Medibank processing for the Health Insurance Commission. This involves a central computer complex of two IBM system 370/168, 10 Honeywell system 716 and 34 NCR system MDS 2400 computers, together with an extensive leased line based communication network and approximately 650 data entry terminals located in various centres throughout Australia. The Branch also processes work for the Department of Social Security on this installation.

The Branch continued to provide ready access to computers for all areas of the Department. A number of branches now have programs based on the use of simplified standard computer procedures and an easily used high level computer language called 'Easytrieve'. Non-programming people have been given simple courses in the use of computer terminals and a range of standard procedures which enable them to use the computer with relatively little assistance from professional programmers. An example of this system is in the Establishments and Finance Branch where a range of reports on the establishment of the Department are now obtained through a computer terminal.

Applications

The demand for ADP services increased considerably this year, due mainly to the transfer to the Department of the responsibility for Medibank programming.

A number of computer systems officers were transferred to the Medibank work from other projects. The Medibank ADP system implemented by the Department of Social Security to meet the deadline of 1 July 1975 was an interim measure which necessarily did not include all the features of the designed system. However, it performed well. The task of developing those features of the designed system which could not be included in the interim system continued. These features include comprehensive management statistics and facilities to control the size of the computer files. In addition, ways of improving processing speeds on the computer were investigated.

Much work was done to improve the system for processing chemists' claims for the dispensing of pharmaceutical benefits prescriptions. Final implementation of the on-line system, using Telecom Australia's Common User Data Network (CUDN) was completed in August 1975. All State Offices are now using the CUDN-based on-line system.

A system was developed to help the Department and State Health authorities evaluate the effects of dental clinic examinations and treatments on the oral health of children. The system has been partly implemented and is currently processing data for Queensland, South Australia, Tasmania and the A.C.T.

Some work was done to support the MEDLARS II Medical Literature Analysis and Retrieval System. A new program permits retrieved citations to be tailored to match a request for information broadly or with high precision. Terminals from which the MEDLARS II data bases may be used are now located at the Department and at the National Library of Australia.

A computer system which helps to monitor reports of suspected adverse drug reactions is being developed. All reports are coded and stored in the computer, which categorises and summarises the available data when required.

Training courses in the use of visual display terminals and of standard procedures for computer processing and information retrieval were introduced for Health Department staff working outside the Automatic Data Processsing Branch this year. More than 100 people have participated. Here Mr J. Jameson, left, and Mr P. Callanan observe, from left, Geraldine Donohue, obscured, Mrs Kerry Kimber, Mr T. Newman and Miss Airdrie Mann operating the visual display units in the Department's Central Office at Phillip, A.C.T.

Forward Planning, Strategic Design and Services

Officers of the Forward Planning Group made a cost evaluation of the data communications network used for the collection of pharmaceutical benefits claims data. The future data communications needs of the Department were also explored and work began on developing a nation-wide communications network based on leased lines. The Forward Planning Group also assessed future savings by using machine readable documents, and also the possible use of low cost portable data entry terminals, for the collection of pharmaceutical benefits claims data. In addition, following studies of Departmental data processing requirements, proposals were made to obtain more equipment, including a key-to-disk data entry system, additional disk storage drives and visual display units for connection to the Departmental computers.

The Data Base Administration Group studied the relevance of data base techniques to the Department's data processing activities, and reported on how such techniques could be applied to the Pharmaceutical Benefits Management Information System. Personnel from the Department of Social Security were transferred to the Group which was expanded to assume responsibility for the data base administration activities associated with Medibank.

In the Standards and Resource Control areas, easy-to-use methods for computer processing by standard procedures were developed. These can be used by people with little training. Training courses in the use of these techniques and visual display terminals were developed and held for over 100 people from outside the ADP Branch.

At the Department's Central Office in Canberra, computer operators Mr Alan Masters and Mr Arthur Grispo, foreground, operate one of the data concentration mini computers used for collecting data from Divisional Offices.

The Training Sub-section provided basic training for 11 cadet computer systems officers and six trainee computer officers.

Communications

The Communications Section was developed following the merger of ADP staff engaged on the Medibank data entry and data communications equipment with the team engaged on pharmaceutical benefits data entry procedures.

The Section is also contributing to the study of a communications network using leased lines to replace the present method of data collection using CUDN, which has already been mentioned.

Systems Operation

During the year the Systems Operation Section became responsible for the operation of the Medibank IBM 370 computers which were transferred from the Department of Social Security. The IBM 360 installation, used for pharmaceutical benefits purposes, was expanded to include additional communication support hardware and hardcopy and visual display terminals. This expansion included portable terminals which access the computer using the standard telephone handset and Telecom Australia's telephone network. The growing number and diversity of users and applications being supported by computer terminals increased the need for high system reliability. The security of the computer centres has been improved and it is anticipated that more stringent measures may be needed when current developments relating to privacy are reported on.

Pharmacy Earnings and Projects

Pharmacy Inquiry

The Pharmacy Inquiry Section is responsible for planning and implementing studies into pharmacy earnings, costs and profits, which are conducted under the auspices of the Joint Committee on Pharmaceutical Benefits Pricing Arrangements. An inquiry covering the year 1972-73 was completed during 1975. The Chairman of the Joint Committee on Pharmaceutical Benefits Pricing Arrangements reported to the Minister on those issues relating to the inquiry on which the Committee was unable to agree. The Government agreed to increases in chemists' remuneration from 1 July 1973. The Pharmacy Guild of Australia disagreed with the Government's interpretation of the inquiry results and has taken out a High Court writ in connection with this matter.

The Section is currently engaged, with the co-operation of the Pharmacy Guild, in an ongoing cost analysis involving 250 pharmacies throughout Australia. The results of this analysis will be used in updating chemists' remuneration for 1975-76.

Commission's Secretariat

The Section provides secretariat support for the Commonwealth Serum Laboratories Commission under the provisions of the *Commonwealth Serum Laboratories Act* 1961-1973. This support includes liaison with other Government departments on behalf of the Commission, and the preparation of briefs, submissions and reports.

Projects

A further licensing agreement relating to the Ultrasonics Institute Octoson was negotiated by the Projects Section during the year. This agreement covers the manufacture and sale of the Octoson in the United States, Canada and Mexico. The agreement will enable manufacture in North America as the market develops.

Secretarial and project work was done for several working parties examining the proposal to establish an Australian Health Council and a Medical Research Council. These included two working parties of the National Health and Medical Research Council, a task force established by the Hospital and Allied Services Advisory Council, and a working party of the Australian Health Ministers' Conference.

The Section assisted in a feasibility study on the establishment of a national therapeutic products register.

Central Statistical Unit

During the year the Central Statistical Unit continued to advise on the application of statistical techniques, analysis and presentation of data, both to the Department and to the Hospitals and Health Services Commission. The Unit's work includes statistical support to the Committees of the National Health and Medical Research Council and, in particular to the newly formed Health Statistics Sub-committee. Assistance was given to the Food Microbiological (Reference) Sub-committee in the processing of data collected during the first year of the Survey of the Microbiological Status of Foods. The Unit is currently finalising the processing, analysis and presentation of the data collected during the N.H. & M.R.C. 1973 Survey of Smoking Habits of Australian School Children.

The Unit provided statistical support for several Departmental surveys. The report of the 1974 Survey of Patients Receiving Domiciliary Nursing Care was finalised and published this year. Assistance was provided on the analysis of data collected in the 1972/73 Inquiry on Pharmacy Earnings, Costs and Profits. Work also began on the design of a Survey of Nursing Manpower in Australia.

Specialist help on the use of mathematical statistical techniques is given to the Department. Of current importance is the statistical support being given to the National Biological Standards Laboratory in determining specifications of standards in analysing antibiotic sensitivity discs commercially available in Australia. Advice is also given to Departmental drug evaluators preparing material for the Australian Drug Evaluation Committee.

The Central Statistical Unit helps in the training of health statisticians from overseas countries. Three trainees spent time with the Unit during the year. One senior officer visited a number of overseas health statistics centres.

The Unit was involved in a conference in Canberra in February 1976 on the Rationalisation and Development of Health Data Collection and Analysis Activities in Australia. It was convened by the Australian Bureau of Statistics at the request of the Hospital and Allied Services Advisory Council. The conference, the first of its kind in Australia, focused on current problems in health data collections, deficiencies and areas of overlap. The conference expressed concern at the lack of data necessary for effective planning, administration and evaluation of health services and facilities. It recommended the establishment of a Standing National Committee on Vital and Health Statistics.

The dissemination of statistical information within the Department and to outside organisations and individuals, including the preparation of statistical material for the World Health Organization is a continuing activity of the Unit. It also takes responsibility for the co-ordination of the collection, compilation and presentation of data and review of the adequacy of information presented in the statistical appendix to this report.

National Health and Medical Research Council Division

The role of the National Health and Medical Research Council is to advise the Commonwealth Government and the States on public health matters and on medical and dental care and to advise the Minister for Health on the allocation of funds made available by the Government for medical research. The Council has three major committees—the Medical Research Advisory Committee, the Medicine Advisory Committee and the Public Health Advisory Committee. Each of these has expert committees, sub-committees and working parties to advise on specific topics. The full Council met once during the year, at the eighty-first Session in Canberra in October 1975. The eighty-second Session, scheduled for May 1976, was postponed because of economic constraints. Matters requiring the Council's urgent attention have been referred to the Executive Committee of the Council.

Medical research

The Commonwealth Government has provided $24 million for this purpose in the 1976-78 triennium. Although this is an increase of 39 per cent over the last triennium, it is below the $46.9 million requested by the NH & MRC for its triennial budget.

The allocation for the 1975-76 financial year of $4 million was increased to $4.85 million following discussions between the Treasurer and the Minister for Health, of which $3.15 million was available for the January to June period of 1976. Council has been assured of a further $4 million for the July to December period, making a total of $7.15 million for the 1976 calendar year.

It has been necessary to reduce the number of project grants and scholarships for 1976 and the level of support for research institutes. Council, in its submissions for funds, stressed that the level of support for medical research in Australia has remained well below that of comparable developed countries.

Recommendations on smoking

There has been a noticeable tendency to prohibit or discourage smoking in enclosed public places, and Council has recommended that in order to preserve the rights of the non-smoker to avoid harmful effects from passive inhalation of tobacco smoke, responsible authorities in Australia should take the following actions:

- prohibit smoking in hospitals and other health care institutions, except in specially designated areas;
- adopt regulations to protect non-smokers from exposure, without their consent, to tobacco smoke in the working environment;

- provide or extend non-smoking areas in public transport and other public places where smoking is not totally prohibited;
- define non-smoking areas in public transport and other public places where smoking is not totally prohibited;
- give special attention to the protection of infants from contact with people who are smoking.

These recommendations support the views of a World Health Organization Expert Committee on Smoking and its Effect on Health.

Acupuncture

A report on the Acupuncture Investigation was received by Council and a multi-discipline clinical trial is in the final stages of planning at the Monash Medical School. Funds for such a project in New South Wales were approved by Council at the eightieth Session. On the advice of members of the Working Party the project will now take place in Victoria.

Multiphasic screening

The evaluation of multiphasic screening which has been undertaken by the Institute of Medical and Veterinary Science, Adelaide, has been completed. The study was designed to find out if there were benefits, in terms of in-patient progress and hospital costs, from admission multiphasic screening at a large general hospital (The Royal Adelaide Hospital). A random sample of 1500 patients was used for the evaluation. Council has recommended that the report of the evaluation should be printed and widely distributed.

Mouthguards in sport

The promotion of the use of mouthguards by people taking part in sport was discussed. Council concluded that mouthguards had been demonstrated as effective in preventing teeth injuries and that individually made mouthguards were preferable to the self-fitted and mass-produced types.

Clinical psychologists

A report concerning the current shortage of clinical psychologists was noted and it was recommended that the Australian Government be advised that there is an urgent need to increase the post-graduate training facilities and manpower resources in clinical psychology.

Alcoholism among Aboriginal people

Council expressed the view that there is a need for the Aboriginal community itself to develop its own program to control alcoholism among Aborigines. It endorsed the recommendation by the Medicine Advisory Committee that additional resources be directed to facilities relating to primary and secondary prevention of alcoholism in Aborigines. These include improvement of conditions of life for specific family groups, the provision of means for Aboriginal groups to improve and regulate the adjustment of their own members, the provision of supportive facilities such as hostels, and the avoidance of increased reliance on legal measures of control. Additional

resources should be directed to such first aid facilities as detoxification units, if they can be introduced without increasing the alienation of the Aboriginal group.

It was also noted that in many areas these facilities may be as much needed by the non-Aboriginal population as by the Aboriginal one, and it was recommended that attempts should be made to provide, wherever possible, combined facilities for the use of both groups.

Accidental poisoning

Recommendations of the Medicine Advisory Committee on the problem of children accidentally swallowing drugs, medicines and poisons were endorsed.

The Committee supported the Standards Association of Australia in its work towards the development of an Australian standard for child-resistant medicine cupboards and locking devices for cupboards. It urged that a public education campaign be carried out on the prevention and primary treatment of child poisoning, and that the media devote free space and time to this problem.

Public Health Travelling Fellowships

Fellowships were awarded in the fields of preventive health and health education, community nutrition problems, sexually transmitted diseases, and several aspects of community health. In each case the Fellow will study overseas for a period of three to six months.

Market Basket Survey

A report on the Market Basket Survey 1974 was received. The survey was conducted by the Commonweaith and State Departments of Health and the Commonwealth Department of Science and Consumer Affairs. The study of organo-chlorine compounds monitored showed that there was no problem concerning hexachlorobenzene (HCB) and the intake of dieldrin was generally not in excess of acceptable limits. Further monitoring is indicated, however, because of the persistence of both chemicals. Further monitoring is also indicated to observe the levels of mercury in fish, zinc in selected food groups such as cereal products and milk, and cadmium and lead in other foods. The use of dichlorvos on cereal products gives no cause for concern. Council recognised the need for continued surveillance of the level of pesticide residues in food. Investigations are being carried out into eight food groups and these analyses included organo-chlorines and metals such as arsenic, cadmium, copper, lead, mercury, tin and zinc.

Australian Arbo-encephalitis

Concern was expressed at the potential threat of a further outbreak of Australian Arbo-encephalitis in the Murray Valley. Recommendations were made on research, vector control, insecticide improvements and evaluation of control measures.

Air pollutants in the environment

Draft guidelines were considered for methods of sampling, analysis, measurement and reporting of air pollutants in the environment. Council noted that State air pollution control authorities were already planning an expansion of their resources using methods recommended in the draft guidelines.

Hospital and Allied Services Advisory Council Secretariat

For administrative purposes, the Secretariat of the Hospital and Allied Services Advisory Council (HASAC) forms part of the NH & MRC Division of the Department. HASAC is an independent advisory body established in 1970 to advise the Australian Health Ministers' Conference on matters related to hospital and allied services. A number of committees have been set up to advise HASAC, and it also sets up *ad hoc* committees when necessary. It currently has an *ad hoc* Nursing Homes Committee.

An important part of the activities of the HASAC Secretariat is the development and maintenance of the Council's library. Bibliographies covering each general area of the Council's activities are circulated to members on a regular basis as a part of the library's information service. Bibliographies are also produced to assist individual technical working parties.

Members of HASAC are chief officers and senior administrative officers of Commonwealth and State Health and Hospital Departments or Commissions, the Commonwealth Department of Social Security and the Chairman of the Hospitals and Health Services Commission. The Department of Repatriation provides representatives as observers. The Director-General of Health is the senior departmental representative on the Council.

Northern Territory Division

There has been wide circulation of a discussion paper on a Northern Territory Health Commission following the successful introduction of the Capital Territory Health Commission.

The reconstruction program in Darwin is gaining impetus and housing and services are rapidly being restored to their pre-cyclone condition to cater for the city's increasing population. This has considerably improved the morale of the people. Throughout the rest of the Territory high priority has been given to the construction and maintenance of health centres.

Aboriginal health is of great concern and staff are aware of the need for self-determination by Aboriginal people. It is on this basic philosophy that the Aboriginal Health Worker Program has been devised. This program will enable Aboriginal communities to manage their own day to day health care. A medical anthropologist from the School of Public Health and Tropical Medicine evaluated the program during the year and commented favourably on it. Aboriginal health workers participated in the production of a film on their work which will be shown in all Aboriginal communities.

The Department and the Australian College of Ophthalmologists are jointly investigating the eye problems of Aboriginal people in the Northern Territory. These positive steps towards the improvement of Aboriginal health have been boosted by the establishment of an office of the National Acoustics Laboratory in Darwin to assess and treat chronic ear disease.

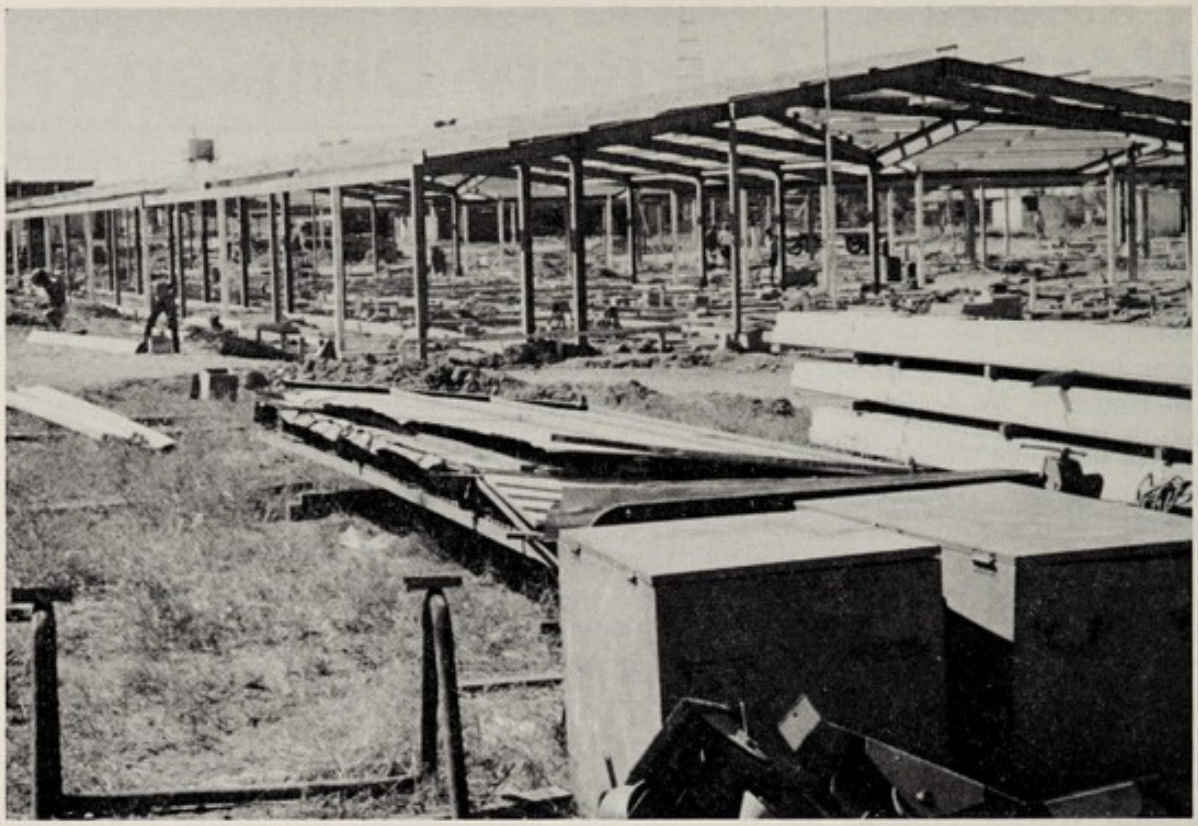
Contributions were invited from Aboriginal writers and artists to produce bilingual health booklets to be used in their communities. The first of these, on hookworm, was produced in the Maung language.

Community health services

Urban community health centres have developed highly successful family-centred health and dental services, including screening, prevention and health education.

Staff shortages in the medical, paramedical and nursing fields are critical in rural areas. Lack of shelter, running water, sewerage and garbage disposal in rural communities also limits progress. The Aerial Medical Service faces an enormous project in promoting rural health but the situation is improving with the provision of fixed and mobile radios in health centres, special purpose vehicles, and the establishment of radio control centres in Darwin, Alice Springs and Gove.

The introduction of a uniform health centre monthly return for the Territory from July 1975 has increased the Division's capacity to assess health requirements. The data collected were examined at the third Regional Assistant Directors' Conference in April. Programs to combat malnutrition, venereal diseases, otitis media and conductive deafness and trachoma were discussed in detail. Incidence of venereal diseases, particularly gonorrhoea in urban areas and syphilis in rural areas, increased over the



Construction is under-way of a new hospital in Tennant Creek. It is due for completion in September 1978.

past two years. Meningitis incidence remained low, malaria was stable and hepatitis declined.

Maternal and infant deaths in the Northern Territory are regularly reviewed. The steady decline in Aboriginal infant mortality was maintained in 1975.

Management services

An Automatic Data Processing Branch was established but because of staff ceilings only minimal staffing was possible. An Impact stores inventory system has been developed and will be introduced in Darwin late in 1976. A new operational subsidy to missions of $5.00 per in-patient bed day was introduced during the year. The Legislation Branch provided information for the Executive Member of Social Affairs in the Legislative Assembly, monitored debates and compiled reports for the information of senior staff.

The first full financial year for the relocated office in Brisbane was completed. Planning has begun for the return of Brisbane-based staff to Darwin and this is being co-ordinated through a central committee in Canberra and a steering committee in Darwin.

Environmental health services

Relaxation of smallpox vaccination requirements for entry to Australia speeded up quarantine procedures at Darwin airport, but regular insect surveillance and collection on aircraft continued. The detection of Oriental fruit fly led to special procedures for Melville and Bathurst Islands in late 1975. All aircraft from these areas were disinsected and fruit confiscated.

During the August-September Timor crisis about 2800 refugees were cleared by quarantine officers. Arrested Taiwanese fishing vessels in Darwin harbour were not permitted to berth.

The number of new leprosy cases declined and more people were treated as out-patients in rural areas. Aboriginal health workers were active in the control program at health centres. A study of the immunology of leprosy in the Northern Territory is planned for 1977.

Mosquito surveys by the entomology section were highly successful. An extensive migration of the salt marsh breeding mosquito *Aedes vigilax* was found as far south as Pine Creek. Two forms of the common banded mosquito *Culex annulirostris*, the vector of Australian arbo-encephalitis, were discovered in the Darwin area.

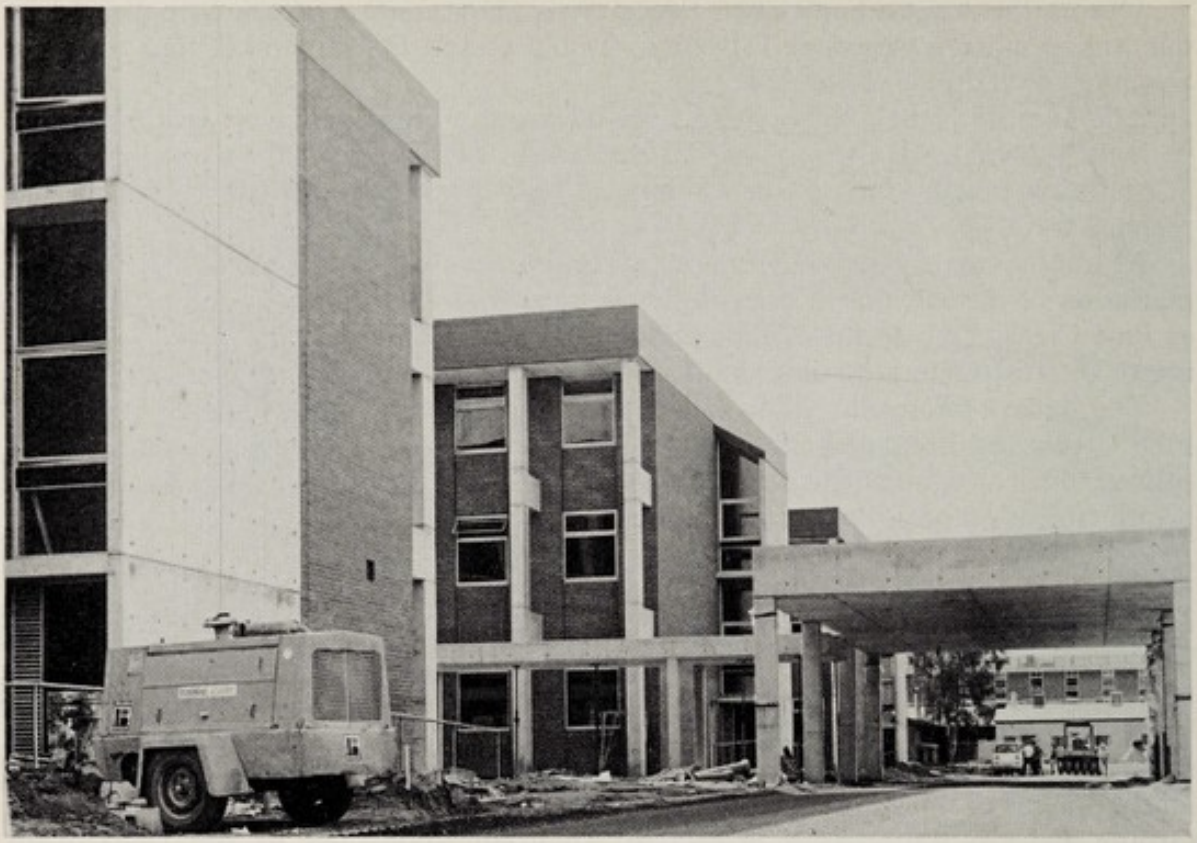
The dengue mosquito *Aedes aegypti* has disappeared from Adelaide River and Pine Creek and has not been reintroduced into Darwin. Fogging procedures have proved efficient against the reintroduction of malaria to the Northern Territory. A health education program on mosquitoes is in preparation.

Dental services

The school dental health program was expanded and 14 therapists are now employed. There are resident dental staff at Darwin, Alice Springs, Katherine, Tennant Creek and Gove. The University of Queensland's Dentistry Department carried out a periodontal survey at Bamyili and Yirrkala Aboriginal communities and a system of epidemiological indices was used to assess periodontal status. The Groote Eylandt fluoridation project at Angurugu sponsored by the Department continued.

The oral medicine clinic held weekly in Darwin is popular and provides a consultative service for referrals from hospitals, health centres and private practitioners.

Entomologist Mr Peter Whelan, left, and Technical Officer, Mr K. Hodder, prepare the LECO ultra low volume fogging machine for fogging mosquito breeding and harbouring areas in the Northern Territory.



The main entrance to the new Alice Springs Hospital ward block, due for completion in September 1976.

Base hospitals

Darwin Hospital was damaged considerably by Cyclone Tracy and rehabilitation and reconstruction of various sections are well advanced. Certain non-essential facilities are not being upgraded, so that time and money might be saved pending completion of Casuarina Hospital and subsequent permanent reconstruction of Darwin Hospital.

The services block of the redeveloped Alice Springs Hospital became operational during the year and the main ward block is nearing completion.

Nursing

Six nurses graduated from diploma courses at colleges of advanced education in December and returned to the Northern Territory. Nine are currently studying full time.

Introductory courses for nurses on the education of Aboriginal health workers were held in Darwin and Alice Springs and library facilities were upgraded in rural centres to complement this. Training of Aboriginal staff began in the Northern and East Arnhem Regions and is being prepared in the Southern Region. Four comprehensive family planning courses were conducted in Darwin during the year.

Provision for the enrolment of nurse aides and mothercraft nurses now exists and regulations for nurse aide training in the Northern Territory have been established.

Planning and development

The preparation of segments for a total health plan for the Northern Territory to 1990 is continuing. Segments completed this year include Darwin Hospital 1976-1983,

Central Australian Medical District, leprosy, health education and geriatric. Dental, pathology and segments for all Northern Territory hospitals outside Darwin are nearing completion. Information from the trachoma and ear survey of Aborigines at Wave Hill and Hooker Creek has been coded. Interest in the Northern Territory Medical Service 'Bulletin' has widened and the normal content of hospital, abortion and infectious diseases statistics has been supplemented with information on health centres and poison cases.

In Darwin, major concern has been the restoration of cyclone-damaged buildings and the Department met with the Darwin Reconstruction Commission and the Department of Construction to constantly review all projects. Darwin Hospital is being reconstructed to meet the requirements of the Darwin population until Casuarina Hospital opens in April 1979. The expected completion date for the Alice Springs Hospital ward block and accommodation is September 1976. Construction of the Tennant Creek Hospital and an additional ward and accommodation at the Katherine Hospital is ahead of schedule.

Health centres were commissioned at Mataranka, Wattie Creek, Wave Hill and Yirrkala and those in progress include Adelaide River, Delissaville, Docker River, Hooker Creek, Oenpelli, Papunya, Timber Creek, Umbakumba, Utopia and Yuendumu. An interim health centre has been built in the northern suburbs of Darwin.

The continued division of planning activities between the Northern Territory and Brisbane-based sections of the staff has had its inevitable effects on the speed of planning initiatives.

Regions

Preparations are being made to regionalise the administration of health services. This will give local authority and responsibility to the three regions but a shortage of district medical officers is delaying this process.

In the Northern Region, completion of extensions to the Katherine Hospital will relieve the shortage of patient accommodation and will upgrade services.

Mobile teams working in the Southern Region have developed a team concept which has led to good relationships with station people and Aboriginal communities. The Alice Springs Community Health Centre expanded its role to include supportive care for the aged and a child assessment and therapy program in co-operation with the Department of Education. A psychiatric service commenced in the new Psychiatric Day Centre but ceased late in 1975 because of staff resignations.

A successful family planning clinic commenced in October 1975 at Gove. A crèche is planned for the hospital to encourage married female staff to stay. Major developments have begun at Elcho Island in housing, water supply and sewerage. The five Aboriginal health workers employed at the new Yirrkala Health Centre are directly responsible for many aspects of health care and manage the centre with considerable enthusiasm.

Divisional Offices

It was a demanding year for the Divisional Offices in the State capital cities. All State offices faced the challenge of financial and staffing restrictions in their routine administrative functions and in the supervision of regional offices and laboratories. Increased workloads were reported by most offices, particularly in their quarantine, pharmaceutical benefits and hearing centre activities.

During the year the State offices assumed additional responsibilities following the transfer to the Department in December 1975 of some functions formerly administered by the Department of Social Security. This necessitated the setting up in each State office of a Health Benefits and Services Branch to undertake the day-to-day operation at State level of the functions of the Medical Insurance Services Division and the Hospital Insurance and Nursing Division.

Quarantine

Although there was a further increase in the number of wide-bodied aircraft arriving from overseas, the clearance of passengers at international airports proceeded satisfactorily throughout the year. The relaxation of requirements for cholera and smallpox vaccination certificates, while expediting passenger clearance, has not reduced the need for quarantine vigilance, particularly in respect of yellow fever. A close scrutiny of passengers arriving with a fever was also made to eliminate the possibility of Lassa Fever or Marburg virus disease which are quarantinable diseases and for which there are no protective vaccines.

There was no decrease in the number of people seeking smallpox vaccination and there was an increasing number of inquiries about anti-rabies precautions from travellers who were bitten or scratched by animals while overseas.

At Sydney, refugees continued to arrive from war devastated areas in South East Asia and Quarantine Branches in the States helped co-ordinate their medical assessment on arrival in Australia.

The new transit lounge at Perth Airport was completed during the year, bringing it to a standard equal to that of Sydney and Melbourne International Airports.

Handicapped child's allowance

The allowance of $10 a week to parents and guardians caring for severely handicapped children in their own homes was introduced on 1 Janaury 1975. There was a reduction in the number of applications and an increase in the rejection rate in all States in 1975-76. During the year Divisional Offices processed 6140 applications (compared with 16 469 for the first six months of the scheme) of which 5146 were approved and 994 or 16.2 per cent were rejected.

Medical disabilities most often encountered included Down's syndrome, mental retardation, the after effects of poliomyelitis and deafness.

During the year offices of the Departments of Health and of Social Security reviewed the medical criteria and procedures for claiming the handicapped child's allowance, including the claim form and the appeals system.

Hearing centres

There was an unprecedented increase in the number of behind-the-ear hearing aids issued at hearing centres in all States during the year.

New techniques were developed in the fitting of new highly powered behind-the-ear aids. After some early difficulties the success rate proved better than had been expected. Very deaf adults and children as young as two were fitted successfully. Parents and children were pleased with the appearance of the aid and teachers of deaf children reported a marked improvement in learning ability.

Following the introduction of the new range of behind-the-ear hearing aids, NAL hearing centres engaged in a program of reviewing the hearing amplification requirements of deaf children. In Queensland, for example, this program is proving very worthwhile, with most of the children whose hearing has been re-evaluated being changed over from body-worn to behind-the-ear aids.

Mr Tom Miley, Officer-in-Charge of the Department's Plant Quarantine Station at Bruny Island, Tasmania, examines a number of American chestnut trees being grown under quarantine conditions at the Station. These specimens are disease-free at a time when blight is destroying the American chestnut in its native land.

In South Australia, increased specialisation in different areas of audiology, the need for better assessment of child aid users and closer liaison with teachers of the deaf resulted in the setting up of a paediatric unit. School services were increased and detailed evaluations of children enabled more information to be given to teachers. The paediatric unit should become fully operational during the next 12 months.

Courses and conferences

The women's Health Conference conducted as part of Australia's contribution to International Women's Year was held at the University of Queensland in August 1975. Staff from the Department's Divisional office in Brisbane assisted at the conference, which was attended by some 1000 delegates and observers from Australia and overseas.

Brisbane was also the venue for the World Health Organization First Regional Course in Medical Physics (Western Pacific Zone). The course was hosted by the Commonwealth Government through the Department of Health. The Queensland Department of Health, the Queensland Institute of Technology and the Queensland Radium Institute assisted with the three weeks course which was attended by 11 delegates from five countries.

Under construction in Queenstown, Tasmania, is the modern two-storey building, centre, which will house the Queenstown Medical Union. Seventy-five per cent of the capital cost of the building was provided under the Commonwealth Community Health Program.

Child psychologist, Mrs Sue Ellen Cowell, consults with a young client at the Health Commission of New South Wales community health centre, at Caringbah, a Sydney suburb. The Centre provides a wide range of services for people of all ages. (Photo: Health Commission of N.S.W.)

Community Health

Divisional offices continued their involvement in community health at the local level by their close association with community health management committees and also as links between the Community Health Program and State authorities.

In Tasmania a site was acquired for a community health centre for the Eastern Shore of Hobart, and construction of this centre is well under way.

Pharmaceutical benefits

Divisional offices recorded a marked increase in applications for special authorities for certain pharmaceutical preparations following the amendments to the Pharmaceutical Benefits Schedule on 1 April, 1976. For example, in South Australia the restrictions imposed on the prescribing of alginic acid compound and calcium compound increased the number of authorities issued in April 1976 by 46 per cent over the number issued in April 1975. The number of authorities issued in South Australia for 'authority only' items has doubled.

Divisional offices continue to detect a number of forged prescriptions for narcotics and psychotropic drugs and pharmacy breakings by people attempting to obtain narcotics has led to some pharmacies ceasing to stock narcotics.

Routine visits and inspections of pharmacies were affected by the cutback in funds available for these activities and it was necessary to delay or curtail visits to some country areas.

'On line' processing of chemists claims for pharmaceutical benefits is being used in the Divisional Offices and training of data processing officers in the new methods continued in those States which have introduced the system during the past year.

Nursing homes

Divisional offices dealt with many requests during the year for variations in fees for nursing homes receiving Commonwealth benefits and to budgets of nursing homes receiving subsidy under the deficit financing arrangements.

Medical activities

Apart from the traditional tasks of medical assessment, vaccination and inoculations, the Medical Branches in the Divisional Offices were involved in some new activities during the year. Medical officers in some branches were required to carry out medical examinations of visitors who applied for permanent resident status during the Commonwealth Government's amnesty period for unauthorised immigrants. The New South Wales Division in particular, reported a number of cases of active pulmonary tuberculosis in this group of people.

The new Commonwealth Superannuation Scheme will bring changes in procedures relating to medical examinations. Commonwealth Medical Officers will be appointed as delegates for the determination of fitness of applicants to become contributors. Previously this function was the responsibility of the Public Service Board.

Pathology laboratories

The Department's program of extension and replacement of pathology laboratory buildings in the States has continued.

One of the more recent developments has been the acquisition of a site for a proposed Departmental pathology laboratory in Hobart, designed to combine the separate laboratories of the Department of Health and the Repatriation Department.

School of Public Health and Tropical Medicine

During the year the School of Public Health and Tropical Medicine continued its broad scope of teaching activities and its consultative and advisory functions. It undertook a wide range of research into environmental health, medical entomology, nutrition, occupational health, parasitology, pathology and microbiology, preventive and social medicine, radiation biology and tropical medicine.

Postgraduate diploma programs continued in Public Health, Tropical Medicine and Hygiene and Occupational Health and substantial contributions were also made to a number of other postgraduate diploma courses. Staff took part in undergraduate teaching of medicine, architecture, education and engineering at the University of Sydney, and medicine at the University of New South Wales.

Eleven Diplomas in Public Health, seven in Tropical Medicine and Hygiene and 18 in Occupational Health were awarded to successful students of the 1975 intake. Fifteen of the Occupational Health students were sponsored by the Department as part of its Occupational Health Program. In the academic year beginning in March 1976 there were only three Occupational Health students. The smallness of the intake was probably due to the unavailability of sponsorship.

The Second Regional Course in Occupational Health, organised in conjunction with the World Health Organisation Regional Office for the Western Pacific, was conducted by members of the School's Occupational Health Section. The 13 participants were from Government departments of health and labour, from universities, hospitals, health centres and industry in six countries. A similar course is being planned for November-December 1976.

Environmental Health

Research by the Environmental Health Section was directed mainly towards devising methods for automatic calculation of the more important indices of heat stress. Previously such calculations involved the laborious use of nomograms, tables or complicated mathematical procedures. The methods devised have already been applied successfully. One application is in the assessment of the thermal protection, and resultant saving in water requirements, provided by service life rafts afloat in the tropics. Another is the determination of the relative effectiveness of the various indices in predicting the thermal stress (as measured by their physiological responses) experienced by the indigenous people of New Guinea in their daily life. The methods devised also made possible a detailed analysis of the relation between effective temperature, one of the most widely used indices of thermal stress, and other indices currently in use. Work on this problem, which is of fundamental importance for the definition of safety standards for industry, is continuing.

The Section undertook a number of *ad hoc* investigations on behalf of government departments and other bodies. These included a survey, made at the request of the Department of Transport, of the habitability in hot weather of vehicles used for runway maintenance and safety services at Sydney Airport. Another, for the Victorian Department of Railways, was the determination of maximum tolerable levels of heat, in terms of temperature, humidity, wind-speed and activity for unprotected men.

The most interesting request had its origin with the thalidomide tragedy which occurred some 15 years ago. Some children born without usable arms are dependent on others to bath and dress them and perform other intimate tasks. The parents of one such child who is unable to use a towel, sought engineering advice on the design of a drying cabinet or cubicle supplied with warm air so that the child (now a young woman) could take a bath and dry herself without assistance. The engineers found that there was a complete lack of information on acceptable air temperatures, humidities and velocities. They had to consider such problems as effective drying of the crevices of the body, whether the dissolved matter in the water normally removed by a towel would form an objectionable film, and whether the drying could be accomplished in an acceptable time.

Experiments in a climatic chamber provided answers to all these problems and normal children volunteered to enable the results to be verified.

Medical Entomology

Experiments at the Virus Research Institute, Entebbe, Uganda, have indicated that the Australian mosquito, *Aedes notoscriptus*, is unable to transmit the virus of yellow fever. This information now makes more significant the eventual eradication of *A. aegypti*, the known vector of yellow fever and dengue in Northern Australia.

Research on the mosquito fungal pathogen, *Culicinomyces* sp., has resulted in a simplified method of re-isolation from infected larvae and demonstrated the ability of adult mosquitoes to transmit the infection to other larval populations. However, it has failed to provide evidence that the fungus produces a toxin lethal for mosquito larvae.

Weather patterns for the eastern half of Australia were followed in an attempt to predict the possibility of an outbreak of Australian arboencephilitis (Murray Valley encephilitis) during the 1975-76 summer season. In addition a field training course in vector control was held at Mildura for a number of health inspectors from Victoria, South Australia and New South Wales.

Techniques of aircraft disinsection have been under review and experimental procedures monitored on international flights.

Nutrition

A number of research projects are being undertaken by the Section and should be completed in the next year. A survey of infant feeding practices, funded by a research grant from the Inger Rice Foundation, was begun. An investigation of the nutritional intake status of vegetarian and non-vegetarian pre-school children is continuing and a study is being made of the calcium intake and excretion of women. Two smaller surveys to determine the crude fibre intake of a variety of population groups are nearing completion.

The staff of the Section co-operated with the Health Commission of New South Wales in a Vitamin C supplementation trial in Walgett. Work also began on a study of dietary sodium intakes, with particular reference to the effect of vegetable preparation and cooking procedures.

Plans are being made for a study of the effectiveness of hospital food services and work is nearing completion on a computer program to calculate nutrient intake from food intake data. This program will make possible the rapid updating of food tables as new figures on food consumption come to hand.

A survey to assess the nutrition knowledge of food shoppers and their ability to use information on food labels is planned for later in the year.

Occupational Health

The Occupational Health Section is continuing its segment of the National Blood Pressure Study with staff of Australia Post and the Sydney office of the Taxation Department; 11 000 employees of all ages and both sexes have already been screened. Of those people aged over 30 years, about 4 per cent entered the national trial of the effects of treatment in mild hypertension. Another 16 per cent in this age group were either undergoing treatment or had one or more exclusion factors—such as an excessively high blood pressure, pregnancy, heart disease, asthma or diabetes. Work was also undertaken on a pilot study of the effects of social and personal factors in young employees with marginal hypertension. This will be a prelude to an intensive study of occupational factors in hypertension and of the benefits of non-pharmacological intervention.

A comprehensive study of the health of employees of the Research Establishment of the Australian Atomic Energy Commission at Lucas Heights near Sydney, continued. About two-thirds of its 1100 employees have so far been examined for any possible long-term effects of past exposure to ionising radiation or toxic chemicals in the work environment. At the same time environmental surveys are being made of potentially dangerous work situations. No results of the interviews are yet available, although trials of computer methods have been conducted so that analysis can proceed as soon as the last interview is complete.

Associate Professor B. McMillan, of the School of Public Health and Tropical Medicine, obtains samples of blood from Timorese refugees at a Commonwealth Hostel for studies on filaria.

Parasitology

Taxonomic and biological studies on Australian fresh-water molluscs continued. A field-trip to south-western New South Wales in September resulted in collections from 41 sites, colonies of which are being maintained. Examination of this material revealed a degree of synonomy among the nominal species of Australian Planorbidae. Electrophoretic techniques were refined to demonstrate finer differences between taxonomic groups. Strains of African *Bulinus* and South American *Australarbis* were imported and colonised for comparative and life-cycle studies. Routine morphological examinations revealed some consistent differences between Australian snails and the closely related African species *B. truncatus* and *B. tropicus*.

Studies on parasitism in the Australian community were also continued and the presence of adult *Toxocara cati* in man in Australia was recorded for the first time. The first record of *Entamoeba moshkouskii* in Australia was made in sewage in Sydney and Adelaide.

Pathology and Microbiology

The routine annual investigation of several hundred healthy meat inspectors for salmonella infection disclosed that only between 1 and 2 per cent were carriers. This low figure is representative of the community generally and is largely due to the stringent controls of food handling and preparation in Australia which results in a very low rate of isolations from prepared food samples.

Eight cases of a suspected pox infection were referred to the Section. Two were positive for vaccinia and one for varicella zoster. These cases were either primary vaccinees inoculated shortly before going overseas or who reported some weeks after vaccination. They reinforce the opinion that inoculation of overseas travellers should be carried out one month before departure so that any abnormal reaction can be referred to a consultant. Work is now being carried out by the Section to estimate antibody response after primary anti-smallpox vaccination.

Radiation Biology

The laboratory animal most used in the work undertaken by the Radiation Biology Section is known as the nude mouse. It is an unusual animal, bereft not only of hair but also of a normal thymus gland. The latter deficiency results in its total inability to reject grafted foreign tissue—a characterstic which is most important to the Section's research into cancer.

The Radiation Biology Laboratory uses nude mice to grow human cancer cells, this being one of the few ways of growing cancer tissue isolated from the patient yet still in a normal animal environment. This work has shown that cells from a variety of human cancers will grow in these mice and it is intended to study the response of grafted cancer tissue to radiation and, possibly, chemotherapeutic drugs. The results of such work may be used to predict patient response to radiation or drug therapy resulting in improved methods of cancer treatment.

Tropical Medicine

An important task of this Section was the planning and implementation of a reorganised course for the Diploma in Tropical Medicine and Hygiene. While this course has undergone change over the years the present reorganisation represents a major development. It takes into account the changes which would be made if the diploma course were restructured as a program leading to a Master's degree.

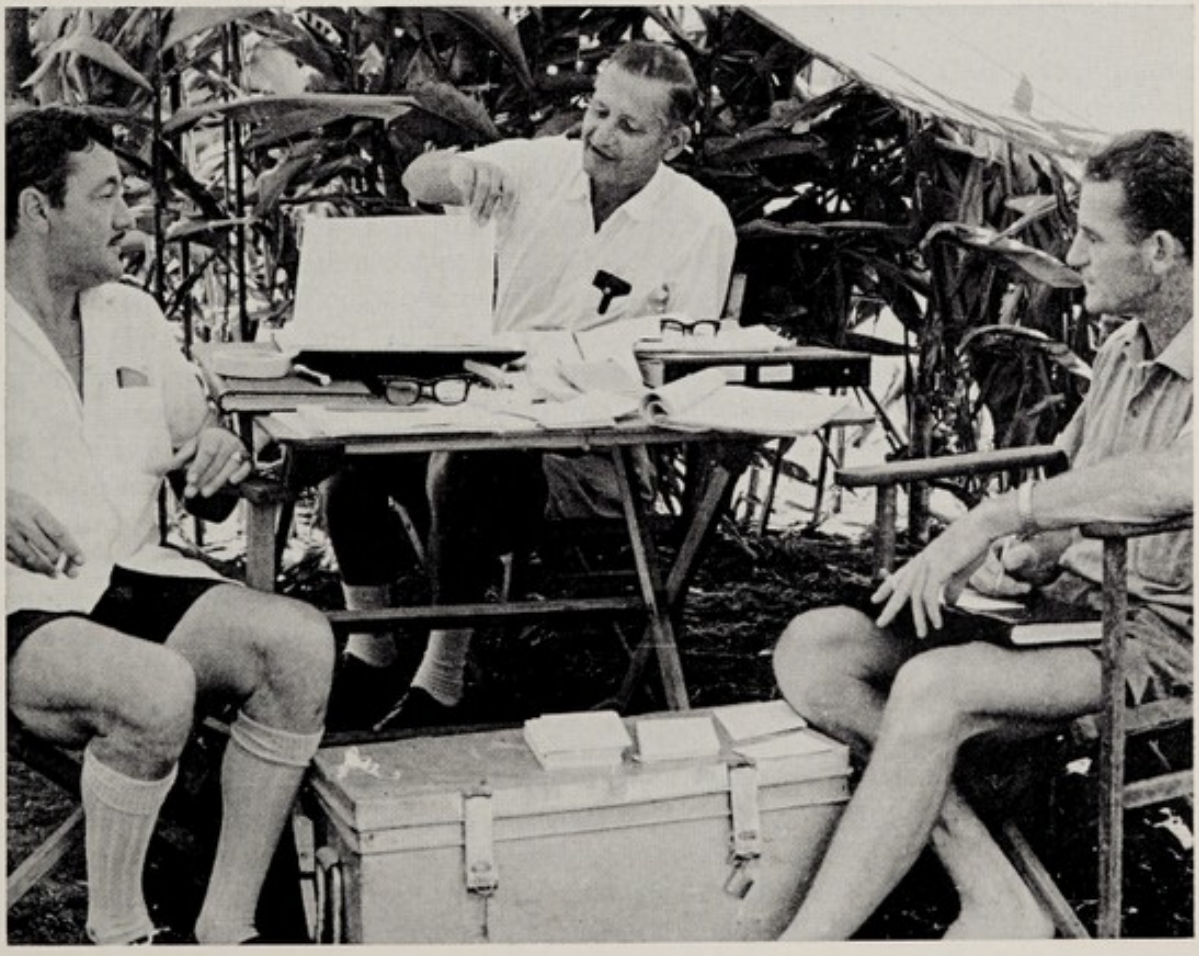
The course in its new form still complies with the requirements of the University of Sydney and is divided into two parts. In the first part the basic subjects are presented. These are tropical medicine, entomology, parasitology, bacteriology and pathology, introductory epidemiology and statistics and a course on the characteristics of the tropical world and its people. In the second part of the course the material presented in the first is brought together and developed further into two main streams: the epidemiology and control of specific tropical diseases, and health services. In addition, the work relating to family planning has been expanded and new material, on management and education, has been introduced. The new arrangements should be better suited to the object of the course—the preparation of physicians for their role of district health officers in tropical countries.

Miss Nancy Frith, a former staff member of the School, was adjudged outright winner of the Judy Inglis Memorial Award for 1976 by the Australian Institute of Aboriginal Studies for her book *Experiences in Public Health Nursing* (School of Public Health and Tropical Medicine Service Publication No. 10). Written as an account of her work as a staff member engaged in research connected with the Coasttown Project, this valuable work deals with the health of Aborigines and the ways of providing better care for them.

Preventive and Social Medicine

The study of methods of improving delivery of family planning services to people in lower socio-economic groups is nearly complete. The data collected on unplanned and

Dr G. C. Scott, left, and Mr D. R. Vincin, right, both of the School of Public Health and Tropical Medicine, discuss progress on the Karimui leprosy study with Dr D. A. Russell, of the Public Health Department, Papua New Guinea.



unwanted pregnancies which terminate in abortion, were analysed and provided a profile of 'women at risk' because of unwanted pregnancy. Further studies disclosed information on women's attitides to, knowledge of, and use of, family planning services and channels of communication.

Work on the detection of neural tube defects continued and all women in the Sydney area undergoing amniocentesis in the second trimester are routinely screened by alphafoetoprotein estimation. An epidemiological study of neural tube defects is now complete and the results are being prepared for publication. A malformation surveillance and counselling program was initiated in the Northern and Western Health Regions.

The Karimui Leprosy Study is in its final stages. Data collected during the last 15 years on the efficacy of BCG vaccination, a control program using acedapsone and the demographic features of the Karimui population, was edited and prepared for analysis in 1976-77.

Teaching responsibilities undertaken by the Section's staff are still extensive. They include courses in behavioural science and preventive and social medicine to undergraduate medical students and courses for the Diploma in Public Health and the Diploma in Tropical Medicine and Hygiene in addition to *ad hoc* courses on international health arranged by the Australian Assistance Development Agency.

Institute of Child Health

The Institute of Child Health is situated in a building specially erected on behalf of the Australian Universities Commission in the grounds of the Royal Alexandra Hospital for Children, teaching hospital of the University of Sydney. It acts, in fact, as the Department of Child Health of the University.

The library of the Royal Alexandra Hospital for Children, which is supported by the Institute of Child Health and the Hospital, was greatly augmented during the year. It receives almost all of the English language paediatric journals published in the world, as well as many foreign language ones.

The Director of the Institute, who is also Professor of Child Health at the University of Sydney, continued as Secretary-Treasurer of the International Paediatric Association and completed a two-year term as a member of the Protein-Calorie Advisory Group of the United Nations. He was also invited to write the inaugural guest editorial in *Mother and Child*, a new journal of Paediatrics, Obstetrics and Gynaecology for South-East Asia.

His work as Chairman of the Committee of Children at Risk of the Royal Alexandra Hospital for Children increased considerably. Improved arrangements were made for helping these children and their parents.

At the request of the Department of Science, the Professor of Child Health gave the keynote address to the Indian Science Congress in Waltair, Andhra Pradesh, in January 1976 on 'Approaches to Integrated Rural Development'.

The main activities of the Department of Child Health continued to be the undergraduate teaching program for the University of Sydney. A special project was undertaken by Dr H. S. Chen to compare the Chinese paediatric textbook with the practices recommended in textbooks commonly used in western countries.

Dr Helen Walsh and Dr Bryan Dowd continued their survey and follow-up of rheumatic fever, chorea and rheumatic heart disease. The long-term study began in 1952. Its two main aims were to determine the effectiveness of penicillin prophylaxis in preventing rheumatic recurrence and ultimate heart damage and to study the natural history and progress of the disease in a group of Australian children. Since the study began nearly 300 patients have received regular prophylaxis with penicillin.

In addition to those who receive prophylaxis from the clinic, a large number of other rheumatic patients were seen and the progress of their illness studied. The clinic also acts as a consultation centre for paediatricians and general practitioners who wish to refer children for an opinion concerning diagnosis or management of this and related disorders. A number of children suffering from rheumatoid arthritis were recently referred.

The paediatricians who conduct the study prepared a booklet, *Rheumatic Fever: A Student's Guide*, for undergraduate and post-graduate medical students.

Professor Peter Rowe continued research work on folic acid metabolism, mammalian purine metabolism and central nervous system transmitters. During the year more equipment was installed. This allowed investigations into clinically related

research problems of folic acid metabolism, initiated last year, to be expanded. Progress in these studies was aided by co-operation of members of the hospital staff, and the establishment of a research ward in the hospital by a staff member trained in the Institute.

Child psychiatry

The Associate Professor of Child Psychiatry has active involvement in teaching of medical students, post-graduate doctors, nurses and social work students. He participated in a convention at Adelaide Children's Hospital on 'Paediatric Care in a Changing World' and delivered a paper at the General Practitioners' convention on 'The Basic Needs of Children'.

He was re-elected to the Board of Governors of the Vern-Barnett Centre for Autism and continued as a member of the Research Committee for the Apex Trust for Autism. He was also appointed a member of the Child and Adolescent Health Advisory Group of the Inner Metropolitan Health Region of New South Wales.

Dr Reuben S. Dubois, a research medical officer, began his laboratory work on intestinal metabolic function and bile acid metabolism. He was granted research assistance both by the National Health and Medical Research Council and the Cystic Fibrosis Association of New South Wales.

Another research medical officer, Dr David Bau, continued to run and expand the special clinic for the treatment of children with thalassaemia.

Appendix 1—Statistics

CONTENTS

Quarantine

Therapeutics

Public health

Notes on statistics

Any discrepancies between totals and sums of components in tables are due to rounding.

Yearly periods shown as, e.g. 1974, refer to the year ended 31 December 1974; those shown as, e.g. 1973-74, refer to the year ended 30 June 1974. Other yearly periods are specifically indicated.

Mean populations are calculated for 12-month periods to provide an average basis for calculations requiring allowance for the continuous change in population figures during such periods. Mean populations are used for the calculation of rates such as crude birth rate, death rates, etc.

Values are shown in Australian dollars ($).

p Preliminary—figure or series subject to revision.

r Figure or series revised since previous report. Derived statistics based on population estimates have been re-calculated to conform with revised population estimates.

n.a. Not available.

— Nil.

A.B.S. Australian Bureau of Statistics.

W.H.O. World Health Organisation.

U.N. United Nations.

HEALTH INDICATORS

Life expectancy, birth and death rates

TABLE 1 COMPARATIVE EXPECTATION OF LIFE—1881-1890 TO 1974

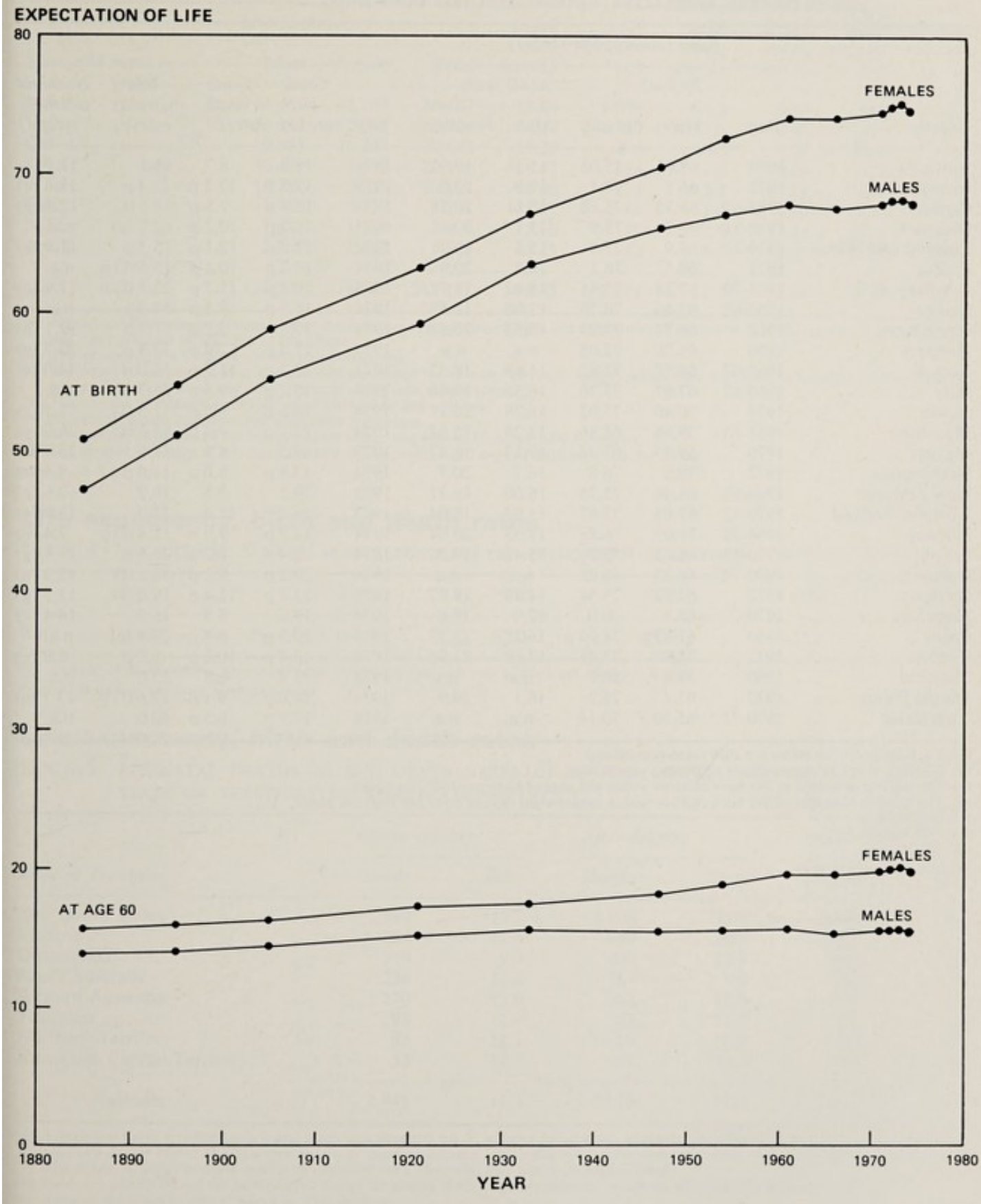
	Expectation of life (years)			
	At birth		*At 60 years*	
Year	*Males*	*Females*	*Males*	*Females*
1881-1890	47.20	50.84	13.77	15.39
1891-1900	51.08	54.76	13.99	15.86
1901-1910	55.20	58.84	14.35	16.20
1920-1922	59.15	63.31	15.08	17.17
1932-1934	63.48	67.14	15.57	17.74
1946-1948	66.07	70.63	15.36	18.11
1953-1955	67.14	72.75	15.47	18.78
1960-1962	67.92	74.18	15.60	19.51
1965-1967 (a)	67.63	74.16	15.27	19.52
1971	67.95	74.51	15.42	19.73
1972	68.19	74.99	15.45	19.97
1973	68.23	75.17	15.48	20.07
1974	68.01	75.03	15.34	19.91
Increase in life-expectancy since 1881-1890	20.81	24.19	1.57	4.52

(a) Figures from 1965-67 onwards are based on population and death statistics including Aborigines.

Source: Australian Government Actuary and A.B.S.

Life expectancy, birth and death rates

GRAPH 1 COMPARATIVE EXPECTATION OF LIFE—1881-1890 TO 1974



Life expectancy, birth and death rates

TABLE 2 COMPARATIVE EXPECTATION OF LIFE, CRUDE DEATH, CRUDE BIRTH, INFANT MORTALITY AND NEONATAL MORTALITY RATES—SELECTED COUNTRIES

	Expectation of life (years)									
		At birth		*At 60 years*						
Country	*Year*	*Males*	*Females*	*Males*	*Females*	*Year*	*Crude birth rate(a)*	*Crude death rate(b)*	*Infant mortality rate(c)*	*Neonatal mortality rate(d)*
Australia	1974	68.01	75.03	15.34	19.91	1974	18.3	8.7	16.1	11.6
Austria	1972	66.8	74.1	19.0	23.6	1974	12.8 p	12.5 p	23.4 p	18.6 (e)
Canada	1965-67	68.75	75.18	16.81	20.58	1974	15.4 p	7.5 p	15.5 (f)	12.4 (g)
Denmark	1970-71	70.7	75.9	17.1	20.6	1974	14.2 p	10.2 p	12.2 (e)	n.a.
England and Wales	1970-72	68.9	75.1	15.3	19.9	1974	13.0 p	12.1 p	15.5 p	11.6 (g)
France	1971	68.5	76.1	16.2	20.9	1974	15.2 p	10.4 p	15.5 (f) p	n.a.
Germany, F.R.	1968-70	67.24	73.44	15.02	18.77	1974	10.1 p	11.7 p	22.7 (f)	17.9 (g)
Greece	1960-62	67.46	70.70	17.00	18.85	1974	16.1 p	8.5 p	24.0 p	n.a.
Hong Kong	1968	66.74	73.29	15.65	20.54	1974	19.3 p	5.2 p	17.7 p	12.1 (g)
Hungary	1970	66.28	72.05	n.a.	n.a.	1974	17.8 p	12.0 p	33.9 p	28.7 (g)
Ireland	1965-67	68.58	72.85	15.63	18.37	1974	22.3 p	11.2 p	18.0 (f)	14.0 (e)
Italy	1964-67	67.87	73.36	16.35	19.46	1974	15.7 p	9.6 p	25.7 (f)	n.a.
Japan	1972	70.49	75.92	16.78	20.17	1974	18.6 p	6.5 p	11.3 (f)	7.7 (e)
Mauritius	1961-63	58.66	61.86	13.24	15.82	1974	27.1 p	7.3 p	63.3 (f)	26.9 (g)
Mexico	1970	59.39	63.43	17.13	18.47	1973	47.5	8.5	51.9	23.4 (e)
Netherlands	1972	70.8	76.8	16.7	20.7	1974	13.8 p	8.0 p	11.0 p	8.6 (e)
New Zealand	1960-62	68.44	73.75	16.00	19.27	1973	20.5	8.5	16.2	10.6 (g)
Northern Ireland	1970-72	67.63	73.67	15.03	18.94	1973	18.7	11.4	21.0	13.9 (e)
Norway	1966-70	71.09	76.83	17.33	20.64	1974	14.9 p	9.9 p	11.8 (f) p	9.4 (g)
Poland	1970-72	66.83	73.76	15.48	19.26	1974	18.4 p	8.2 p	23.5 p	17.8 (g)
Romania	1970-72	66.27	70.85	n.a.	n.a.	1974	20.3 p	9.1 p	38.1 (f)	15.3 (g)
Scotland	1972	67.17	73.54	14.43	18.87	1974	13.4 p	12.4 p	19.0 (f)	13.5 (g)
Singapore	1970	65.1	70.0	12.9	15.6	1974	19.9	5.3	16.5	14.4 (e)
Spain	1960	67.32 p	71.90 p	16.28	18.77	1974	19.3 p	8.4 p	29.9 (e)	n.a.
Sweden	1972	71.97	77.41	17.68	21.06	1974	13.4 p	10.6 p	9.2 p	8.8 (g)
Thailand	1960	53.6	58.7	n.a.	n.a.	1972	32.8	6.8	27.0	n.a.
United States	1972	67.4	75.2	16.1	20.9	1974	15.0 p	9.1 p	17.6 (f) p	13.7 (e)
Yugoslavia	1970-71	65.30	70.14	n.a.	n.a.	1974	17.9 p	8.5 p	40.0	n.a.

(a) The number of live births per 1000 mean population.
(b) Number of deaths registered per 1000 mean population.
(c) The number of deaths of live born children within one year of birth per 1000 live births.
(d) The number of deaths of live born children within twenty-eight days of birth per 1000 live births.
(e) 1972 figures.
(f) 1973 figures.
(g) 1971 figures.

Source: U.N. and W.H.O.

Life expectancy, birth and death rates

TABLE 3 BIRTHS, BIRTH RATES AND DEATH RATES—STATES AND TERRITORIES—1974

State or Territory	Live births(a)			Crude birth rate(b)	Still-births (c)	Still-births rate(d)	Crude death rate(e)	Infant mortality rate(f)	Neonatal mortality rate(g)
	Male	Female	Total						
N.S.W.	44 465	41 697	86 162	18.09	1 036	11.9	9.24	16.57	12.27
Vic.	33 993	32 208	66 201	18.17	787	11.8	8.47	14.94	10.88
Qld	19 605	18 247	37 852	19.23	406	10.6	9.21	16.01	11.63
S.A.	10 489	9 692	20 181	16.53	236	11.6	8.39	15.46	11.30
W.A.	10 282	9 925	20 207	18.39	274	13.4	7.08	16.18	10.79
Tas.	3 760	3 638	7 398	18.42	82	11.0	8.68	16.63	10.14
N.T.	1 444	1 364	2 808	27.60	51	17.8	5.65	36.68	23.50
A.C.T.	2 257	2 111	4 368	24.25	42	9.5	4.21	16.03	11.45
Aust.	126 295	118 882	245 177	18.33	2 914	11.8	8.66	16.14	11.64

(a) A product of conception, irrespective of the duration of pregnancy, which, after expulsion or extraction from its mother, breathes or shows any other evidence of life such as heart-beat.
(b) The number of live births per 1000 mean population.
(c) A product of conception of at least 20 weeks gestation (or at least 400 grams weight) which after expulsion or extraction from its mother, did not breathe or show any other evidence of life such as heart-beat.
(d) The number of stillbirths per 1000 of all births, live and stillborn.
(e) Number of deaths registered per 1000 mean population.
(f) The number of deaths of live born children within one year of birth per 1000 live births.
(g) The number of deaths of live born children within twenty-eight days of birth per 1000 live births.

Source: A.B.S.

Life expectancy, birth and death rates

TABLE 4 ABORIGINAL INFANT MORTALITY RATE (a)—NORTHERN TERRITORY—1971 TO 1975

	1971	1972	1973	1974	1975
Rate	142.9	87.0	79.7	55.6	50.1

(a) Number of deaths of live born Aboriginal children within one year of birth per 1000 live births.

Source: Northern Territory Medical Service.

Life expectancy, birth and death rates

TABLE 5 PERINATAL DEATHS (a) AND DEATH RATES (b) BY TIME OF CESSATION OF HEARTBEAT—STATE OR TERRITORY OF REGISTRATION—1973

State or Territory	Before delivery		After delivery		Total(c)	
	Deaths	Rate	Deaths	Rate	Deaths	Rate
New South Wales	989	11.2	1 105	12.7	2 133	24.1
Victoria	784	11.5	689	10.3	1 491	22.0
Queensland	379	9.9	490	12.9	878	22.8
South Australia	236	11.4	184	9.0	429	20.8
Western Australia	270	13.0	262	12.8	534	25.7
Tasmania	96	12.9	83	11.3	181	24.4
Northern Territory	35	12.3	59	21.0	99	34.7
Australian Capital Territory	52	12.5	51	12.5	104	25.1
Australia	2 841	11.3	2 923	11.8	5 849	23.3

(a) A perinatal death is defined as a foetal death or a neonatal death, where a foetal death relates to any child born after the twentieth week of gestation or any foetus of 400 grams weight or more at delivery, which did not, at any time after being born, breathe or show any other sign of life. A neonatal death relates to any child born alive who dies within 28 days of birth.
(b) Rates are per 1000 total births registered except for deaths occurring after delivery, which are per 1000 live births registered.
(c) Includes those not known if before or after delivery.

Source: A.B.S.

Life expectancy, birth and death rates

TABLE 6 AGE SPECIFIC DEATH RATES (a): SEX—1921-25 TO 1974 (b)

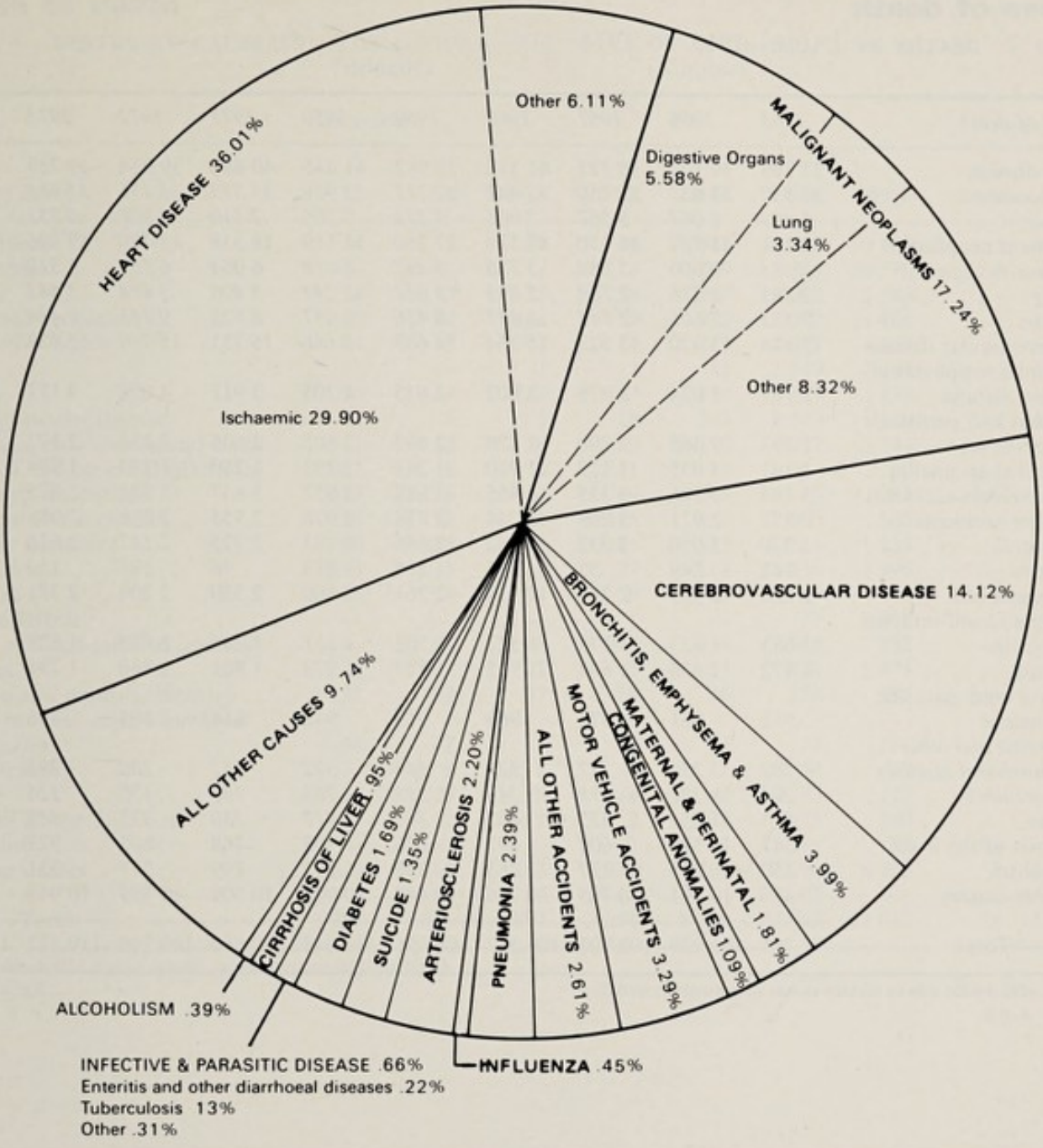
Period	Age group (years)																		
	(c)	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
MALES																			
Average annual rates—																			
1921-25	64.2	5.7	1.8	1.5	2.2	3.0	3.4	3.9	5.2	6.8	9.5	12.9	18.2	28.1	41.5	63.5	101.1	160.0	305.2
1926-30	57.7	5.2	1.6	1.3	2.1	2.8	3.2	3.7	4.6	6.2	8.9	12.7	17.8	26.5	40.7	61.5	101.2	152.0	335.8
1931-35	46.0	4.0	1.6	1.3	1.8	2.3	2.5	3.0	4.0	5.4	7.8	11.6	17.6	26.3	40.4	61.9	99.3	156.6	258.8
1936-40	43.2	3.6	1.5	1.2	(d)	(d)	(d)	(d)	(d)	(d)	(d)	11.8	17.8	27.4	41.3	63.0	100.0	158.2	277.4
1941-45	38.8	3.2	1.3	1.1	(d)	(d)	(d)	(d)	(d)	(d)	(d)	11.3	17.4	27.8	42.9	64.6	101.2	155.2	289.8
1946-50	30.1	1.9	0.9	0.8	1.4	1.8	1.7	2.0	2.6	4.1	6.8	11.1	17.6	27.4	42.4	64.0	99.3	149.7	255.3
1951-55	26.0	1.7	0.7	0.7	1.6	1.9	1.7	1.8	2.5	3.7	6.2	10.8	17.4	27.4	42.2	64.7	99.7	147.2	254.1
1956-60	23.3	1.3	0.6	0.5	1.4	1.8	1.5	1.8	2.3	3.5	5.9	10.0	16.9	26.6	42.0	63.5	97.5	145.0	251.2
1961-65	21.7	1.1	0.5	0.5	1.2	1.7	1.5	1.7	2.4	3.7	6.2	10.3	16.8	27.4	42.2	64.7	97.2	145.0	243.7
1966-70	20.4	1.0	0.5	0.5	1.4	1.8	1.5	1.6	2.4	3.8	6.2	10.4	17.2	27.8	44.3	67.0	102.7	149.2	245.9
Annual rates—																			
1968	19.8	1.0	0.5	0.5	1.5	1.8	1.4	1.6	2.4	3.7	6.1	10.6	17.4	28.7	44.2	68.2	104.4	157.4	266.1
1969	20.1	1.0	0.5	0.5	1.3	1.7	1.5	1.6	2.3	3.7	6.4	10.3	17.1	27.3	43.7	65.2	102.0	139.9	239.8
1970	20.6	1.1	0.5	0.4	1.5	1.9	1.4	1.6	2.4	3.6	6.2	10.6	17.4	27.9	45.5	67.7	107.1	153.3	244.5
1971	19.0	0.9	0.5	0.5	1.6	1.9	1.5	1.6	2.3	3.4	6.1	10.0	16.8	26.4	42.0	64.8	100.6	148.0	240.5
1972	18.9	1.0	0.4	0.4	1.5	1.7	1.3	1.4	2.2	3.5	6.1	9.7	16.4	27.1	41.1	64.9	100.3	147.1	238.6
1973	18.6r	1.0	0.4	0.4	1.5	1.8	1.3	1.5	2.1	3.6	6.2	9.7	16.0	26.4	41.6	64.2	100.1	149.9	233.0r
1974	18.4	0.9	0.4	0.4	1.6	1.8	1.4	1.5	2.2	3.4	6.2	10.1	16.7	26.9	41.6	64.9	102.7	156.6	261.7
FEMALES																			
Average annual rates—																			
1921-25	51.2	4.9	1.5	1.2	1.8	2.8	3.4	3.9	4.8	5.3	6.8	9.2	12.7	19.3	30.3	49.0	83.4	138.6	264.7
1926-30	46.0	4.8	1.3	1.0	1.6	2.7	3.3	3.5	4.3	5.0	6.6	8.8	12.3	18.8	30.0	47.8	81.8	126.7	285.8
1931-35	36.3	3.5	1.2	0.9	1.4	2.1	2.7	3.0	3.8	4.4	6.0	8.5	11.6	17.9	29.8	47.1	77.4	127.6	234.6
1936-40	34.2	3.2	1.1	0.8	1.2	1.9	2.4	2.7	3.3	4.1	5.7	8.0	11.3	17.9	28.9	46.5	79.7	124.9	244.8
1941-45	30.9	2.6	1.0	0.7	1.0	1.4	1.9	2.2	2.9	3.7	5.4	7.8	11.1	17.6	29.0	47.9	80.2	125.7	243.5
1946-50	23.7	1.6	0.6	0.5	0.7	1.0	1.3	1.6	2.2	3.2	4.9	7.3	10.3	16.2	26.0	44.6	74.7	120.8	221.8
1951-55	20.6	1.4	0.5	0.4	0.6	0.7	0.9	1.2	1.8	2.7	4.4	6.7	9.5	15.1	24.6	41.3	71.6	118.5	220.2
1956-60	18.7	1.1	0.4	0.4	0.5	0.6	0.7	1.0	1.6	2.4	3.9	5.7	8.7	13.8	23.0	38.8	63.9	113.5	215.6
1961-65	17.0	0.9	0.4	0.3	0.5	0.6	0.7	1.0	1.5	2.3	3.7	5.6	8.3	13.6	21.7	37.4	63.3	107.5	205.1
1966-70	15.7	0.8	0.3	0.3	0.6	0.6	0.7	0.9	1.5	2.3	3.7	5.9	8.7	13.6	22.1	37.3	63.6	105.9	201.0
Annual rates—																			
1968	15.6	0.9	0.4	0.3	0.6	0.6	0.6	1.0	1.5	2.4	3.7	5.7	8.7	13.8	22.3	37.1	65.1	108.3	217.8
1969	15.6	0.9	0.4	0.3	0.6	0.5	0.7	0.8	1.4	2.2	3.5	5.9	8.4	13.2	22.0	35.6	62.7	99.3	191.7
1970	15.0	0.8	0.3	0.3	0.6	0.6	0.7	1.0	1.7	2.3	3.6	5.8	8.8	14.0	22.4	38.8	64.8	108.0	198.6
1971	15.5	0.8	0.3	0.2	0.7	0.7	0.7	0.9	1.4	2.3	3.8	5.5	8.5	13.0	20.5	36.6	62.6	103.7	197.2
1972	14.4	0.8	0.3	0.3	0.5	0.6	0.6	0.9	1.3	2.2	3.6	5.5	8.4	12.7	20.3	34.6	59.6	102.3	188.8
1973	14.3r	0.7	0.3	0.3	0.6	0.5	0.6	0.8	1.3	2.1	3.6	5.2	8.2	12.5	19.6	34.5	58.7	102.6	195.4r
1974	13.7	0.7	0.3	0.3	0.5	0.5	0.6	0.8	1.3	2.1	3.6	5.6	8.4	13.0	20.7	34.2	59.7	105.2	205.8

(a) The age specific death rate is the number of deaths of a specified age per 1000 of the population of that age.
(b) Excludes particulars of full-blood Aborigines prior to 1966.
(c) Infant deaths per 1000 live births registered.
(d) Rates are not available as population estimates for males in these age groups exclusive of defence personnel were not compiled for the period September 1939 to June 1947.

Source: A.B.S.

Cause of death

GRAPH 2 DEATHS BY CAUSE AS PERCENTAGE OF ALL DEATHS—1974



Cause groups	*I.C.D. detailed list numbers(a)*	*Cause groups*	*I.C.D. detailed list numbers(a)*
Heart disease	393-398; 400-404; 410-414; 420-429	Pneumonia	480-486
Ischaemic	410-414	Influenza	470-474
Other	393-398; 400-404; 420-429	Arteriosclerosis	440
Malignant neoplasms	140-209	Suicide and self-inflicted injuries	E950-E959
Digestive organs	150-159	Diabetes	250
Lung	162	Infective and parasitic diseases	000-136
Other	140-149; 160; 161; 163-209	Enteritis and other diarrhoeal diseases	008-009
Cerebrovascular disease	430-438	Tuberculosis	010-019
Bronchitis, emphysema and asthma	490-493	Other	000-007; 020-136
Maternal and perinatal deaths(b)	630-639; 640-645; 650-678; 760-779	Cirrhosis of the liver	571
Congenital anomalies	740-759	Alcoholism	303
Motor vehicle accidents	E810-E823	All other causes	Various
All other accidents	E800-E807; E825-E949		

(a) Deaths by cause are classified according to the Eighth Revision of the International Classification of Diseases.
(b) Includes deaths due to certain causes of perinatal morbidity.

Cause of death

TABLE 7 DEATHS BY CAUSE—1965 TO 1974

(Number)

Cause of death	*1965*	*1966*	*1967*	*1968*	*1969*	*1970*	*1971*	*1972*	*1973*	*1974*
Heart disease	37 389	39 102	38 327	41 312	39 982	41 445	40 683	39 964	39 739	41 707
Ischaemic	*31 530*	*33 035*	*32 760*	*33 441*	*32 711*	*33 939*	*33 573*	*33 156*	*32 988*	*34 629*
Other	*5 859*	*6 067*	*5 567*	*7 901*	*7 271*	*7 506*	*7 110*	*6 808*	*6 751*	*7 078*
Malignant neoplasms	15 131	15 787	16 170	17 118	17 350	18 119	18 338	18 786	19 396	19 971
Digestive organs	*5 383*	*5 606*	*5 659*	*5 788*	*5 897*	*6 018*	*6 004*	*6 167*	*6 319*	*6 467*
Lung	*2 395*	*2 576*	*2 768*	*2 893*	*3 037*	*3 244*	*3 406*	*3 474*	*3 643*	*3 865*
Other	*7 353*	*7 605*	*7 743*	*8 437*	*8 416*	*8 857*	*8 928*	*9 145*	*9 434*	*9 639*
Cerebrovascular disease	13 644	13 920	13 523	15 364	14 633	15 686	15 731	15 769	15 932	16 360
Bronchitis, emphysema and asthma	2 707	3 024	2 879	3 602	3 675	4 205	3 911	4 078	4 117	4 627
Maternal and perinatal deaths (a)	2 493	2 468	2 398	2 426	2 493	2 605	2 605	2 414	2 177	2 100
Congenital anomalies	1 141	1 035	1 127	1 210	1 243	1 293	1 280	1 322	1 194	1 264
Motor vehicle accidents	3 163	3 266	3 335	3 455	3 688	3 952	3 847	3 571	3 825	3 816
All other accidents	2 957	2 971	3 269	3 044	2 738	2 978	2 955	3 068	2 988	3 021
Pneumonia	3 370	3 950	3 332	2 952	2 666	3 143	2 725	2 547	2 616	2 771
Influenza	142	249	55	323	215	813	96	191	150	518
Arteriosclerosis	2 220	2 333	2 283	2 574	2 261	2 560	2 350	2 209	2 381	2 546
Suicide and self-inflicted injuries	1 683	1 623	1 778	1 527	1 502	1 551	1 738	1 625	1 528	1 567
Diabetes	1 472	1 638	1 644	1 955	1 757	1 878	1 801	1 840	1 791	1 960
Infective and parasitic diseases	951	961	977	969	919	942	914	805	786	767
Enteritis and other diarrhoeal diseases	*282*	*259*	*327*	*321*	*344*	*322*	*352*	*280*	*295*	*258*
Tuberculosis	*294*	*321*	*275*	*243*	*213*	*203*	*182*	*150*	*126*	*146*
Other	*375*	*381*	*375*	*405*	*362*	*417*	*380*	*375*	*365*	*363*
Cirrhosis of the liver	547	598	604	697	676	703	768	805	927	1 104
Alcoholism	250	213	237	283	255	272	299	277	331	454
All other causes	10 455	10 791	10 765	10 736	10 443	10 903	10 609	10 489	10 944	1 280
Total	99 715	103 929	102 703	109 547	106 496	113 048	110 650	109 760	110 822	115 833

(a) Includes deaths due to certain causes of perinatal morbidity.

Source: A.B.S.

Cause of death

TABLE 8 DEATHS BY CAUSE AND AGE GROUP—1974

(Number)

Cause of death	*Age group*								
	0	*1-4*	*5-14*	*15-24*	*25-44*	*45-64*	*65+*	*Not stated*	*Total*
Heart disease	14	5	20	46	946	10 538	30 133	5	41 707
Ischaemic	—	—	*1*	*8*	*709*	*9 336*	*24 570*	*5*	34 629
Other	*14*	*5*	*19*	*38*	*237*	*1 202*	*5 563*	—	*7 078*
Malignant neoplasms	10	84	161	159	992	7 099	11 464	2	19 971
Digestive organs	—	*3*	*3*	*10*	*213*	*2 077*	*4 161*	—	*6 467*
Lung	—	—	*1*	*2*	*85*	*1 649*	*2 127*	*1*	*3 865*
Other	*10*	*81*	*157*	*147*	*694*	*3 373*	*5 176*	*1*	*9 639*
Cerebrovascular disease	2	1	5	18	303	2 510	13 519	2	16 360
Bronchitis, emphysema and asthma	11	12	24	29	120	1 087	3 344	—	4 627
Maternal and perinatal deaths (a)	2 062	6	3	11	18	—	—	—	2 100
Congenital anomalies	882	116	60	49	49	75	33	—	1 264
Motor vehicle accidents	16	125	231	1 416	831	690	505	2	3 816
All other accidents	90	235	171	281	533	574	1 135	2	3 021
Pneumonia	153	33	12	27	114	436	1 996	—	2 771
Influenza	10	9	4	9	27	85	373	1	518
Arteriosclerosis	—	—	—	1	—	77	2 468	—	2 546
Suicide and self-inflicted injuries	—	—	6	240	519	565	232	5	1 567
Diabetes	1	2	2	5	57	420	1 473	—	1 960
Infective and parasitic diseases	137	73	27	18	56	159	297	—	767
Enteritis and other diarrhoeal diseases	*68*	*47*	*7*	*3*	*3*	*25*	*105*	—	*258*
Tuberculosis	—	*1*	*1*	*1*	*11*	*52*	*80*	—	*146*
Other	*69*	*25*	*19*	*14*	*42*	*82*	*112*	—	*363*
Cirrhosis of the liver	—	2	3	2	132	675	290	—	1 104
Alcoholism	—	—	—	2	94	275	83	—	454
All other causes	570	162	163	278	769	2 596	6 735	7	11 280
Total	3 958	865	892	2 591	5 560	27 861	74 080	26	115 833

(a) Includes deaths due to certain causes of perinatal morbidity.

Source: A.B.S.

Cause of death

TABLE 9 AGE SPECIFIC DEATH RATE (a)—1974

Cause of death	*Age group*							
	0	*1-4*	*5-14*	*15-24*	*25-44*	*45-64*	*65+*	*Total*
Heart disease	0.06	0.5	0.8	2.0	27.1	395.6	2 669.4	312.7
Ischaemic	—	—	—	*0.3*	*20.3*	*350.5*	*2 176.6*	*259.6*
Other	*0.06*	*0.5*	*0.8*	*1.6*	*6.8*	*45.1*	*492.8*	*53.1*
Malignant neoplasms	0.04	8.1	6.5	6.9	28.4	266.5	1 015.6	149.7
Digestive organs	—	*0.3*	*0.1*	*0.4*	*6.1*	*78.0*	*368.6*	*48.5*
Lung	—	—	—	*0.1*	*2.4*	*61.9*	*188.4*	*29.0*
Other	*0.04*	*7.8*	*6.4*	*6.3*	*19.9*	*126.6*	*458.5*	*72.3*
Cerebrovascular disease	0.01	0.1	0.2	0.8	8.7	94.2	1 197.6	122.7
Bronchitis, emphysema and asthma	0.04	1.2	1.0	1.3	3.4	40.8	296.2	34.7
Maternal and perinatal deaths (b)	8.41	0.6	0.1	0.5	0.5	—	—	15.7
Congenital anomalies	3.60	11.2	2.4	2.1	1.4	2.8	2.9	9.5
Motor vehicle accidents	0.07	12.1	9.4	61.0	23.8	25.9	44.7	28.6
All other accidents	0.37	22.8	6.9	12.1	15.3	21.5	100.5	22.6
Pneumonia	0.62	3.2	0.5	1.2	3.3	16.4	176.8	20.8
Influenza	0.04	0.9	0.2	0.4	0.8	3.2	33.0	3.9
Arteriosclerosis	—	—	—	—	—	2.9	218.6	19.1
Suicide and self-inflicted injuries	—	—	0.2	10.3	14.9	21.2	20.6	11.7
Diabetes	—	0.2	0.1	0.2	1.6	15.8	130.5	14.7
Infective and parasitic diseases	0.56	7.1	1.1	0.8	1.6	6.0	26.3	5.8
Enteritis and other diarrhoeal diseases	*0.28*	*4.6*	*0.3*	*0.1*	*0.1*	*1.0*	*9.3*	*1.9*
Tuberculosis	—	*0.1*	—	—	*0.3*	*2.0*	*7.1*	*1.1*
Other	*0.28*	*2.4*	*0.8*	*0.6*	*1.2*	*3.1*	*9.9*	*2.7*
Cirrhosis of the liver	—	0.2	0.1	0.1	3.8	25.3	25.7	8.3
Alcoholism	—	—	—	0.1	2.7	10.3	7.4	3.4
All other causes	2.32	15.7	6.6	12.0	22.0	97.5	596.6	84.6
Total	16.14	83.8	36.2	111.7	159.4	1 046.0	6 562.7	868.4

(a) Number of deaths registered per 100 000 of population at risk (i.e. in each age group) except for children under one year of age which are expressed as a rate per 1000 live births registered.
(b) Includes deaths due to certain causes of perinatal morbidity.

Source: A.B.S.

Cause of death

TABLE 10 DEATHS FROM NEOPLASMS—1970 TO 1974

Cause of death	*Number*					*Deaths per 100 000 mean population*				
	1970	*1971*	*1972*	*1973*	*1974*	*1970*	*1971*	*1972*	*1973*	*1974*
Malignant neoplasm of buccal cavity and pharynx	362	338	363	390	396	2.9	2.6	2.8	3.0	3.0
Malignant neoplasm of digestive organs and peritoneum	6 018	6 004	6 167	6 319	6 467	48.0	47.0	47.5	48.0	48.3
Malignant neoplasm of respiratory system (a)	3 458	3 622	3 701	3 863	4 141	27.6	28.3	28.5	29.3	31.0
Malignant neoplasm of bone, connective tissue, skin and breast	2 191	2 300	2 255	2 343	2 446	17.5	18.0	17.4	17.8	18.3
Malignant neoplasm of genito-urinary organs	3 026	2 990	3 046	3 188	3 163	24.2	23.4	23.4	24.2	23.6
Malignant neoplasm of other and unspecified sites	1 368	1 386	1 513	1 476	1 489	10.9	10.8	11.6	11.2	11.1
Neoplasm of lymphatic and haematopoietic tissue	1 696	1 698	1 741	1 817	1 869	13.5	13.3	13.4	13.8	14.0
Benign neoplasm	124	113	130	136	119	1.0	0.9	1.0	1.0	0.9
Neoplasm of unspecified nature	72	76	60	71	68	0.6	0.6	0.5	0.5	0.5
Total	18 315	18 527	18 976	19 603	20 158	146.2	144.9	146.1	148.9	150.7

(a) For lung cancer, which constitutes a majority of these deaths, see Table 13.

Source: A.B.S.

Cause of death

TABLE 11 DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM—1970 TO 1974

Cause of death	*Number*					*Deaths per 100 000 mean population*				
	1970	*1971*	*1972*	*1973*	*1974*	*1970*	*1971*	*1972*	*1973*	*1974*
Active rheumatic fever	13	12	10	14	17	0.1	0.1	0.1	0.1	0.1
Chronic rheumatic heart disease	965	931	870	772	877	7.7	7.3	6.7	5.9	6.6
Hypertensive disease	1 743	1 629	1 497	1 464	1 596	13.9	12.7	11.5	11.1	11.9
Ischaemic heart disease	33 939	33 573	33 156	32 988	34 629	270.9	262.7	255.2	250.5	258.9
Other forms of heart disease	4 798	4 550	4 441	4 515	4 605	38.3	35.6	34.2	34.3	34.4
Cerebrovascular disease	15 686	15 731	15 769	15 932	16 360	125.2	123.1	121.4	121.0	122.3
Diseases of arteries, arterioles and capillaries	3 914	3 842	3 702	3 982	4 127	31.2	30.1	28.5	30.2	30.9
Diseases of veins and lymphatics, and other diseases of the circulatory system	318	344	289	344	322	2.5	2.7	2.2	2.6	2.4
Total	61 376	60 612	59 734	60 011	62 533	489.9	474.2	459.8	455.7	467.4

Source: A.B.S.

Cause of death

TABLE 12 DEATHS FROM ISCHAEMIC HEART DISEASE—AGE GROUPS—1970 TO 1974

Age group	*Number*					*Deaths per 100 000 population in each age group*				
	1970	*1971*	*1972*	*1973*	*1974*	*1970*	*1971*	*1972*	*1973*	*1974*
0-9	1	—	—	—	—	—	—	—	—	—
10-19	3	5	2	2	2	0.1	0.2	0.1	0.1	0.1
20-29	21	25	30	18	23	1.1	1.2	1.4	0.8	1.0
30-39	232	238	244	230	263	15.4	15.5	15.6	14.4	15.9
40-44	471	487	493	482	430	59.8	61.8	63.4	63.2	57.4
45-49	1 023	1 087	1 043	1 004	1 004	132.7	140.2	134.3	128.7	127.6
50-54	1 639	1 658	1 644	1 739	1 792	257.8	250.9	240.6	245.1	244.2
55-59	2 808	2 769	2 719	2 569	2 573	468.1	458.9	448.0	425.1	429.6
60-64	3 815	3 816	3 850	3 800	3 967	782.6	762.7	751.6	721.9	729.1
65-69	4 830	4 597	4 503	4 540	4 706	1 270.1	1 182.8	1 136.1	1 112.5	1 117.3
70-74	5 297	5 200	5 119	5 093	5 313	1 870.1	1 805.2	1 730.1	1 681.0	1 706.2
75 and over	13 799	13 687	13 509	13 506	14 551	3 629.4	3 562.6	3 479.7	3 445.5	3 672.3
Not stated	—	4	—	5	5	—	—	—	—	—
Total	33 939	33 573	33 156	32 988	34 629	271.4	263.2	255.9	251.2	259.6

Source: A.B.S.

Cause of death

TABLE 13 DEATHS FROM LUNG CANCER (a)—AGE GROUPS—1970 TO 1974

	Number					*Deaths per 100 000 population in each age group*				
	1970	*1971*	*1972*	*1973*	*1974*	*1970*	*1971*	*1972*	*1973*	*1974*
0-9	—	—	2	—	—	—	—	0.08	—	—
10-19	1	1	—	—	3	0.04	0.04	—	—	0.12
20-29	1	2	5	1	2	0.05	0.10	0.24	0.05	0.09
30-39	23	30	30	27	23	1.52	1.96	1.92	1.69	1.39
40-44	57	67	46	58	60	7.24	8.50	5.91	7.60	8.02
45-49	146	159	165	186	187	18.93	20.50	21.24	23.84	23.77
50-54	236	285	291	295	311	37.13	43.13	42.58	41.58	42.37
55-59	451	431	412	404	480	75.19	71.42	67.88	66.86	80.14
60-64	597	628	611	653	671	122.47	125.51	119.28	124.05	123.33
65-69	627	660	671	703	711	164.87	169.81	169.30	172.26	168.81
70-74	509	548	595	611	671	179.70	190.24	201.10	201.66	215.48
75 and over	596	595	646	704	745	156.76	154.87	166.40	179.60	188.02
Not stated	—	—	—	1	1	—	—	—	—	—
Total	3 244	3 406	3 474	3 643	3 865	25.94	26.70	26.81	27.74	28.98

(a) Lung cancer is defined as a malignant neoplasm of the trachea, bronchus or lung in the International Classification of Diseases.
Source: A.B.S.

Cause of death

TABLE 14 DEATHS FROM CEREBROVASCULAR DISEASE—AGE GROUPS—1970 TO 1974

Age group	*Number*					*Deaths per 100 000 population in each age group*				
	1970	*1971*	*1972*	*1973*	*1974*	*1970*	*1971*	*1972*	*1973*	*1974*
0-9	12	14	11	12	6	0.5	0.6	0.4	0.5	0.2
10-19	22	17	24	17	7	1.0	0.7	1.0	0.7	0.3
20-29	38	45	28	48	38	1.9	2.2	1.3	2.2	1.7
30-39	158	115	139	119	143	10.5	7.5	8.9	7.5	8.7
40-44	168	182	174	163	135	21.3	23.1	22.4	21.4	18.0
45-49	316	300	292	342	313	41.0	38.7	37.6	43.8	39.8
50-54	432	432	448	429	452	68.0	65.4	65.6	60.5	61.6
55-59	717	670	667	660	650	119.5	111.0	109.9	109.2	108.5
60-64	1 037	1 037	1 040	1 019	1 095	212.7	207.3	203.0	193.6	201.3
65-69	1 655	1 443	1 519	1 486	1 579	435.2	371.3	383.3	364.1	374.9
70-74	2 263	2 253	2 230	2 270	2 213	798.9	782.2	753.7	749.2	710.7
75 and over	8 867	9 221	9 197	9 365	9 727	2 332.2	2 400.2	2 369.0	2 389.1	2 454.9
Not stated	1	2	—	2	2	—	—	—	—	—
Total	15 686	15 731	15 769	15 932	16 360	125.4	123.3	121.7	121.3	122.7

Source: A.B.S.

Cause of death

TABLE 15 DEATHS DUE TO ACCIDENTS, POISONINGS AND VIOLENCE—1970 TO 1974

Cause of death	*Number*					*Deaths per 100 000 mean population*				
	1970	*1971*	*1972*	*1973*	*1974*	*1970*	*1971*	*1972*	*1973*	*1974*
Accidents—										
Motor vehicle accidents	3 952	3 847	3 571	3 825	3 816	31.5	30.1	27.5	29.0	28.5
Railway accidents	103	83	81	75	87	0.8	0.6	0.6	0.6	0.7
Water transport accidents	93	101	111	108	103	0.7	0.8	0.9	0.8	0.8
Air and space transport accidents	48	41	54	28	39	0.4	0.3	0.4	0.2	0.3
Accidental falls	1 161	1 171	1 264	1 153	1 197	9.3	9.2	9.7	8.8	8.9
Accidents caused by fire and flames	220	168	208	174	197	1.8	1.3	1.6	1.3	1.5
Accidental drowning and submersion	377	422	409	437	450	3.0	3.3	3.1	3.3	3.4
Accidental poisonings	129	119	128	113	132	1.0	0.9	1.0	0.9	1.0
Other accidents	847	850	813	892	816	6.8	6.6	6.3	6.8	6.1
Total	6 930	6 802	6 639	6 805	6 837	55.3	53.2	51.1	51.7	51.1
Undetermined poisonings	130	78	81	76	96	1.0	0.6	0.6	0.6	0.7
Suicide and self-inflicted injuries	1 551	1 738	1 625	1 528	1 567	12.4	13.6	12.5	11.6	11.7
Homicide and injuries purposely inflicted by other persons	190	228	219	253	242	1.5	1.8	1.7	1.9	1.8
Other external causes	75	98	105	114	146	0.6	0.8	0.8	0.9	1.1
Total	8 876	8 944	8 669	8 776	8 888	70.8	70.0	66.7	66.6	66.4

Source: A.B.S.

Cause of death

TABLE 16 DEATHS FOR SELECTED CAUSES AND COUNTRIES—RATE PER 100 000 MEAN POPULATION

Country	*Ischaemic heart disease*		*Cerebrovascular disease*		*Malignant neoplasms*		*Tuberculosis of the respiratory system*		*Cirrhosis of the liver*	
	1971	*1972*	*1971*	*1972*	*1971*	*1972*	*1971*	*1972*	*1971*	*1972*
Australia	263.2	255.9	123.3	121.7	143.5	145.0	0.9	0.8	6.0	6.2
Austria	237.5	240.8	196.9	197.4	260.2	255.6	10.8	9.4	30.9	30.4
Canada	227.1	229.4	74.5	75.9	143.8	147.9	1.4	1.3	9.0	10.2
Denmark	303.3	317.1	103.6	102.5	231.7	n.a.	1.2	1.2	9.4	10.0
England and Wales	293.0	309.3	163.6	167.1	239.5	242.6	1.9	2.0	3.2	3.4
France	85.6	87.5	149.4	145.6	211.5	213.8	6.4	5.9	34.8	34.2
Germany, F.R.	184.3	190.8	176.8	171.9	236.7	231.4	5.9	5.5	24.8	25.2
Greece	71.9	78.0	125.0	132.1	134.0	n.a.	8.0	6.7	15.9	16.2
Hong Kong	27.8	28.7	48.4	46.4	104.5	107.7	29.3	30.2	9.0	7.6
Hungary	236.2	236.4	170.1	158.3	224.6	224.9	14.9	13.0	13.8	13.0
Ireland	257.0	283.5	152.9	156.0	191.2	n.a.	5.5	5.1	2.5	3.7
Italy	137.6	136.6	134.1	129.7	184.0	184.7	6.1	5.5	30.1	31.8
Japan	36.2	36.1	168.5	164.2	117.7	120.4	12.3	11.2	12.4	12.7
Mauritius	48.9	41.8	63.8	66.0	34.7	41.9	5.2	6.1	4.7	5.8
Mexico	18.8	19.5	24.8	24.4	36.2	36.7	15.7	15.2	21.1	21.4
Netherlands	182.1	190.2	92.0	97.9	194.7	193.1	0.9	0.8	4.2	4.2
New Zealand	242.2	239.8	115.6	116.4	157.9	n.a.	0.9	1.3	3.6	4.2
Northern Ireland	293.8	311.2	162.5	163.2	186.6	175.2	1.7	2.2	3.1	3.6
Norway	266.8	264.3	152.5	156.1	187.6	n.a.	0.7	0.7	4.0	4.6
Poland	62.6	65.8	42.0	43.4	143.6	144.1	23.4	17.6	9.0	9.4
Romania	76.0	79.4	129.9	129.8	122.9	123.7	15.8	13.1	20.3	19.9
Scotland	338.4	364.7	191.6	199.3	244.8	247.9	2.9	3.0	4.2	5.0
Singapore	44.3	43.8	52.3	50.3	80.0	82.6	19.9	21.9	6.4	n.a.
Spain	59.4	62.9	125.4	130.6	139.4	n.a.	9.4	7.8	22.7	22.1
Sweden	365.3	364.1	111.6	108.9	215.6	n.a.	3.0	2.7	9.3	10.2
Thailand	0.1	0.3	6.9	7.2	12.4	n.a.	19.4	19.8	4.2	4.5
United States	326.1	n.a.	101.1	101.0	163.2	166.8	1.7	n.a.	15.4	n.a.
Yugoslavia	61.3	63.1	75.9	80.3	97.8	n.a.	14.9	15.1	12.5	13.9

Source: U.N. and W.H.O.

ALCOHOL AND TOBACCO

Alcohol

TABLE 17 CONSUMPTION OF ALCOHOLIC BEVERAGES—1965-66 TO 1974-75

Year ended 30 June	Total consumption				Consumption per head of population			
	Beer ('000 litres)	Wine (a) ('000 litres)	Spirits ('000 litres alcohol)	Estimated total alcholol (b) ('000 litres)	Beer (litres)	Wine (a) (litres)	Spirits (litres alcohol)	Estimated total alcohol (b) (litres)
1966 .	1 266 218	69 732	9 570	80 808	110.0	6.0	0.8	7.0
1967 .	1 323 499	79 793	9 692	85 189	113.2	6.8	0.8	7.3
1968 .	1 391 972	90 117	11 073	91 405	116.8	7.6	1.0	7.7
1969 .	1 462 732	100 182	11 169	96 407	120.0	8.3	1.0	7.9
1970 .	1 532 328	110 856	12 657	102 837	123.7	8.9	1.0	8.3
1971 .	1 601 024	110 489	13 124	106 547	126.7	8.7	1.0	8.4
1972 .	1 640 878	115 578	14 253	110 352	127.5	9.0	1.0	8.6
1973 .	1 719 782	130 015	16 384	118 436	131.5	9.9	1.3	9.1
1974 .	1 874 274	148 075	16 734	128 910	141.3	11.2	1.3	9.7
1975 .	1 921 798 p	168 017	16 284 p	133 732 p	142.7 p	12.5	1.2 p	9.9 p

(a) Part of the apparent increase in consumption could be due to increased stocks of wine held for maturing.
(b) The estimated total alcoholic content of all alcoholic beverages consumed has been calculated by applying factors of 4.8% alcoholic content for beer and 15% for wine. Consumption of spirits, as shown in this table, is measured in litres of alcohol.

Source: A.B.S.

Alcohol

TABLE 18 ESTIMATED SUPPLY AND UTILISATION OF ALCOHOL—1972-73 TO 1973-74 p

Supply and utilisation	*Units*	*1972-73*	*1973-74 p*
		(BEER)	
Supply:			
Commercial production	*'000 litres*	1 744 545 (a)	1 900 932 (a)
Imports	*'000 litres*	1 129	1 432
Net change in stocks	*'000 litres*	(b)	(b)
Total	*'000 litres*	*1 745 674*	*1 902 364*
Utilisation:			
Exports (including ships' stores)	*'000 litres*	16 954	19 589
Miscellaneous uses (c)	*'000 litres*	8 938	8 501
Apparent consumption—			
Total (d)	*'000 litres*	1 719 782	1 874 274
Per head per year	*litres*	131.5	141.3
Per head of population 18 years of age and over	*litres*	197.8	211.3
		(WINE)	
Supply:			
Commercial production	*'000 litres*	170 229	183 956
Imports	*'000 litres*	3 005	4 310
Net change in stocks	*'000 litres*	(+) 36 963 (e)	(+) 31 577 (e)
Total	*'000 litres*	*136 271*	*156 689*
Utilisation:			
Exports (including ships' stores)	*'000 litres*	6 256	8 614
Miscellaneous uses (f)	*'000 litres*	..	..
Apparent consumption—			
Total	*'000 litres*	130 015	148 075
Per head per year	*litres*	9.9	11.2
Per head of population 18 years of age and over	*litres*	15.0	16.7
		(SPIRITS)	
Apparent consumption—			
Total	*'000 litres alcohol*	16 384	16 734
Per head per year	*litres alcohol*	1.3	1.3
Per head of population 18 years of age and over	*litres alcohol*	1.9	1.9

(a) Excludes waste.
(b) Not available—see footnote (c).
(c) Balance figure; includes waste beer and allowance for net change in brewery stocks.
(d) Quantity of beer removed (duty paid and duty free) for consumption in Australia, and imports cleared.
(e) Movements in stocks held by winemakers, importers and wholesalers.
(f) Balance figure, includes waste and allowance for net change in unrecorded stocks.

Source: A.B.S.

Alcohol

TABLE 19 ESTIMATED NUMBER OF DEATHS (a) WHERE ALCOHOL A MAJOR FACTOR—1965 TO 1974
(Number)

Cause of death	*Estimated percentage attributable to alcohol*	*1965*	*1966*	*1967*	*1968*	*1969*	*1970*	*1971*	*1972*	*1973*	*1974*
Tuberculosis	*30%*	88	96	83	73	64	61	55	45	38	44
Beriberi	*100%*	7	4	6	5	6	14	2	3	5	10
Alcoholic psychosis	*100%*	27	18	33	28	29	37	28	17	34	34
Alcoholism	*100%*	250	213	237	283	255	272	299	277	331	454
Cardiomyopathy	*15%*	n.a.	n.a.	n.a.	9	11	15	16	19	22	26
Cirrhosis of the liver	*50%*	274	299	302	349	338	352	384	403	464	552
Diseases of the pancreas	*15%*	23	27	26	24	20	23	18	21	24	24
Motor vehicle traffic accidents	*50%*	1 542	1 602	1 636	1 689	1 799	1 923	1 870	1 725	1 847	1 848
Accidental alcohol poisoning	*100%*	—	7	2	1	3	2	1	2	8	2
Burns	*10%*	23	21	29	23	19	22	17	21	17	20
Accidental drowning	*20%*	76	74	80	76	65	75	84	82	87	90
Suicide	*20%*	337	325	356	305	300	310	348	325	306	313
Homicide	*33⅓%*	54	51	54	63	51	63	76	73	84	81
Total		2 701	2 737	2 844	2 928	2 960	3 169	3 198	3 013	3 267	3 498

(a) The number of deaths resulting from alcohol related causes has been calculated by applying the estimated percentage attributable to alcohol to the total number of deaths registered for the causes listed.

Alcohol

The statistics contained in this table are influenced by the following factors which affect comparability between States—differences in laws, differences in compilation (e.g. in respect of persons convicted for more than one offence), the prevailing attitudes to laws such as those connected with liquor etc., and the distribution and strength of the police forces. Details of differences between the Lower (Magistrates') Courts in the relevant States are listed in the Official Year Book of the Commonwealth of Australia No. 55, 1969 pages 567-71.

TABLE 20 DRUNKENNESS CASES AT MAGISTRATES' COURTS IN WHICH CONVICTIONS WERE MADE—STATES AND TERRITORIES—1972

State or Territory	*Drunkenness cases in which convictions were made*	*Convictions for drunkenness as a percentage of all convictions*	*Drunkenness cases in which convictions were made, per 1000 mean population*
New South Wales	n.a.	n.a.	n.a.
Victoria	28 962	9.0	8.1
Queensland (a) (b)	30 529	31.3	16.5
South Australia (a)	10 181	8.3	8.6
Western Australia	16 379	17.1	15.5
Tasmania	813	2.3	2.1
Northern Territory	8 418	41.9	91.9
Australian Capital Territory	712	5.1	4.5

(a) Year ended 30 June 1972.
(b) A person convicted on several counts at the one hearing is included only once.
Source: A.B.S.

Tobacco

TABLE 21 CONSUMPTION OF TOBACCO PRODUCTS—1970-71 TO 1974-75

Year ended 30 June	*Total consumption ('000 kg)*				*Consumption per head of population (kg)*			
	Tobacco (a)	*Cigars*	*Cigarettes*	*Total*	*Tobacco (a)*	*Cigars*	*Cigarettes*	*Total*
1971	4 287.6	224.4	25 778.5	30 290.5	0.34	0.02	2.04	2.40
1972	4 388.8	256.8	26 429.9	31 075.5	0.34	0.02	2.05	2.41
1973	3 512.6	293.9	27 557.0	31 363.5	0.27	0.02	2.11	2.40
1974	3 886.1	340.5	28 349.0	32 575.7	0.29	0.03	2.14	2.46
1975	3 740.6	329.8	29 042.2	33 112.6	0.28	0.02	2.16	2.46

(a) Includes all loose tobacco. Excludes snuff.

Source: A.B.S.

Alcohol and tobacco

TABLE 22 ALCOHOL AND TOBACCO—PERSONAL CONSUMPTION EXPENDITURE AND PERCENTAGE OF ALCOHOL AND TOBACCO EXPENDITURE TO TOTAL CONSUMPTION EXPENDITURE—1970-71 TO 1974-75

	Total expenditure ($ million)					*Average expenditure per head of population ($)*				
	1970-71	*1971-72*	*1972-73*	*1973-74*	*1974-75*	*1970-71*	*1971-72*	*1972-73*	*1973-74*	*1974-75*
Alcoholic drinks	1 306	1 416	1 561	1 781	2 039	103.18	109.80	119.31	134.23	151.39
Cigarettes & tobacco	559	608	710	789	923	44.16	47.15	54.27	59.46	68.53
Food	3 819	4 144	4 569	5 351	6 053	301.72	321.33	349.23	403.28	449.41
Rent	2 680	3 053	3 469	4 038	4 886	211.73	236.73	265.15	304.33	362.76
Household durables	1 451	1 638	1 877	2 397	2 860	114.64	127.01	143.47	180.65	212.34
Travel & communication	3 164	3 467	3 778	4 385	5 337	249.97	268.84	288.77	330.48	396.25
Clothing	1 814	1 987	2 224	2 666	3 010	143.31	154.08	169.99	200.93	223.48
Other	5 198	5 876	6 648	7 665	9 433	410.67	455.64	508.14	577.68	700.36
Total	19 991	22 189	24 836	29 072	34 541	1 579.38	1 720.57	1 898.33	2 191.04	2 564.52
Alcohol as % of total	6.53	6.38	6.29	6.13	5.90					
Tobacco as % of total	2.80	2.74	2.86	2.71	2.67					

Source: A.B.S.

QUARANTINE

General

TABLE 23 VESSELS BOARDED AND CLEARED—STATES AND TERRITORIES—1975-76

State or Territory	Surface			Air		
	Vessels	*Crew*	*Passengers*	*Vessels*	*Crew*	*Passengers*
New South Wales	1 303	57 232	28 531	9 076	73 043	815 866
Victoria	522	22 381	11 640	617	8 589	96 528
Queensland	1 074	39 433	6 231	2 993	5 782	46 534
South Australia	3 473	10 458	1 174	36	66	765
Western Australia	2 355	95 391	27 307	1 222	15 282	184 640
Tasmania	686	13 412	663	1	—	—
Northern Territory	302	8 582	3 458	855	3 813	24 824
Australian Capital Territory	(a)	(a)	(a)	30	254	520
Australia	9 715	246 889	79 004	14 830	106 829	1 169 677

(a) Not applicable.

General

TABLE 24 PERSONS QUARANTINED AND PERSONS VACCINATED AGAINST SMALLPOX ON ARRIVAL IN AUSTRALIA—1971-72 TO 1975-76

(Number)

	1971-72	*1972-73*	*1973-74*	*1974-75*	*1975-76*
Persons quarantined	182	335	322	180	148 (a)
Persons vaccinated against smallpox on arrival in Australia	8 174	4 659	6 018	5 837	1 348

(a) Includes 85 Timor refugees.

Animal

TABLE 25 ANIMALS IMPORTED—1971-72 TO 1975-76

(Number)

	1971-72	*1972-73*	*1973-74*	*1974-75*	*1975-76*
Animals for permanent quarantine in registered zoological gardens and circuses	252	299	131	42	115
Laboratory animals for scientific institutions	4 718	8 185	5 440	3 996	5 461
Bees	—	—	—	—	119
Cats and dogs—from New Zealand	694	861	1 331	1 211	1 440
from United Kingdom	752	852	1 026	855	1 337
from Countries other than above	—	49	107	126	151
Cattle—from New Zealand	2 509	2 959	2 458	1 208	771
Donkeys	—	—	—	—	20
Fish	—	—	—	—	15 709
Goats—from New Zealand	—	—	3	7	—
Horses—from New Zealand	924	1 124	1 339	1 430	1 729
from United Kingdom	170	58	504	749	425
from Republic of Ireland	—	—	—	—	26
Monkeys	—	630	548	356	211
Pigs—from New Zealand	23	16	18	10	7
Sheep—from New Zealand	—	—	159	238	191

Animal

TABLE 26 IMPORTATION OF CATTLE SEMEN—DOSES—1975-76

(Number)

Breed	*Imports from*				
	Ireland	*Canada*	*New Zealand*	*United Kingdom*	*Total*
Aberdeen Angus	—	—	1 760	3 977	5 737
Ayrshire	—	2 500	1 250	10 898	14 648
Blonde d'Aquitaine	—	—	—	1 097	1 097
Brahman	—	1 095	—	1 850	2 945
Brown Swiss	—	4 319	—	—	4 319
Canadian Guernsey	—	—	—	2 595	2 595
Canadian Holstein	—	10 644	—	9 454	20 098
Charolais	1 296	10 818	21 808	12 461	46 383
Chianina	—	13 095	—	19 381	32 476
Dairy Shorthorn	—	—	—	1 359	1 359
Devon	—	—	—	140	140
Friesian (Holstein)	—	—	23 890	55 409	79 299
Galloway	—	—	—	650	650
Gelbvieh	—	—	—	773	773
Guernsey	—	—	—	8 625	8 625
Hereford	—	5 350	2 255	12 421	20 026
Highland	—	—	—	398	398
Jersey	—	—	1 905	—	1 905
Limousin	—	3 500	2 574	790	6 864
Lincoln Red	—	—	—	1 760	1 760
Luing	—	—	250	—	250
Maine Anjou	—	—	—	2 351	2 351
Marchiqiana	—	4 239	—	12 002	16 241
Meuse-Rhine-Issel	—	—	—	20	20
Mixed Dairy	—	—	17 098	—	17 098
Poll Hereford	—	—	1 228	1 298	2 526
Red Poll	—	—	—	35	35
Romagnola	—	8 698	—	15 734	24 432
Simmental	9 142	1 100	12 381	39 840	62 463
South Devon	—	—	—	300	300
Sussex	—	—	150	476	626
Total	10 438	65 358	86 549	216 094	378 439

THERAPEUTICS

Pharmaceutical benefits

TABLE 27 COST OF PHARMACEUTICAL BENEFITS—1971-72 TO 1975-76

($'000)

	1971-72	*1972-73*	*1973-74*	*1974-75*	*1975-76* (c)
Commonwealth Government Payments					
Benefit prescriptions					
General (a)	90 062	87 431	108 066	131 341	149 033
Pensioner (b)	52 005	58 139	66 803	80 587	107 317
Total	142 067	145 571	174 869	211 928	256 351
Patients' contributions on general benefit prescriptions	35 467	48 640	59 015	66 828	95 245
Total cost of benefit prescriptions	177 534	194 211	233 885	278 756	351 595
Commonwealth Government payments to public hospitals and through miscellaneous services	31 201	32 062	43 427	50 368	27 491 (d)
Total cost of pharmaceutical benefits	208 735	226 273	277 311	329 125	379 086
Total Commonwealth Government Payments	173 268	177 633	218 296	262 297	283 841

(a) Benefit prescriptions supplied to persons other than those eligible to receive pensioner pharmaceutical benefits.
(b) Benefit prescriptions supplied to persons eligible to receive pensioner benefits.
(c) Includes retrospective adjustments of $8.8 million and $20.2 million to chemists' dispensing fees for prescriptions processed in 1973-74 and 1974-75 respectively.
(d) Reduction due to introduction of Medibank hospital agreements.

Pharmaceutical benefits

TABLE 28 PAYMENTS TO PUBLIC HOSPITALS AND THROUGH MISCELLANEOUS SERVICES—STATES AND TERRITORIES—1971-72 TO 1975-76

($'000)

Payments to public hospitals	*1971-72*	*1972-73*	*1973-74*	*1974-75*	*1975-76*
New South Wales	10 920	11 600	14 387	16 050	10 415
Victoria	8 874	6 218	12 047	13 152	6 986
Queensland	4 618	5 324	6 295	7 771	2 943
South Australia	2 150	2 714	3 334	4 264	1 709
Western Australia	3 065	3 751	4 406	5 686	2 702
Tasmania	796	995	1 157	1 301	538
Northern Territory	(a)	251	349	366	—
Australian Capital Territory	(b)	255	326	463	322
Miscellaneous	778	955	1 126	1 316	1 876 (c)
Total	31 201	32 062	43 427	50 368	27 491 (d)

(a) Figures for years prior to 1973 for Northern Territory are not included in this table. Related costs were charged to Northern Territory expenditure as Medical Supplies.
(b) Figures for years prior to 1973 for Australian Capital Territory are included in New South Wales.
(c) In 1975-76 miscellaneous services expenditure consisted of:—

	$'000		$'000
Biological products and prophylactic materials	909	Bush Nursing Organisations	156
Commonwealth Medical Officers and Immigration Medical Services	84	Special Issues for Research	229
Royal Flying Doctor Service	48	Colostomy and Ileostomy Association	449

(d) See footnote (d) Table 27.

Pharmaceutical benefits

TABLE 29 PHARMACEUTICAL CHEMISTS (a) AND MEDICAL PRACTITIONERS (b) DISPENSING PHARMACEUTICAL BENEFITS PRESCRIPTIONS—STATES AND TERRITORIES—1972 TO 1976
(Number at 30 June)

State or Territory	*1972*	*1973*	*1974*	*1975*	*1976*
			PHARMACEUTICAL CHEMISTS		
New South Wales (c)	2 257	2 154	2 102	2 034	2 014
Victoria	1 617	1 587	1 573	1 532	1 496
Queensland	922	920	897	883	880
South Australia (c)	534	510	502r	490	487
Western Australia	410	408	408	396	400
Tasmania	151	148	146	146	146
Northern Territory (c)	n.a.	21	20	20	19
Australian Capital Territory (c)	n.a.	69	71	65	62
Australia	5 891	5 817	5 719 r	5 566	5 504
			MEDICAL PRACTITIONERS		
New South Wales (c)	33	29	29	26	30
Victoria	2	1	2	2	—
Queensland	5	6	6	10	8
South Australia (c)	5	6	6	4	5
Western Australia	5	6	4	4	6
Tasmania	15	15	14	11	11
Northern Territory (c)	n.a.	—	—	—	—
Australian Capital Territory (c)	n.a.	—	—	—	—
Australia	65	63	61	57	60

(a) Pharmaceutical Chemists approved under Section 90 of the *National Health Act* 1953-1973 for the purpose of supplying pharmaceutical benefits.
(b) Medical Practitioners approved under Section 92 of the *National Health Act* 1953-1973 for the purpose of supplying pharmaceutical benefits in areas in which there are no other pharmaceutical services available.
(c) Figures for years prior to 1973 for Northern Territory and Australian Capital Territory are included in those for South Australia and New South Wales, respectively.

Pharmaceutical benefits

TABLE 30 COST OF BENEFIT PRESCRIPTIONS—STATES AND TERRITORIES—1975-76
($'000)

State or Territory	*Commonwealth Government payments (a) (b)*			*Patients' contributions on general benefit prescriptions*	*Total cost of benefit prescriptions*
	Benefit prescriptions				
	General	*Pensioner*	*Total*		
New South Wales	59 171	44 667	103 838	37 276	141 114
Victoria	40 177	25 523	65 701	25 959	91 660
Queensland	20 994	16 644	37 638	13 465	51 104
South Australia	12 690	9 858	22 547	8 091	30 638
Western Australia	9 903	7 106	17 008	6 451	23 459
Tasmania	3 757	3 064	6 821	2 489	9 310
Northern Territory	299	27	326	206	532
Australian Capital Territory	2 043	428	2 471	1 307	3 778
Australia	149 033	107 317	256 351	95 245	351 595

(a) Excludes payments for pharmaceutical benefits provided by public hospitals and through miscellaneous services (see Table 28).
(b) See footnote (c) Table 27.

Pharmaceutical benefits

TABLE 31 BENEFIT PRESCRIPTION STATISTICS—STATES AND TERRITORIES—1975-76

Benefit prescriptions	*Units*	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Dissection of costs (a)—										
Cost of ingredients and containers (b)	*$'000*	74 923	46 738	25 801	15 543	11 891	4 749	271	2 029	181 943
Suppliers' remuneration (c) (d)	*$'000*	58 897	37 240	20 879	12 531	9 578	3 801	210	1 551	144 688
Total cost	*$'000*	133 819	83 977	46 680	28 074	21 469	8 550	481	3 580	326 631
Benefit prescriptions—										
General	*'000*	27 032	18 075	9 500	5 713	4 558	1 768	140	936	67 723
Pensioner	*'000*	14 372	7 659	5 122	2 993	2 163	943	7	135	33 395
Total	*'000*	41 404	25 734	14 622	8 707	6 722	2 711	147	1 071	101 117
Average cost per prescription(a)—										
General	*$*	3.36	3.35	3.32	3.34	3.28	3.25	3.26	3.38	3.34
Pensioner	*$*	2.99	3.05	2.96	3.01	3.01	2.98	3.30	3.09	3.00
Total	*$*	3.23	3.26	3.19	3.22	3.19	3.15	3.26	3.34	3.23
Benefit prescriptions per head of—										
General population (e)	*Number*	6.34	5.45	5.33	5.20	4.44	4.93	1.55	4.85	5.58
Pensioner population (f)	*Number*	25.94	20.12	22.07	20.93	19.39	19.06	1.30	21.34	22.52
Total population	*Number*	8.59	6.96	7.26	7.01	5.90	6.64	1.53	5.37	7.43
Average cost per head of (a)—										
General population (e)	*$*	21.31	18.28	17.69	17.36	14.57	15.99	5.05	16.40	18.67
Pensioner population (f)	*$*	77.55	61.40	65.28	62.96	58.27	56.85	4.29	65.86	67.61
Total population	*$*	27.78	22.73	23.18	22.61	18.86	20.93	5.01	17.96	24.00

(a) Includes patients' contributions. Excludes costs in relation to pharmaceutical benefits provided by public hospitals and through miscellaneous services (see Table 28).
(b) Includes payments to suppliers for wastage on broken quantities of ready-prepared items and discount allowed to suppliers by wholesalers and manufacturers.
(c) Includes mark-up on wholesale price and professional fees.
(d) Excludes retrospective adjustments. See footnote (c) Table 27.
(e) Calculated from population excluding persons eligible to receive pensioner pharmaceutical benefits.
(f) Calculated from population of persons eligible to receive pensioner pharmaceutical benefits.

Pharmaceutical benefits

TABLE 32 BENEFIT PRESCRIPTIONS AND COST OF MORE FREQUENTLY PRESCRIBED DRUG GROUPS (a)—1975-76

Drug groups	*Benefit prescriptions*		*Total cost of benefit prescriptions*	
	Number	*Percentage of total*	*Amount*	*Percentage of total*
	'000	*%*	*$'000*	*%*
Analgesics	10 224	*10.11*	29 610	*9.07*
Anovulants	5 979	*5.91*	16 323	*5.00*
Antacids	2 501	*2.47*	5 408	*1.66*
Anti-cholinergics	1 247	*1.23*	4 713	*1.44*
Anti-convulsants	509	*0.50*	2 795	*0.86*
Anti-depressants	3 641	*3.60*	9 640	*2.95*
Anti-diabetics	852	*0.84*	6 635	*2.03*
Anti-histamines	4 269	*4.22*	10 812	*3.31*
Blood vessels—Drugs acting on	4 011	*3.97*	21 773	*6.67*
Broad spectrum antibiotics	6 082	*6.01*	22 380	*6.85*
Bronchial spasm preparations	4 731	*4.68*	21 475	*6.57*
Corticosteroids	760	*0.75*	2 663	*0.82*
Diuretics	6 276	*6.21*	23 816	*7.29*
Expectorants and cough suppressants	1 075	*1.06*	1 632	*0.50*
Eye drops	1 736	*1.72*	4 293	*1.31*
Gastro intestinal sedatives	1 312	*1.30*	3 933	*1.20*
Genito-urinary infections—Drugs acting on	608	*0.60*	2 561	*0.78*
Heart—Drugs acting on	3 076	*3.04*	15 722	*4.81*
Iron preparations	1 183	*1.17*	2 081	*0.64*
Parkinsons disease—Drugs used for	396	*0.39*	2 366	*0.72*
Penicillins	7 183	*7.10*	24 527	*7.51*
Sedatives and hypnotics	4 183	*4.14*	7 082	*2.17*
Sera, vaccines	1 007	*1.00*	2 478	*0.76*
Sulphonamides	2 904	*2.87*	9 749	*2.98*
Tranquillisers	5 763	*5.70*	15 221	*4.66*
Water and electrolyte replacement	2 635	*2.61*	7 557	*2.31*
Other drug groups	16 973	*16.79*	49 385	*15.12*
Total	101 117	*100.00*	326 631	*100.00*

(a) See footnotes (a) and (d) Table 31.

Therapeutic goods

TABLE 33 ADVERSE DRUG REACTION REPORTS—SOURCE OF REPORTS—1971 TO 1975

Year	Medical practitioners			Other (including dentists, pharmacists and pharmaceutical companies)	Total	Per cent from hospitals
	Hospitals	General practitioners	Specialists	Total			
	No.	No.	No.	No.	No.	No.	%
1971	846	455	181	636	75	1 557	54.3
1972	1 102	494	224	718	97	1 917	57.5
1973	839	415	268	683	128	1 650	50.8
1974	796	356	243	599 r	88	1 483	53.7
1975	1 000	987	482	1 469	200	2 669	37.5

Therapeutic goods

TABLE 34 APPARENT CONSUMPTION (LICIT) OF THE PRINCIPAL NARCOTIC DRUGS—1971 TO 1975

Principal narcotic drug	Kilograms (a)					Kilograms per million persons (b)				
	1971	1972	1973	1974	1975	1971	1972	1973	1974	1975
Morphine	76	60	62	53	51	5.97	4.66	4.73	3.98	3.78
Codeine (c)	3 839	4 078	3 471	3 877	3 283	301.57	316.12	264.96	291.50	242.51
Ethylmorphine (c)	11	9	8	9	9	0.86	0.72	0.61	0.68	0.64
Cocaine	15	16	18	18	20	1.18	1.27	1.37	1.35	1.48
Pethidine	244	263	265	272	274	19.17	20.37	20.23	20.33	20.23
Methadone	11	17	23	25	29	0.86	1.30	1.76	1.88	2.11
Dextromoramide	10	10	9	10	11	0.79	0.74	0.69	0.75	0.78
Total	4 206	4 453	3 856	4 264	3 677	330.40	345.19	294.35	318.74	271.53

(a) Rounded to nearest kilogram.
(b) Calculated using unrounded figures.
(c) Includes quantities of these drugs used in the manufacture of preparations for export.

PUBLIC HEALTH

Notifiable diseases

TABLE 35 NOTIFIABLE DISEASES—CASES NOTIFIED FOR DISEASES NOTIFIABLE IN ALL STATES AND TERRITORIES—STATES AND TERRITORIES—1975

(Number)

Disease	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Anthrax	—	2	—	—	—	—	—	—	2
Brucellosis	29	41	4	4	1	—	—	—	79
Cholera	—	—	—	—	—	—	—	—	—
Diphtheria	7	—	15	—	—	—	—	—	22
Gonorrhoea	3 517	2 242	1 718	2 114	1 977	172	494	67	12 301
Hepatitis, infective	880	643	514	203	258	165	138	22	2 823
Hydatid	6	2	2	4	—	4	—	—	18
Leprosy	—	4	3	1	15	—	6	—	29
Leptospirosis	2	18	11	1	2	—	—	—	34
Malaria	36	48	68	24	22	—	37	14	249
Ornithosis	1	2	—	1	—	—	—	—	4
Plague	—	—	—	—	—	—	—	—	—
Poliomyelitis	—	—	1	—	—	—	—	—	1
Smallpox	—	—	—	—	—	—	—	—	—
Syphilis	304	177	482	305	657	2	438	12	2 377
Tetanus	1	4	6	—	—	—	—	—	11
Tuberculosis	549	306	216	101	141	34	30	24	1 401
Typhoid fever	2	10	—	2	—	—	—	—	14
Typhus (all forms)	—	—	3	—	—	—	—	—	3
Yellow fever	—	—	—	—	—	—	—	—	—

Notifiable diseases

TABLE 36 ADDITIONAL DISEASES—CASES NOTIFIED FOR DISEASES NOT NOTIFIABLE IN ALL STATES AND TERRITORIES—STATES AND TERRITORIES—1975

(Number)

Disease	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Acute rheumatism	(a)	1	29	3	(a)	(a)	6	—	39
Amoebiasis	(a)	3	65	—	3	—	1	2	74
Ankylostomiasis	(a)	—	27	—	3	—	201	—	231
Arbovirus infection—									
Australian encephalitis	—	—	(a)	(a)	(a)	—	—	(a)	—
Dengue	—	1	1	—	(a)	—	—	—	2
Diarrhoea, infantile	565	(a)	66	28	(a)	(a)	1 235	140	2 034
Dysentery bacillary	(a)	41	188	—	159	(a)	7	6	401
Encephalitis	11	12	8	1	—	(a)	2	5	39
Hepatitis, serum	91	138	(a)	55	—	1	—	11	296
Paratyphoid fever	2	(a)	—	1	—	—	—	—	3
Puerperal fever	(a)	—	2	—	1	—	5	—	8
Q fever	4	—	214	(a)	—	—	—	(a)	218
Rubella	(a)	499	49	73	(a)	(a)	9	2	632
Salmonella infection	(a)	31	(a)	243	159	22	96	38	589
Scarlet fever	(a)	96	8	16	1	(a)	1	3	125
Shigella	(a)	—	—	38	—	—	193	3	234
Trachoma	—	(a)	(a)	—	(a)	—	21	—	21

(a) Not notifiable.

Notifiable diseases

TABLE 37 VENEREAL DISEASE—ALL FORMS—NOTIFICATIONS—STATES AND TERRITORIES—1971 TO 1975

State or Territory	*1971*	*1972*	*1973*	*1974*	*1975*
			NOTIFICATIONS		
New South Wales	4 305	4 026	3 719	4 205	3 821
Victoria	2 229	2 344	2 074	2 177	2 419
Queensland	2 052	2 270	2 554	2 457	2 200
South Australia	939	1 194	1 650	2 348	2 419
Western Australia	1 492	1 727	1 958	2 446	2 634
Tasmania	127	156	166	253	174
Northern Territory	432	478	609	835	932
Australian Capital Territory	40	59	37	34	79
Australia	11 616	12 254	12 767	14 755	14 678
Rate per 100 000 population	*90.87*	*94.32*	*96.97*	*110.30*	*108.41*

Dental health

TABLE 38 AUSTRALIAN SCHOOL DENTAL SCHEME—CHILDREN TREATED—STATES AND TERRITORIES—1974 AND 1975

	Children treated (a)		*As percentage of population aged 3 to 14 years inclusive*	
State or Territory	*1974*	*1975*	*1974*	*1975*
	Number	*Number*	*%*	*%*
New South Wales	34 812	49 050	*3.46*	*4.83*
Victoria	24 903	16 996	*3.05*	*2.06*
Queensland	15 247	20 308	*3.38*	*4.48*
South Australia	36 585	42 006	*13.43*	*15.45*
Western Australia	10 987	27 867	*4.25*	*10.53*
Tasmania	53 304	50 516	*55.81*	*52.84*
Northern Territory	8 441	3 862	*30.27*	*15.12*
Australian Capital Territory	22 978	25 536	*48.93*	*50.18*
Australia	207 257	236 141	*6.96*	*7.86*

(a) Number of children who received routine dental examinations.

Dental health

TABLE 39 AUSTRALIAN SCHOOL DENTAL SCHEME—CLINICS AND PERSONNEL EMPLOYED—STATES AND TERRITORIES—1974 TO 1976

(Number at 30 June)

	Clinics						*Personnel*					
	Static			*Mobile*			*Dental therapists (a)*			*Total personnel (a)*		
State or Territory	*1974*	*1975*	*1976*	*1974*	*1975*	*1976*	*1974*	*1975*	*1976*	*1974*	*1975*	*1976*
New South Wales	14	14	23	13	18	21	10	15	27	101	115	171
Victoria	2	2	2	11	11	11	—	4	13	69	75	111
Queensland	—	1	10	4	4	9	—	3	31	32	42	124
South Australia	33 r	40 r	54	11	14	14	66	72	112	184	228	318
Western Australia	33	36	58	3	3	5	23	36	69	104	115	255
Tasmania	33	34	42	26	26	26	34	34	52	100	117	138
Northern Territory	6	8 r	8	4	3 r	3	3	7	16	11	17	31
Australian Capital Territory	41	44	48	—	—	—	15	21	21	67	80	76
Australia	162 r	179 r	245	72	79 r	89	151	192	341	668	789	1 224

(a) Excludes trainee dental therapists.

Dental health

TABLE 40 AUSTRALIAN SCHOOL DENTAL SCHEME—EXPENDITURE—STATES—1974-75 AND 1975-76

($'000)

	Training schools				*Field service*			
	Capital		*Recurrent*		*Capital*		*Recurrent*	
	1974-75	*1975-76*	*1974-75*	*1975-76*	*1974-75*	*1975-76*	*1974-75*	*1975-76*
New South Wales	2 788	1 586	306	785	426	530	673	1 061
Victoria	3 038	1 698	58	277	143	346	858	1 074
Queensland	1 982	3 541	181	559	370	1 758	448	439
South Australia	1 454	271	733	1 051	793	553	967	1 498
Western Australia	1 065	598	332	1 104	244	2 257	426	1 166
Tasmania	1	5	461	642	68	312	778	905
Total	10 328	7 699	2 071	4 418	2 044	5 756	4 150	6 143

HEALTH SERVICES

Community health

TABLE 41 COMMUNITY HEALTH PROGRAM—STATES AND TERRITORIES—1975-76
(Number)

Nature of project (a)	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Territories*	*National*	*Total*
Main community health centre (including primary medical care)	8	26	9	9	9	4	1 (b)	—	66
Community health sub-centre	3	1	7	—	—	2	—	—	13
Minor community health centre	37	21	2	6	—	3	—	—	69
Main community health resource centre (excluding primary medical care)	62	15	7	4	7	3	—	—	98
Minor community health resource centre	61	15	4	5	2	23	—	—	110
'Shop Front'/'Drop In' centre	27	2	1	1	—	—	—	—	31
Day hospital	2	23	—	1	—	1	—	—	27
Day care centre	10	3	—	1	1	4	—	—	19
Community health rehabilitation centre	14	1	—	1	—	—	—	—	16
Hostel/Halfway house/Group home	11	4	4	6	6	2	1 (c)	—	34
Referral/Assessment centre	5	2	4	1	1	3	—	—	16
Domiciliary service	5	5	—	1	5	1	—	—	17
Youth and adolescent service	2	4	3	1	—	2	—	—	12
Geriatric service	13	—	—	4	1	—	—	—	18
Maternal and child care service	4	8	—	—	3	—	—	—	15
Specific disability/disease service	3	1	—	—	1	—	—	—	5
Specific counselling service	7	5	—	—	—	—	—	—	12
Health education service	16	7	1	1	4	—	—	2	31
Health service training	11	5	3	7	2	2	—	6	36
Mobile health facility	6	3	2	1	2	1	—	—	15
Co-ordination/administrative service	18	4	4	5	2	4	—	1	38
Research/evaluation team	5	5	7	1	2	—	—	3	23
Other intra-state projects	11	1	3	—	—	1	—	2	18
National secretariat	—	—	—	—	—	—	—	4	4
Total	341	161	61	56	48	56	2	18	743

(a) The above categorisation of projects has been based on the *primary* function of each project, as some projects have characteristics of more than one category.
(b) Northern Territory.
(c) Australian Capital Territory.

MEDICAL SERVICES

Tuberculosis

TABLE 42 ALLOWANCES, NOTIFICATIONS, REACTIVATIONS AND DEATHS—1971 TO 1975
(Number)

Year ended 31 December	Allowances current at 31 December	Notifications (a)				Reactivations	Deaths	
		Pulmonary	All forms	Pulmonary per 100 000 of population	All forms per 100 000 of population	All forms	All forms	All forms per 100 000 of population
1971 . .	420	1 247	1 482	9.8	11.6	149	182	1.4
1972 . .	457	1 260	1 475	9.7	11.4	130	150	1.2
1973 . .	374	1 275	1 561	9.7	11.9	151	126	1.0
1974 . .	325	1 173	1 408	8.8	10.5	137	146	1.1
1975 . .	326	1 126	1 347	8.3	9.9	117	n.a.	n.a.

(a) Excludes reactivations.

Tuberculosis

TABLE 43 ALLOWANCES, NOTIFICATIONS, REACTIVATIONS AND DEATHS (a)—STATES AND TERRITORIES—1975
(Number)

State or Territory	Allowances current at 31 December 1975	Notifications (b) 1975				Reactivations 1975	Deaths 1974	
		Pulmonary	All forms	Pulmonary per 100 000 of population	All forms per 100 000 of population	All forms	All forms	All forms per 100 000 of population
N.S.W. . .	128	469	549	9.8	11.4	52	33	0.7
Vic. . .	58	227	291	6.2	7.9	29	52	1.4
Qld . .	75	184	200	9.2	10.0	16	22	1.1
S.A. . .	17	84	102	6.8	8.2	3	10	0.8
W.A. . .	23	87	121	7.7	10.7	13	10	0.9
Tas. . .	21	32	36	7.9	8.8	4	11	2.7
N.T. . .	4	28	30	31.2	33.4	—	5	4.9
A.C.T. . .	—	15	18	7.8	9.4	—	3	1.7
Aust. .	326	1 126	1 347	8.3	9.9	117	146	1.1

(a) Deaths shown are for 1974.
(b) Excludes reactivations.

Tuberculosis

TABLE 44 NOTIFICATIONS (a) OF PULMONARY TUBERCULOSIS AND ALL FORMS OF TUBERCULOSIS BY AGE GROUPS—STATES AND TERRITORIES—1975

(Number)

Age group	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
				PULMONARY					
0- 4	11	7	3	10	2	—	3	2	38
5- 9	5	12	2	3	1	—	—	—	23
10-14	1	3	—	2	—	—	1	—	7
15-19	8	4	—	1	—	1	—	—	14
20-24	22	13	3	3	9	4	2	2	58
25-29	23	9	6	9	5	1	—	1	54
30-34	20	12	8	5	3	2	2	2	54
35-39	30	14	12	1	6	1	1	3	68
40-44	26	10	8	4	5	1	2	2	58
45-49	44	22	16	8	11	2	4	2	109
50-54	61	22	24	2	9	4	4	—	126
55-59	49	28	25	11	8	4	3	—	128
60-64	46	17	25	9	9	4	1	1	112
65-69	38	21	17	4	7	4	2	—	93
70-74	34	17	14	5	5	1	1	—	77
75 and over	51	16	20	7	6	3	2	—	105
Not stated	—	—	1	—	1	—	—	—	2
Total	469	227	184	84	87	32	28	15	1 126
				ALL FORMS					
0- 4	26	13	8	11	8	—	3	2	71
5- 9	9	14	2	6	4	—	—	—	35
10-14	3	5	—	3	—	1	1	1	14
15-19	9	6	—	1	2	1	1	—	20
20-24	25	16	4	3	13	4	2	2	69
25-29	29	13	7	10	7	1	—	1	68
30-34	25	20	9	5	4	3	2	2	70
35-39	37	22	13	2	8	1	1	3	87
40-44	34	15	9	6	7	1	3	4	79
45-49	51	27	17	11	12	2	4	2	126
50-54	68	25	26	3	14	4	4	—	144
55-59	49	31	25	12	10	6	3	—	136
60-64	53	23	25	11	10	4	1	1	128
65-69	40	24	18	4	9	4	2	—	101
70-74	36	19	15	6	5	1	1	—	83
75 and over	55	18	21	8	7	3	2	—	114
Not stated	—	—	1	—	1	—	—	—	2
Total	549	291	200	102	121	36	30	18	1 347

(a) Excludes reactivations.

Tuberculosis

TABLE 45 RESULTS OF MASS X-RAY SURVEYS—STATES AND TERRITORIES—1975

State or Territory	*Number examined*	*Active and probably active T.B. cases (a)*	
		Number found	*Rate per 1000 examined*
New South Wales	336 323	61	0.18
Victoria	401 397	46	0.11
Queensland	276 445	44	0.16
South Australia	69 741	6	0.09
Western Australia	—	—	—
Tasmania	63 080	7	0.11
Northern Territory	3 619	6	1.66
Australian Capital Territory	—	—	—
Australia	1 150 605	170	0.15

(a) Cases of active and probably active T.B. found from X-rays taken in 1975.

Tuberculosis

TABLE 46 SOURCES OF NOTIFICATIONS OF NEW CASES AND REACTIVATIONS—PULMONARY—STATES AND TERRITORIES—1975

Source of discovery	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*	*% of total*
Mass X-ray surveys (a)	98	47	43	6	—	7	5	—	206	*16.68*
Private medical practitioners	101	42	38	21	21	1	—	5	229	*18.54*
General and chest hospitals	122	58	77	20	26	12	10	—	325	*26.32*
Chest clinics	126	73	26	37	36	15	11	10	334	*27.04*
Repatriation clinics and hospitals	19	19	8	3	9	1	—	—	59	*4.78*
Death certificates (b)	10	7	6	—	2	—	1	—	26	*2.11*
Special surveys—										
Mental hospital surveys	9	5	—	—	—	—	—	—	14	*1.13*
Gaol surveys	1	—	—	—	—	—	1	—	2	*0.16*
Others	34	—	2	—	4	—	—	—	40	*3.24*
Total	520	251	200	87	98	36	28	15	1 235	*100.00*
% from mass X-ray surveys	18.85	18.73	21.50	6.90	—	19.44	17.86	—	16.68	

(a) Includes cases suspected and under investigation prior to 1975, but not confirmed until 1975, and cases detected and confirmed in 1975.
(b) Persons who died from active tuberculosis, not previously notified.

Tuberculosis

TABLE 47 EXPENDITURE UNDER THE *TUBERCULOSIS ACT* 1948—1971-72 TO 1975-76

($'000)

Year ended 30 June	*Commonwealth Government reimbursements to States and payments in Territories*		*Allowances paid to sufferers through Department of Social Security*	*Total*
	Capital (a)	*Maintenance*		
1972	438	9 941	630	11 009
1973	388	11 242	780	12 409
1974	441	11 741	716	12 898
1975	131	13 571	759	14 460
1976	241	11 691	898	12 830

(a) Excludes capital expenditure for N.T. and A.C.T.

Tuberculosis

TABLE 48 EXPENDITURE UNDER THE *TUBERCULOSIS ACT* 1948—STATES AND TERRITORIES—1975-76

($'000)

State or Territory	*Commonwealth Government reimbursements to States and payments in Territories*		*Allowances paid to sufferers through Department of Social Security*	*Total*
	Capital	*Maintenance (a)*		
New South Wales	2	3 030	363	3 395
Victoria	2	4 603	191	4 796
Queensland	203	1 822	160	2 185
South Australia	30	685	54	769
Western Australia	—	647	77	724
Tasmania	4	547	46	597
Northern Territory	n.a.	258	4	262 (b)
Australian Capital Territory	n.a.	99	3	102 (b)
Australia	241 (c)	11 691	898	12 830 (c)

(a) Includes $680 000 payable from the Consolidated Revenue Fund.
(b) Excludes capital expenditure.
(c) Excludes capital expenditure for N.T. and A.C.T.

Pathology laboratories

TABLE 49 PATHOLOGY EXAMINATIONS AND LABORATORY TESTS PERFORMED AND PATIENT REQUESTS—1974-75 AND 1975-76

(Number)

Laboratory	*Examinations and tests*		*Patient requests (a)*	
	1974-75	*1975-76*	*1974-75*	*1975-76*
Albury	171 503	216 724	47 024	60 172
Alice Springs (b)	94 859	105 914	44 271	46 061
Bendigo	220 658	254 883	69 828	70 789
Cairns	442 140	465 537	152 465	144 928
Canberra	1 147 626 (c)	(d)	248 648 (c)	(d)
Darwin (e)	221 979	284 293	78 500	109 396
Hobart	265 683	258 782	57 195	50 270
Kalgoorlie	98 331	107 759	37 857	38 263
Launceston	172 644	196 212	53 073	64 741
Lismore	391 233	475 001	94 611	120 378
Port Pirie	24 375	49 350	7 578	10 963
Rockhampton	298 352	319 290	80 328	81 877
Tamworth	287 980	299 130	78 842	87 394
Toowoomba	369 488	436 220	103 974	121 572
Townsville	338 368	405 150	103 528	100 462
Total	4 545 219	3 874 245	1 257 722	1 107 266

(a) Number of persons on behalf of whom tests were performed in the major work specialisation areas of the laboratory, e.g. Haematology, Biochemistry, Microbiology, etc. Involves some multiple counting in the case of the work done for patients in more than one of the areas.
(b) Includes figures for Tennant Creek.
(c) Includes figures for Woden Valley Hospital.
(d) Canberra laboratory transferred to Capital Territory Health Commission.
(e) Includes figures for Katherine, East Arm and Gove.

Note: In addition to normal diagnostic pathology work, the Laboratories may undertake laboratory work of a public health nature—for example, bacteriological analysis of water. Serological examination of local donor blood is also undertaken in most of the Laboratories on behalf of the Red Cross Blood Transfusion Service. Figures relating to this additional work are included in the statistics above.

National Acoustic Laboratories

TABLE 50 NEW CASES EXAMINED AND CALAID HEARING AIDS FITTED AND ON LOAN—STATES AND TERRITORIES—1975-76

(Number)

Category	*N.S.W. and A.C.T.*	*Vic.*	*Qld*	*S.A. and N.T.*	*W.A.*	*Tas.*	*Aust.*
New cases examined 1975-76—							
Persons under 21 years (a)	6 241	4 097	3 809	1 449	998	908	17 502
Pensioners (excluding Repatriation) (b)	3 957	3 094	1 912	1 436	954	488	11 841
Repatriation (c)	2 068	1 125	671	384	365	183	4 796
Other	643	251	1 044	290	180	130	2 538
Sub-total	12 909	8 567	7 436	3 559	2 497	1 709	36 677
Department of Transport referrals (d)	182	191	127	57	100	37	694
Total	13 091	8 758	7 563	3 616	2 597	1 746	37 371
Calaid hearing aids fitted 1975-76—							
Persons under 21 years (a)	3 309	1 782	1 823	880	731	335	8 860
Pensioners (excluding Repatriation) (b)	6 512	3 937	2 854	2 549	1 294	895	18 041
Repatriation (c)	1 987	903	743	671	456	301	5 061
Other	40	18	51	14	1	1	125
Total	11 848	6 640	5 471	4 114	2 482	1 532	32 087
Calaid hearing aids on loan at 30 June 1976—							
Persons under 21 years (a)	8 598	6 947	4 665	2 993	1 733	822	25 758
Pensioners (excluding Repatriation) (b)	29 455	16 254	10 653	8 152	5 328	2 594	72 436
Repatriation (c)	13 101	7 353	3 759	3 125	2 837	1 262	31 437
Other	1 365	136	208	521	290	9	2 529
Total	52 519	30 690	19 285	14 791	10 188	4 687	132 160

(a) All persons under 21 years of age included in this category irrespective of source of referral.
(b) Pensioners and their dependants are defined in the National Health Act.
(c) Persons referred by Department of Repatriation.
(d) Audiometric examinations of flight crews as required by the Department of Transport and for which a charge is made; hearing aids are not provided to these persons.

Australian Radiation Laboratory

TABLE 51 AUSTRALIAN RADIATION LABORATORY STATISTICS—1971-72 TO 1975-76

	Year ended 30 June				
	1972	*1973*	*1974*	*1975*	*1976*
Expenditure from the National Welfare Fund on radiopharmaceuticals for medical diagnosis and therapy purposes ($)	925 097	1 326 240	1 611 999	2 439 415	2 762 833
Radiopharmaceuticals issued (a) for medical diagnosis and therapy purposes	246 467	410 812 r	509 223 r	932 541 r	1 130 000
Radiopharmaceuticals procured—shipments received from—					
Overseas	1 439	1 512	1 527	1 549	1 580
Australian Atomic Energy Commission	10 922	14 002	13 457	16 665	18 341
Total	12 361	15 514	14 984	18 214	19 921
Radiochemistry and low level measurement—samples processed	7 209	4 669	5 028	9 365	1 782
Film-badge services (b)—					
Films assessed during year	74 345	79 550	88 067	92 132	96 793
Centres registered at end of year	1 646	1 776	1 919	2 048	2 200
			(mCi)		
Radon services—issues (c)—					
Hospitals	14 084	14 019	13 357	10 347	11 924
Private practitioners	8 161	8 027	8 616	8 467	11 149
Veterinary use	1 631	991	790	1 341	2 520
Miscellaneous purposes	202	90	106	109	212
Total	24 078	23 127	22 869	20 264	25 805

(a) Denotes a radiopharmaceutical container dispatched from the laboratory. For *in vivo* use the radiopharmaceutical in the container may consist either of an individual patient dose or of bulk issue from which a number of patient doses will be dispensed. For *in vitro* use where the radiopharmaceutical is in kit form the number of issues is the number of tests that may be performed. This number will be greater than the number of patient assays performed since they are generally done in duplicate and standards and controls are necessary. For *in vitro* use where the radiopharmaceutical is not in kit form the number of issues is the number of containers dispatched and the material in each container may be used for a large number of assays.

(b) Issue of film-badges to people working with ionising radiations to permit assessment of the doses of radiation received by them in the course of their work.

(c) The activities of radon in millicuries (mCi) at time of use.

Australian Dental Standards Laboratory

TABLE 52 SAMPLES TESTED FOR WHICH LABORATORY REPORTS WERE ISSUED—1975-76

(Number)

Type of product	*Local manufacturers and distributors*	*Overseas manufacturers*	*Public instrumentalities*	*Internal*	*Total*
Mineral products	13	—	1	4	18
Cements	2	—	—	—	2
Metals and alloys	39	12	—	—	51
Synthetic resins	15	8	5	8	36
Waxes and impression materials	7	3	3	—	13
Instruments and devices	11	1	61	—	73
Therapeutic materials	33	—	—	—	33
Total	120	24	70 (a)	12	226

(a) Fewer samples were tested for public instrumentalities than in previous years because of the termination of a major program of tropical trials for the armed forces.

Commonwealth Medical Officers

TABLE 53 CLINICAL EXAMINATIONS BY COMMONWEALTH MEDICAL OFFICERS—STATES AND TERRITORIES—1975-76

(Number)

State or Territory	*Staff of Commonwealth Government Departments and Authorities*	*Seamen*	*Pensioners*	*Others*	*Total*
New South Wales	26 465	985	6 540	—	33 990
Victoria	15 879	213	4 120	—	20 212
Queensland	5 254	300	2 210	—	7 764
South Australia	3 266	26	2 998	691	6 981
Western Australia	3 362	181	1 861	—	5 404
Tasmania	886	28	443	32	1 389
Northern Territory	2 374 (a)	43	204	990	3 611
Australian Capital Territory	11 604	—	280	2 711	14 595
Australia	69 090	1 776	18 656	4 424	93 946

(a) Includes 401 Timor refugees.

Commonwealth Medical Officers

TABLE 54 VACCINATIONS BY COMMONWEALTH MEDICAL OFFICERS (a)—STATES AND TERRITORIES—1975-76

(Number)

Vaccination type	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Cholera	66 073	46 598	18 703	23 962	13 949	4 126	15 122	19 996	208 529
Combined Cholera and Typhoid	60 919	95	6 579	—	3 385	2 955	—	—	73 933
Gamma Globulin	5	2	—	—	25	—	108	29	169
Influenza	29	2	—	—	—	—	458	3	492
Plague	—	—	8	46	—	—	6	54	114
Smallpox	70 753	38 936	15 988	14 848	8 763	3 708	8 071	10 417	171 484
Tetanus	109	13	12	167	1	17	784	152	1 255
Typhoid	1 747	19 139	1 720	8 274	12	—	5 979	11 969	48 840
Typhus	—	—	—	44	—	—	—	24	68
Yellow Fever	3 339	2 039	732	746	1 657	310	140	338	9 301
Other (b)	—	6	13	—	—	—	5	—	24
Total	202 974	106 830	43 755	48 087	27 792	11 116	30 673	42 982	514 209

(a) Figures for all States except S.A. represent the total number of injections given. Figures for S.A. show the number of courses given.
(b) Includes diphtheria, C.D.T., rubella, Sabin, and triple antigen.

NATIONAL BIOLOGICAL STANDARDS LABORATORY

Samples examined

TABLE 55 SUMMARY OF SAMPLES EXAMINED FOR COMPLIANCE WITH OFFICIAL STANDARDS OR ACCORDING TO MANUFACTURERS SPECIFICATIONS—1974-75 AND 1975-76

	Number examined		*Failures*		*Percentage failures*	
	1974-75	*1975-76*	*1974-75*	*1975-76*	*1974-75*	*1975-76*
					%	%
Pharmaceutical Products—						
Products on the pharmaceutical benefits list	348	257	23	22	6.6	8.6
Products recommended by the Pharmaceutical Benefits Advisory Committee	57	26	2	1	3.5	3.8
New brands of existing pharmaceutical benefits	60	68	6	8	10.0	11.8
Products tested for other Federal Departments	82	69	14	8	17.1	11.6
Antibiotics for veterinary use	21	23	3	8	14.3	34.8
Miscellaneous drug samples (a)	19	71	5	1	26.3	1.4
Biological Products—						
Viral vaccines for human use	11	5	—	—	—	—
Bacterial vaccines for veterinary use	42	25	8	8	19.0	32.0
Total	640 (b)	544 (b)	61	56	9.5	10.3

(a) Samples of products about which complaints have been received, samples taken prior to granting of authorities to import subject to Customs (Prohibited Imports) Regulations, samples tested on behalf of other authorities and samples taken in surveys other than those listed above.
(b) Figures for additional samples examined for compliance with draft standards or tested during the development of test methods or draft standards but which were not subject to Ministerial Orders, are as follows:

	1974-75	1975-76
Pharmaceutical products	183	293
Biological products	239	190
Total	422	483

Safety tests

TABLE 56 SAFETY TESTS PERFORMED—1974-75 AND 1975-76

	Examined		*Failed*		*Indeterminable*	
Type	*1974-75*	*1975-76*	*1974-75*	*1975-76*	*1974-75*	*1975-76*
Disposable medical equipment	15	9	—	—	—	1
Histamine-like substances	4	9	—	2	—	—
Pyrogens	32	77	—	3	—	—
Sterility	68	145	—	2	1	6
Toxicity	27	22	—	—	1	—
Viral vaccine identity and safety testing	53	59	16	5	—	—
Total	199	321	16	12	2	7

MANAGEMENT SERVICES

Expenditure on health

TABLE 57 DEPARTMENTAL EXPENDITURE—1971-72 TO 1975-76

Note: Figures shown in italics are included for comparison only, and have not been added into totals. See footnote (b).

($'000)

Type	*1971-72*	*1972-73*	*1973-74*	*1974-75*	*1975-76*
SPECIAL APPROPRIATIONS					
Remuneration Tribunals Act	(a)	(a)	(a)	15 r	39
Payments to or for the States—					
Mental health and related services assistance	(a)	(a)	6 725	6 185	30
Mental health institutions—					
Contributions to capital expenditure	4 206 r	3 430	2 249	—	—
States grants—Nursing homes	460	1 019	658	220	—
States grants—Paramedical services	7	77	97	99	98
TOTAL PAYMENTS TO OR FOR THE STATES	4 673 r	4 526	9 729	6 504	128
NATIONAL WELFARE FUND ACT					
National Health Act—					
Medical benefits	132 574	*160 238*	*163 449*	*195 818*	*80 744*
Medical services for pensioners	27 804	*30 822*	*35 417*	*47 800*	*5 344*
Hospital benefits	67 305	*82 270*	*89 488*	*116 150*	*103 165*
Payments to public hospitals for pensioners	24 065 (b)	*23 768*	*24 295*	*25 187*	*7 196*
Nursing home benefits	70 593	*84 736*	*86 741*	*87 333*	*75 461*
Additional nursing home benefits for pensioners	(a)	*8 100*	*25 999*	*64 157*	*68 309*
Domiciliary care benefit	(a)	*1 022*	*6 309*	*7 112*	*7 697*
Handicapped persons' homes—Children's benefits	438	*(a)*	*(a)*	*(a)*	*(a)*
Pharmaceutical benefits	121 263	119 493	151 493	181 643	176 509
Pharmaceutical benefits for pensioners	52 005	58 139	66 803	80 699	107 334
Milk for school children	11 845	11 717	8 079	47	8
Tuberculosis medical services and allowances (c)	10 226	11 635	12 083 r	14 293	11 909
Aids and appliances					3 501
Pathology laboratories					(d) 7 655
Home nursing services					7 200
Miscellaneous	8 435 r	9 723	12 408 r	17 783 r	6 168
Other Acts—					
Payments under the Nursing Homes Assistance Act—					
Deficit financing of eligible organisations	—	—	—	*10 103*	*51 904*
TOTAL NATIONAL WELFARE FUND	526 553 r	210 707	250 866	294 465 r	320 284
TOTAL SPECIAL APPROPRIATIONS	531 226 r	215 233	260 595	300 984 r	320 451
CONSOLIDATED REVENUE FUND					
Administrative expenditure	26 420	29 633 (e)	34 205	50 706 r	55 213
Hospitals and Health Services Commission	(a)	(a)	596	1 198	1 110
Northern Territory hospitals	8 295	10 128	13 649	17 672	19 400
Northern Territory health services other than hospitals	3 618	4 566	6 804	10 617 r	12 547
Total Northern Territory health services	11 913	14 694	20 453	28 289 r	31 947
Capital Territory Health Commission	7 386	9 022	15 676	27 186	27 521 (f)
Health Insurance Commission	(a)	(a)	(a)	(a)	817 255 (g)
Capital works and services	2 262	4 786	4 527	11 246 r	25 983
Payments to or for the States	2 561	3 275	23 397	82 193	192 507
TOTAL CONSOLIDATED REVENUE FUND	50 542	61 410	98 854	200 818 r	1 151 536
TOTAL EXPENDITURE	581 768 r	276 643	359 449	501 802 r	1 471 987

(a) Not applicable.

(b) Control of these items was transferred to the Department of Social Security from 1 March 1973. Expenditure for the whole of 1972-73 has been excluded. From 1 July 1976 these items, with the exception of the handicapped persons homes—children's benefit, came under the control of this Department. However, no expenditure in relation to these items has been incurred by this Department. The figures that appear in italics have been included for comparison only and have not been added into totals.

(c) Includes allowances paid through the Department of Social Security—see Tables 47 and 48.

(d) Prior to 1975-76 expenditure for these items included under Miscellaneous.

(e) The administration of the Health Insurance and Benefits Division of the Department of Health was transferred to the Department of Social Security from 1 March 1973 and expenditure incurred by that Division since that date is excluded. From 1 July 1976 the Medical Insurance Services and the Hospital Insurance and Nursing Divisions transferred to the Department of Health from the Department of Social Security.

(f) Prior to 1 July 1975 figures are Departmental expenditure on the administration of the Australian Capital Territory Hospitals and Health Services.

(g) For period 1 January 1976 to 30 June 1976. See also Table 87.

Health grants

TABLE 58 ALLOCATION OF GRANTS—STATES (a), TERRITORIES AND OTHER BODIES—1975-76 ($'000)

Type	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Other*	*Aust.*
COMMUNITY HEALTH GRANTS										
Community Health Program	24 430	10 863	5 421	3 813	2 877	1 954	40	17	4 874 (b)	54 289
Community Mental Health Program	—	—	—	27	—	—	—	—	3 (c)	30
Hospital Development Program	37 700	27 280	15 280	12 900	11 900	2 090	—	—	—	107 150
Planning and Research Program	200	20	70	75	110	25	—	—	367 (d)	867
GENERAL HEALTH GRANTS										
Australian Encephalitis (Mosquito control)	3	55	—	—	—	—	—	—	—	58
Family Planning Program	—	—	—	—	—	—	—	—	753 (e)	753
Home Dialysis	187	29	48	40	23	—	—	—	—	327
Home Nursing Subsidy Scheme (f)	1 762	2 100	1 336	591	1 214	197	—	—	—	7 200
Howard Florey Institute	—	—	—	—	—	—	—	—	500	500
Milk for School Children Scheme	—	—	—	—	8	—	—	—	—	8
Paramedical Services Scheme	—	232	—	168	—	10	—	—	—	410
Red Cross Blood Transfusion Service	1 391	1 084	576	573	342	99	131	(g)	—	4 196
Walter and Eliza Hall Institute	—	—	—	—	—	—	—	—	500	500
Wynnum Public Nursing Home	—	—	925	—	—	—	—	—	—	925

(a) State health authorities unless otherwise specified.
(b) Includes $4 327 000 paid to R.A.C.G.P. for the Family Medicine Program and a total of $547 000 paid to 19 other national organisations.
(c) Paid to Recovery (Grow) for expenditure incurred in 1974-75.
(d) Grants to universities and other organisations, and for seminars.
(e) Includes an amount of $250 000 paid to the Australian Federation of Family Planning Associations and $125 000 paid to the Australian Catholic Social Welfare Commission. The remaining $378 000 was paid to 22 other organisations.
(f) Represents monies paid directly to eligible home nursing organisations in the States shown.
(g) Function transferred to Capital Territory Health Commission.

Health grants

TABLE 59 ROYAL FLYING DOCTOR SERVICE—1968-71 TO 1974-77

($)

Financial triennium	*Operating*	*Capital*	*Special capital (a)*
1968-71	540 000	498 401	12 526
1971-74	945 000	509 722	472 314
1974 77 (b)	1 400 000	301 746	62 653

(a) Mandatory changeover of 12 base radio stations from double sideband to single sideband radio operation.
(b) Current triennium expenditure shown is for first two years only.

NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL

The figures in Table 60 relate to grants awarded from the Medical Research Endowment Fund for the years 1972 to 1976. Prior to 1976, figures are those based at the time of award, the salary component being the rate applicable at May of the previous year. The 1976 figure has been calculated using the salary rates applicable at 1 January 1976.

Figures relating to actual expenditure on medical research grants in 1975 are contained in Table 61. These figures include adjustments for salaries for 1975 and some retrospective adjustments to grants processed in earlier years. Therefore, expenditure for 1975 as shown in Table 61 exceeds grants awarded for 1975 (Table 60).

Medical research grants

TABLE 60 GRANTS AWARDED FROM THE MEDICAL RESEARCH ENDOWMENT FUND—1972 TO 1976

($)

Year of support	*1972*	*1973*	*1974*	*1975*	*1976*
	2 692 604	3 529 781	5 121 952	4 805 955	5 243 616

Medical research grants

TABLE 61 ANALYSIS OF EXPENDITURE (a) ON MEDICAL RESEARCH GRANTS—1975 (b)
($)

MEDICAL RESEARCH GRANTS	*Salaries*	*Salary oncosts (c)*	*Maintenance*	*Equipment*	*Total*
Project grants	3 725 569	206 880	718 829	115 843	4 767 121
Walter and Eliza Hall Institute	613 685	92 431	96 684	—	802 800
Howard Florey Institute	340 614	78 140	52 155	—	470 909
Social Psychiatry Unit	59 050	8 453	12 490	—	79 993
Cardiovascular Research Fellow	17 396	348	925	21 968	40 637
Renal Research Fellow	15 302	839	3 500	1 000	20 641
Total	4 771 616	387 091	884 583	138 811	6 182 101

TRAINING GRANTS	*Salaries and allowances*	*Salary oncosts (c)*	*Maintenance*	*Travel*	*Total*
Fellowships:					
C. J. Martin	113 737	5 157	7 204	3 714	129 812
Clinical Science	197 404	4 112	771	8 768	211 055
Public Health	—	—	—	21 792	21 792
Occupational Health	4 904	—	—	14 746	19 650
Scholarships:					
Postgraduate	392 778	—	25 350	—	418 128
Undergraduate	23 400	—	—	—	23 400
Total	732 223	9 269	33 325	49 020	823 837

SPECIAL GRANTS	*Salaries*	*Salary oncosts (c)*	*Maintenance*	*Equipment*	*Total*
Leukemia trial (d)	15 900	318	7 310	—	23 528
National blood pressure study	—	—	30 000	—	30 000
Multiphasic Health Screening	2 715	149	13 400	19 936	36 200
Market Basket Survey	—	—	1 791	—	1 791
Microbiological Status of Food Survey	—	—	3 941	—	3 941
Total	18 615	467	56 442	19 936	95 460
Grand total	5 522 454	396 827	974 350	158 747(e)	7 101 398(f)

(a) Expenditure includes moneys provided to meet salary increases including retrospective adjustments.
(b) Calendar year.
(c) Salary oncosts include payroll tax, workers compensation and superannuation premiums.
(d) Australian trial of immunotherapy versus chemotherapy in the maintenance of acute adult leukemia.
(e) Equipment expenditure only.
(f) Includes travelling expenses of $49 020 in respect of training grants.

NORTHERN TERRITORY

Northern Territory health

TABLE 62 NUMBER ON REGISTERS AND NEW REGISTRATIONS GRANTED—1974-75 AND 1975-76

(Number)

Type	*Number on register at 30 June*		*New registrations granted*	
	1975	*1976*	*1974-75*	*1975-76*
Dental practitioners	66	76	9	10
Dental therapists	7	14	5	7
Medical practitioners	506	614	192	108
Nurses	1 296	1 656	508	360
Optometrists	15	16	2	1
Pharmacists	96	103	3	7
Total	1 986	2 479	719	493

Northern Territory health

TABLE 63 IMMUNISATIONS—SUMMARY OF DOSES ADMINISTERED AT MAIN HOSPITALS AND HEALTH CENTRES—1971-72 TO 1975-76

(Number)

	Hospitals					*Health Centres (a)*				
	1971-72	*1972-73*	*1973-74*	*1974-75*	*1975-76*	*1971-72*	*1972-73*	*1973-74*	*1974-75*	*1975-76*
Darwin	1 202	1 676	1 585	810	839	10 634(b)	11 323 (b)	14 012(b)	16 770(b)	12 644(b)
Alice Springs	1 196	2 332	1 233	2 237	1 587	1 258	1 184	1 023	672	5 184
Katherine	879	1 047	1 037	1 436	990	478	570	1 320	1 136	662
Tennant Creek	383	623	553	1 315	493	1 221	1 500	1 657	529	974
Gove	2 265	1 445	298	310	389	—	300(c)	937	1 129	1 292
Adelaide River	(d)	(d)	(d)	(d)	(d)	n.a.	34	34	22	223
Batchelor	(d)	(d)	(d)	(d)	(d)	n.a.	70	108	52	230

(a) Prior to 1975-76 figures represent immunisations administered at infant health centres. Figures for 1975-76 represent immunisations given by community health centres in major urban townships.
(b) Figures for Darwin include immunisations at infant health centres conducted by schools medical staff. Figures for 1974-75 exclude figures for December 1974.
(c) Infant Health Service operative from October 1972.
(d) No hospital at this locality.

Northern Territory health

TABLE 64 AERIAL MEDICAL SERVICE—1975-76

	Darwin	*Alice Springs*	*Gove*	*Total*
Northern Territory Aerial Medical Service—				
Routine flights	304	215	135	654
Emergency flights	217	34	79	330
Inter-hospital transfers	27	21	19	67
Mercy flights	1 (a)	—	—	1
Miles flown	229 221	158 578	108 363	496 162
Hours flown	1 733	1 105	834	3 672
Landings made	1 519	858	805	3 182
Patients carried	1 314	545	865	2 724
Royal Flying Doctor Service—				
Emergency flights	—	307	—	307
Patients carried	—	444	—	444
Charter and diversion flights—				
Number of flights	28	39	67	134
Patients carried	47	55	84	186
Commercial flights—				
Patients carried	684	11	166	861
Radio medical consultations (b)	2 264	1 451	—	3 715

(a) RAAF helicopter flight.
(b) Excludes radio telephone consultations.

Northern Territory health

TABLE 65 HEALTH SERVICES PROVIDED AT MAIN NORTHERN TERRITORY HOSPITALS—1975-76

	Darwin	*Alice Springs*	*Katherine*	*Tennant Creek*	*Gove*
Average daily number of in-patients	220	131	39	14	36
Number of—Admissions	10 752	5 466	1 971	1 109	1 663
Bed days	80 686	47 833	14 183	5 139	13 303
Births	1 221	623	134	48	181
Deaths in hospital (a)	135	79	15	18	14
Major operations	1 387	543	77	—	51
Minor operations	2 537	1 457	764	95	196
Dental operations	33	25	9	28	3
Out-patient attendances	109 322	58 835	14 514	20 987	23 557
Postmortem examinations	177	78	29	15	10
Ambulance Services					
Number of—Trips	(b)	1 206	322	236	430
Miles travelled	(b)	38 809	18 012	16 163	6 711
Patients carried	(b)	1 202	356	241	470
Dispensaries—Prescriptions dispensed	269 737	142 847	36 405	27 709	116 844
Average number of prescriptions dispensed per working day	1070.38	569.11	145.04	199.56	465.51
Physiotherapy Department (c)					
Number of—Patients	5 245	2 033	427 (d)	292 (e)	—
Treatments	27 288	9 018	1 660	1 083	—
Occupational Therapy Department (c)					
Number of—Patients	1 378	—	—	—	—
Treatments	16 036	—	—	—	—
Speech Therapy Department					
Number of—Patients	493 (f)	—	—	—	—
Treatments	1 227	—	—	—	—
X-ray Department (c)					
Number of exposures	74 036	16 943	6 363	2 865	4 604

(a) Does not include neo-natal non-admitted or dead on arrival.
(b) Service provided by St. John Ambulance Brigade: statistics are not available.
(c) In-patients and out-patients.
(d) Ceased 30.1.76.
(e) Commenced 1.9.75.
(f) Re-commenced 1.7.75.

Northern Territory health

TABLE 66 DENTAL SERVICES PROVIDED IN THE NORTHERN TERRITORY—1975-76

	Darwin Dental Clinic	Aerial Mobile Darwin based	Overland Mobile Darwin based	Katherine Dental Clinic(a)	Alice Springs Clinic	Alice Springs Mobile	Gove Dental Clinic	Tennant Creek Dental Clinic	Total
Amalgam	8 555	186	58	3 048	8 060	594	4 501	3 077	28 079
Bridges	3	—	—	5	—	—	4	11	23
Consultations and examinations	3 715	83	166	1 545	5 125	1 080	1 990	1 612	15 316
Crowns	38	—	—	37	22	2	39	25	163
Dressings	4 981	13	6	788	1 859	41	844	563	9 095
Extractions	5 784	140	24	971	1 992	185	2 004	750	11 850
General anaesthetics (b)	75	—	—	8	28	—	4	—	115
Inlays	25	—	—	4	7	—	2	3	41
Jaw fracture	58	—	—	3	8	—	1	—	70
Oral surgery	257	2	2	18	75	14	56	29	453
Orthodontic	4 534	—	—	46	1 414	—	28	14	6 036
Periodontal treatment	786	—	—	241	787	12	91	678	2 595
Prosthetic	2 218	1	—	581	817	8	1 317	582	5 524
Recements	305	—	—	22	106	1	71	18	523
Root treatment	712	2	—	109	508	28	153	186	1 698
Scale and clean	1 417	—	—	656	3 410	70	922	838	7 313
Silicates	1 427	44	18	547	1 060	64	1 427	695	5 282
Study models	4	—	—	62	26	—	86	30	208
X-rays	2 459	—	16	819	1 287	12	972	647	6 212
Other treatments	4 217	13	6	630	5 781	26	421	421	11 515
Total treatments	41 570	484	296	10 140	32 372	2 137	14 933	10 179	112 111
Patients treated									
Aboriginal adults—									
Paying	64	3	24	51	6	—	102	14	264
Exempt	275	93	6	70	367	265	787	77	1 940
Non-aboriginal adults—									
Paying	12 407	39	47	2 946	6 859	69	5 254	2 236	29 857
Exempt	295	40	2	93	224	74	155	547	1 430
Children—									
Aboriginal	147	130	146	250	121	759	278	211	2 042
Non-aboriginal	17 949	12	36	2 874	11 730	142	2 837	2 945	38 525
Total patients treated	31 137	317	261	6 284	19 307	1 309	9 413	6 030	74 058

(a) Commissioned 20 February 1975.
(b) For dental surgery performed in hospitals.

DIVISIONAL OFFICES

Handicapped child's allowance

TABLE 67 APPLICATIONS PROCESSED, APPROVED OR REJECTED—STATES—1 JULY 1975 TO 30 JUNE 1976

State	*Applications processed*	*Applications approved*	*Applications rejected*	*% of Applications rejected*
New South Wales (a)	2 315	1 791	524	22.6
Victoria	1 719	1 549	170	9.9
Queensland	687	511	176	25.6
South Australia (a)	682	629	53	7.8
Western Australia	457	434	23	5.0
Tasmania	280	232	48	17.1
Australia	6 140	5 146	994	16.2

(a) Figures for the Northern Territory and Australian Capital Territory are included in those for South Australia and New South Wales, respectively.

SCHOOL OF PUBLIC HEALTH AND TROPICAL MEDICINE

Laboratory and clinical examinations

TABLE 68 LABORATORY AND CLINICAL EXAMINATIONS—1971-72 TO 1975-76

	Number of examinations				
Sub-section	*1971-72*	*1972-73*	*1973-74*	*1974-75*	*1975-76*
Occupational health—					
Medical examinations	337	647	2 317	9 435 (a)	3 403
Laboratory examinations:					
Routine	182	212	283	191	99
Consultative	50	49	134	35	68
Medical examinations at Commonwealth Government factories in New South Wales	29 388	29 303	27 003	(b)	(b)
Total	29 957	30 211	29 737	9 661	3 570
Parasitology—					
Routine	1 648	1 134	1 782	2 119	1 345
Research	2 903	2 033	3 414	2 356	2 385
Total	4 551	3 167	5 196	4 475	3 730
Pathology and microbiology—					
Histopathology (consultant)	765	902	1 135	1 234	1 064
Serology	1 871	1 884	2 135	1 557	1 303
Bacteriology	288	605	434	869	636
Mycology	152	140	157	106	70
Quarantine exclusion tests	23	669 (c)	47	63	25
Total	3 099	4 200	3 908	3 829	3 098
Total examinations performed	37 607	37 578	38 841	17 965	10 398

(a) Includes medical examinations performed as part of National Heart Foundation Hypertension Trial.
(b) Not applicable.
(c) Includes quarantine exclusion tests associated with cholera outbreak.

HEALTH INSURANCE AND NURSING

Medical, hospital, nursing

TABLE 69 EXPENDITURE ON COMMONWEALTH BENEFITS AND PAYMENTS UNDER THE NATIONAL HEALTH AND NURSING HOMES ASSISTANCE ACTS—STATES (a)—1975-76

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
NATIONAL HEALTH ACT—							
Medical benefits (b)	33 936	24 243	8 245	6 942	5 737	1 641	80 744
Medical services for pensioners (c)	1 963	1 472	822	539	372	175	5 344
Hospital benefits (d)	46 537	28 301	10 403	9 188	6 257	2 478	103 165
Payments to public hospitals for pensioners (e)	3 819	1 325	1 059	194	606	193	7 196
Nursing home benefits	32 451	16 569	11 499	5 655	7 529	1 757	75 461
Additional nursing home benefits for pensioners	27 420	17 732	9 083	6 307	5 694	2 074	68 309
Domiciliary nursing care benefits	2 322	1 811	1 412	852	847	452	7 697
Total	148 447	91 454	42 524	29 678	27 043	8 770	347 916
NURSING HOMES ASSISTANCE ACT—							
Deficit financing of eligible organisations	16 435	9 827	7 773	9 513	5 561	2 794	51 904

(a) (i) Payments through organisations for insured patients are shown by State of registration of the organisation concerned. As there are no organisations registered in the N.T. or A.C.T., insured persons in the Territories are covered by organisations registered in the States. (ii) Figures for other Commonwealth Government payments in N.T. and A.C.T. are included with those for S.A. and N.S.W., respectively.
(b) Expenditure relating to medical services rendered prior to the introduction of Medibank on 1 July 1975, and special account advance and deficit payments since 1 July 1975.
(c) Expenditure relating to medical services rendered prior to 1 July 1975.
(d) Expenditure relating to hospitalisation prior to 1 July 1975 and to (i) insured patients in public and private hospitals prior to 1 April 1976, (ii) uninsured patients and patients treated free of charge in public hospitals prior to the dates upon which the Medibank hospital arrangements came into effect and in private hospitals prior to 1 April 1976, and (iii) special account advance and deficit payments made during 1975-76.
(e) Expenditure relating to hospitalisation prior to the dates upon which Medibank hospital arrangements came into effect.

Hospital

TABLE 70 COMMONWEALTH HOSPITAL BENEFITS AND OTHER COMMONWEALTH GOVERNMENT PAYMENTS UNDER THE NATIONAL HEALTH ACT—STATES (a)—1975-76

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Commonwealth benefits—							
Insured patients (a)	8 820	5 571	2 177	2 018	1 610	394	20 590
Uninsured patients (b)	158	56	41	3	28	5	291
Hospitalisation free of charge (b)	49	27	618	2	(c)	1	697
Pensioner patients (b)	3 819	1 325	1 059	194	606	193	7 196
Total Commonwealth benefits	12 846	6 978	3 894	2 218	2 245	593	28 774
Other Commonwealth Government payments—							
Special account advance and deficit payments	31 170	20 075	7 560	6 453	2 750	1 776	69 784
S.H.B.P. (d) private insurance benefit reimbursements	5 955	2 416	7	668	1 755	283	11 084
S.H.B.P. (d) management expenses	385	158	(c)	44	113	18	719
Total Commonwealth Government expenditure	50 356	29 626	11 462	9 382	6 864	2 670	110 360

(a) See footnote (a) (i) Table 69.
(b) Figures for the N.T. and A.C.T. for uninsured, pensioner and free of charge patients are included in those for S.A. and N.S.W., respectively.
(c) Less than $500.
(d) Subsidised Health Benefits Plan.

Hospital

TABLE 71 APPROVED HOSPITALS AND BEDS—1972 TO 1976

(Number at 30 June)

	1972	*1973*	*1974*	*1975*	*1976 (a)*
Approved hospitals—					
Public	771	771	774	780	777
Private	326	330	338	336	339
Total	1 097	1 101	1 112	1 116	1 116
Beds—					
Public	64 299	65 449	67 808	68 727	69 544
Private	14 386	15 101	16 244	16 570	17 428
Total	78 685	80 550	84 052	85 297	86 972
Beds per 1000 population	*6.1*	*6.2 r*	*6.3*	*6.3*	*6.4*

(a) Approved under the Health Insurance Act. Prior to 1976 approval was under the National Health Act.

Hospital

TABLE 72 HOSPITALS APPROVED UNDER THE HEALTH INSURANCE ACT—STATES AND TERRITORIES—1976

(Number at 30 June)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Approved hospitals—									
Public	252	159	137	73	126	22	5	3	777
Private	106	115	41	47	21	8	—	1	339
Total	358	274	178	120	147	30	5	4	1 116
Beds—									
Public	27 075	14 730	11 793	5 867	6 237	2 271	594	977	69 544
Private	5 442	5 076	2 772	2 041	1 565	486	—	46	17 428
Total	32 517	19 806	14 565	7 908	7 802	2 757	594	1 023	86 972
Beds per 1000 population	*6.8*	*5.4*	*7.2*	*6.4*	*6.8*	*6.7*	*6.0*	*5.0*	*6.4*

Nursing home

TABLE 73 COMMONWEALTH AND PRIVATE INSURANCE NURSING HOME BENEFITS PAID—1971-72 TO 1975-76

($'000)

	1971-72	*1972-73*	*1973-74*	*1974-75*	*1975-76*
Commonwealth benefits—					
Ordinary	47 639	60 233	61 155	60 627	51 286
Supplementary	22 954	24 251	24 901	25 177	21 850
Pensioner	—	8 462 (a)	25 999	64 157	68 309
Total	70 593	92 946	112 055	149 961	141 446
Private insurance benefit for insured patients	—	1 077 (a)	4 552	9 804	12 578
Total benefits paid	70 593	94 023	116 607	159 765	154 023

(a) 1 January 1973 to 30 June 1973.

Nursing home

TABLE 74 COMMONWEALTH AND PRIVATE INSURANCE NURSING HOME BENEFITS PAID—STATES AND TERRITORIES (a)—1975-76

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
Commonwealth benefits—								
Ordinary	23 967	9 438	7 667	3 501	5 158	1 312	244	51 286
Supplementary	7 260	6 022	3 729	1 961	2 369	415	92	21 850
Pensioner	27 190	17 732	9 083	6 307	5 694	2 074	230	68 309
Total	58 417	33 192	20 479	11 769	13 221	3 801	567	141 446
Private insurance benefit for insured patients (b)	3 951	4 718	1 479	1 438	704	287	—	12 578
Total benefits paid (c)	62 368	37 910	21 958	13 207	13 925	4 088	567	154 023

(a) Commonwealth benefits for the N.T. are included in those for S.A. Private insurance benefits for insured patients are shown by State of registration of the organisation concerned. As there are no organisations registered in the N.T. or A.C.T., insured persons in the Territories are covered by organisations registered in the States.
(b) Includes $24 507 private insurance benefit reimbursed under the Subsidised Health Benefits Plan.
(c) Excludes $2 300 370 special account advance and deficit payments.

Nursing home

TABLE 75 DAYS FOR WHICH COMMONWEALTH AND PRIVATE INSURANCE NURSING HOME BENEFITS WERE PAID—1971-72 TO 1975-76

('000)

	1971-72	*1972-73*	*1973-74*	*1974-75*	*1975-76*
Commonwealth benefit days—					
Ordinary (a)	16 360	17 210	17 480	17 331	14 658
Supplementary	7 651	8 084	8 302	8 400 r	7 285
Pensioner	—	5 596 (b)	15 276	14 693	12 475
Private insurance benefit days	—	638 (b)	2 421	2 392	2 076

(a) For some patients in respect of whom ordinary benefits are paid, supplementary, pensioner and private insurance benefits may also be paid.
(b) 1 January 1973 to 30 June 1973.

Nursing home

TABLE 76 DAYS FOR WHICH COMMONWEALTH AND PRIVATE INSURANCE NURSING HOME BENEFITS WERE PAID—STATES AND TERRITORIES—1975-76

('000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
Commonwealth benefit days—								
Ordinary (a)	6 849	2 697	2 191	1 000 (b)	1 476	375	70	14 658
Supplementary	2 420	2 008	1 243	654 (b)	790	139	31	7 285
Pensioner	6 056	2 170	1 812	794 (b)	1 268	323	51	12 475
Private insurance benefit days	881 (c)	497	306	188 (c)	158	47	—	2 076

(a) See footnote (a) Table 75.
(b) Figures for the N.T. are included in those for S.A.
(c) See footnote (a) (i) Table 69.

Nursing home

TABLE 77 APPROVED NURSING HOMES AND BEDS—1972 TO 1976

(Number at 30 June)

	1972	*1973*	*1974*	*1975*	*1976*
Approved nursing homes—					
Deficit financed (a)	—	—	—	189	224
Government (b)	—	84	92	97 r	96
Other (c)	—	1 152	1 108	883 r	843
Total	1 230 (d)	1 236	1 200	1 169	1 163
Beds—					
Deficit financed	—	—	—	8 271	9 739
Government	—	10 833	12 092	12 593 r	12 908
Other	—	42 583	42 328	33 892 r	32 931
Total	51 286 (d)	53 416	54 420	54 756	55 578
Beds per 1000 population	*4.0*	*4.1*	*4.1*	*4.1 r*	*4.1*

(a) Deficit financing arrangements under the Nursing Homes Assistance Act commenced on 1 January 1975. Under this Act the Commonwealth Government meets the approved operating deficits of certain voluntary non-profit nursing homes which enter into an agreement with the Government for this purpose. Nursing home benefits are not payable in respect of patients accommodated in such homes.
(b) Government homes approved under the National Health Act for the payment of nursing home benefits.
(c) Private profit and voluntary non-profit homes approved under the National Health Act for the payment of nursing home benefits.
(d) Prior to 1973, classification of nursing homes as Government or Other not applicable.

Nursing home

TABLE 78 APPROVED NURSING HOMES AND BEDS (a)—STATES AND TERRITORIES—1976
(Number at 30 June)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*N.T.*	*A.C.T.*	*Aust.*
Approved nursing homes—									
Deficit financed	68	35	35	42	22	22	—	—	224
Government	29	23	11	5	24	3	—	1	96
Other	369	197	104	82	71	18	1	1	843
Total	466	255	150	129	117	43	1	2	1 163
Beds—									
Deficit financed	3 367	1 512	1 496	1 749	1 005	610	—	—	9 739
Government	3 480	3 910	2 165	725	1 810	670	—	148	12 908
Other	17 544	4 786	4 606	2 368	2 977	572	7	71	32 931
Total	24 391	10 208	8 267	4 842	5 792	1 852	7	219	55 578
Beds per 1000 population	*5.1*	*2.8*	*4.1*	*3.9*	*5.1*	*4.5*	*0.1*	*1.1*	*4.1*

(a) See footnotes Table 77.

Nursing home

TABLE 79 APPROVED NURSING HOMES, BEDS AND TOTAL PAYMENTS MADE UNDER THE NURSING HOMES ASSISTANCE ACT—1975 AND 1976
(At 30 June)

	Units	*1975 (a)*	*1976*
Approved nursing homes—			
With approved services	*Number*	33	58
Without approved services	*Number*	156	166
Total	*Number*	189	224
Beds in nursing homes—			
With approved services	*Number*	1 962	3 616
Without approved services	*Number*	6 309	6 123
Total	*Number*	8 271	9 739
Beds per 1000 population	*Number*	*0.6*	*0.7*
Total payments (b) to nursing homes—			
With approved services	*$'000*	3 940	21 086
Without approved services	*$'000*	6 164	30 818
Total	*$'000*	10 103	51 904

(a) Deficit financing arrangements under the Nursing Homes Assistance Act commenced on 1 January 1975 and payments relate to the period 1 January 1975 to 30 June 1975.
(b) Year ended 30 June.

Nursing home

TABLE 80 PAYMENTS TO NURSING HOMES APPROVED UNDER THE NURSING HOMES ASSISTANCE ACT—STATES—1975-76

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Payments towards operating costs (a) of nursing homes—							
With approved services	9 291	4 481	1 397	3 863	1 459	546	21 037
Without approved services	7 102	5 325	6 354	5 625	4 086	2 236	30 727
Payments for replacements of assets (b) of nursing homes—							
With approved services	16	6	7	18	1	2	49
Without approved services	26	16	15	8	16	11	91
Total payments to nursing homes—							
With approved services	9 307	4 486	1 404	3 881	1 460	547	21 086
Without approved services	7 128	5 341	6 369	5 632	4 102	2 246	30 818
Total all nursing homes	16 435	9 827	7 773	9 513	5 561	2 794	51 904

(a) Includes advance payments for 1975-76 and adjustments for 1974-75.
(b) Payments for replacement of assets over $400 are paid separately from payments towards operating costs.

Domiciliary nursing

TABLE 81 APPLICATIONS RECEIVED FOR DOMICILIARY NURSING CARE BENEFITS, APPROVED BENEFICIARIES, DAYS AND BENFITS PAID—1972-73 TO 1975-76

	Units	*1972-73*	*1973-74*	*1974-75*	*1975-76*
Applications received (a)	*Number*	13 153 (b)	10 776	10 830	9 964
Approved beneficiaries at 30 June	*Number*	7 193	9 098	10 273	10 481
Days for which benefits paid	*'000*	511 (b)	3 154	3 556	3 849
Total benefits paid	*$'000*	1 022 (b)	6 309	7 112	7 697

(a) Includes applications approved, rejected, cancelled or awaiting decision.
(b) 1 March 1973 to 30 June 1973.

Domiciliary nursing

TABLE 82 APPLICATIONS RECEIVED FOR DOMICILIARY NURSING CARE BENEFITS, APPROVED BENEFICIARIES, DAYS AND BENEFITS PAID—STATES AND TERRITORIES—1975-76

	Units	*N.S.W. (a)*	*Vic.*	*Qld*	*S.A. (a)*	*W.A.*	*Tas.*	*Aust.*
Applications received (b)	*Number*	2 998	2 404	2 076	1 097	833	556	9 964
Approved beneficiaries at 30 June 1976	*Number*	3 083	2 426	1 973	1 207	1 181	611	10 481
Days for which benefits paid	*'000*	1 161	906	706	426	424	226	3 849
Total benefits paid	*$'000*	2 322	1 811	1 412	852	847	452	7 697

(a) Figures for the N.T. and A.C.T. are included in those for S.A. and N.S.W., respectively.
(b) See footnote (a) Table 81.

Home nursing organisations

The Home Nursing Subsidy Scheme, which came into operation on 1 January 1957, was designed to assist in the extension of home nursing activities, either by the expansion of existing organisations or the formation of new ones. To be eligible to receive the subsidy, an organisation must provide a home nursing service, be non-profit making, employ registered nurses and be in receipt of assistance from a State government, a local government body or other authority established under a State Act. The amount of subsidy paid by the Commonwealth Government is limited to the assistance received from the State and/or local government.

Information relating to the number of nurses employed by home nursing organisations and the number of visits made by those nurses has been derived from the quarterly claim forms submitted to the Department by the organisations.

TABLE 83 HOME NURSING ORGANISATION STATISTICS—STATES—1970-71 TO 1974-75

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Total*
Number of home nursing organisations at 30 June							
1971	52	31	7	1	4	12	107
1972	63	34	7	1	4	15	124
1973	70	43	8	1	5	17	144
1974	87	57	8	1	4	18	175
1975	90	59	8	1	3	18	179
Visits made ('000)-year ended 30 June							
1971	706	567	574	197	355	66	2 465
1972	768	615	651	211	420	71	2 736
1973	805	633	692	229	439	100 r	2 898 r
1974	939	847	946	270	511	131	3 644
1975	1 052	938	1 058	324	561	158	4 090
Visits made per 1000 mean population—year ended 30 June							
1971	155	163	317	168	351	169	198
1972	165	174	352	179	401	181	216
1973	171	177	365	192	413	253 r	226 r
1974	198	234	486	223	471	328	280
1975	220	256	532	263	503	391	310
Average number of nurses employed (a)—year ended 30 June							
1971	248	268	178	63	118	26	901
1972	270	291	197	68	133	31	990
1973	286	323	230	71	146	35	1 091
1974	319	363	261	86	161	43	1 233
1975	380	424	303	109	179	49	1 449

(a) Federal subsidies to home nursing organisations are based on the number of nurses employed over and above the number employed at 30 September 1956 in the case of organisations existing at that date, and on the total number of nurses employed by home nursing organisations formed after that date. The actual numbers of nurses employed at 30.9.56 were: N.S.W., 42; Vic., 83; Qld, 16; S.A., 38; W.A., 29; Tas., 2. Total: 210.

Medical

TABLE 84 COMMONWEALTH AND PRIVATE INSURANCE MEDICAL BENEFITS PAID AND OTHER COMMONWEALTH GOVERNMENT PAYMENTS UNDER THE NATIONAL HEALTH ACT—STATES (a)—1975-76

($'000)

	N.S.W.	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Commonwealth benefits	27 285	21 988	7 111	6 469	5 182	1 501	69 535
Other Commonwealth Government payments							
Special account advance and deficit payments	5 404	1 417	921	233	264	86	8 326
S.H.B.P. private insurance benefit reimbursements	1 117	750	191	208	250	46	2 562
S.H.B.P. management expenses	130	88	22	32	41	8	321
Total Commonwealth Government expenditure	33 936	24 243	8 245	6 942	5 737	1 641	80 744
Private insurance benefits (b)—							
Excluding ancillary	29 388	24 195	7 375	5 602	4 291	1 193	72 043
Ancillary	470	525	138	333	127	46	1 639
Total	29 857	24 720	7 512	5 935	4 418	1 239	73 682

(a) See footnote (a) (i) Table 69.
(b) Includes private insurance benefits reimbursements paid under the Subsidised Health Benefits Plan.

Medical

TABLE 85 MEDICAL SERVICES RENDERED (a) TO CONTRIBUTORS (AND DEPENDANTS) TO REGISTERED MEDICAL BENEFITS ORGANISATIONS (b) FOR WHICH MEDICAL BENEFITS WERE PAID UNDER THE NATIONAL HEALTH ACT—STATES AND TERRITORIES (c)—1975-76

	Units	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Matched services (d)—								
Services rendered	*'000*	5 862	5 030	1 829	1 345	984	301	15 351
Total cost of services	*$'000*	67 534	54 244	18 467	13 063	10 275	2 939	166 522
Average cost per service	*$*	11.52	10.78	10.10	9.71	10.44	9.77	10.85
Percentage of cost met by—								
Commonwealth benefit	%	40.0	40.0	38.4	44.4	43.6	43.0	40.5
Private insurance benefit	%	43.5	44.5	39.9	42.9	41.7	39.8	43.2
Insured member	%	16.5	15.4	21.7	12.7	14.7	17.2	16.3
Unmatched services rendered (e)	*'000*	196	261	64	227	204	54	1 006
Percentage of G.P. consultations (f) to total number of matched and unmatched services	%	49	55	62	45	51	49	52

(a) Before 1 July 1975.
(b) Fee for service organisations only.
(c) See footnote (a) (i) Table 69.
(d) A matched service is one for which both a Commonwealth and private insurance benefit are paid.
(e) An unmatched service is one for which either no Commonwealth benefit or no private insurance benefit is paid.
(f) General practitioner surgery consultations and home visits.

Medical

TABLE 86 MEDICAL SERVICES RENDERED (a) UNDER THE PENSIONER MEDICAL SERVICE AND PAYMENTS TO DOCTORS FOR THOSE SERVICES—STATES AND TERRITORIES (b)—1975-76

	Units	*N.S.W.*	*Vic.*	*Qld*	*S.A.*	*W.A.*	*Tas.*	*Aust.*
Medical services—								
Surgery	*'000*	367	257	161	95	74	34	988
Domiciliary	*'000*	104	89	39	32	17	8	289
Total	*'000*	470	346	200	127	90	42	1 276
Payments to doctors	*$'000*	1 963	1 472	822	539	372	175	5 344

(a) Before 1 July 1975.
(b) Figures for the N.T. and A.C.T. are included in those for S.A. and N.S.W., respectively.

Health Insurance Commission

TABLE 87 PAYMENTS BY THE HEALTH INSURANCE COMMISSION UNDER THE HEALTH INSURANCE ACT—STATES AND TERRITORIES—1975-76 p

	Units	*N.S.W.*	*Vic.*	*Qld*	*S.A. (a)*	*W.A.*	*Tas.*	*A.C.T.*	*Aust.*
Payments in respect of public hospitals (b)—									
$16 per day payments—									
Days	*'000*	3 794	2 700	1 608	1 354	1 104	465	268	11 293
Amount	*$'000*	60 704	43 203	25 731	21 660	17 661	7 440	4 295	180 694
Balance payments (c)	*$'000*	128 504	116 646	44 840	54 285	48 302	14 233	9 239	416 048
$16 per day payments to private hospitals—									
Days	*'000*	855	1 082	575	473	322	114	11	3 431
Amount	*$'000*	13 675	17 316	9 192	7 574	5 151	1 818	170	54 896
Section 34—payments to private hospitals	*$'000*	—	—	—	115	—	—	—	115
Health program grants payments	*$'000*	2 309	2 096	169	2 011	118	324	45	7 072
Medical benefits payments (d)	*$'000*	263 781	162 098	75 995	57 479	42 110	14 608	13 400	629 471

(a) Includes claims and services originating in N.T.
(b) Includes payments made before 26 May 1976. It was announced on 26 May 1976 that the Hospital Agreements were considered by the Commonwealth to be invalid and the Health Insurance Commission was no longer authorised to make payments in respect of public (recognised) and private hospitals in the States from that date. However, the proclamation of the *States Grants (Hospital Operating Costs) Act* 1976 on 10 June 1976 enabled the Health Insurance Commission to resume the $16 per day payments to private hospitals, and payments under Section 34 of the Health Insurance Act to private hospitals, in the States.
(c) Balance paid to States and Territories to bring payments in respect of public hospitals to the level of 50 per cent of the net operating costs of these hospitals.
(d) Includes advances to Cash Payment Centres.

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Appendix 3— Directory of Senior Officers

CENTRAL OFFICE

Director-General
Gwyn Howells, M.D., B.S., F.R.C.P. (Lond.), F.R.A.C.P.

Deputy Directors-General
C. P. Evans, M.B., B.S., D.T.M., F.R.A.C.P., M.R.C.P. (Lond.)
C. A. Nettle, M.B.E., LL.B., F.A.S.A.

Quarantine Division

First Assistant Director-General
R. H. Searle, B.Ec., Dip.Com., A.A.U.Q., F.A.C.S., A.A.S.A. (Acting)

GENERAL QUARANTINE BRANCH

Assistant Director-General
S. J. Ivil, M.B., Ch.B., M.R.A.C.G.P. (Acting)

Special Project
F. S. D. Thompson, M.R.C.S., L.R.C.P., D.P.H.

ANIMAL QUARANTINE BRANCH

Assistant Director-General
I. D. Cameron-Stephen, M.R.C.V.S.

Senior Veterinary Officers
H. R. Piesley, B.V.Sc., M.R.C.V.S., M.A.C.V.Sc., Dip.Pub.Admin.
N. M. Noble, M.R.C.V.S., D.T.V.M.

PLANT QUARANTINE BRANCH

Assistant Director-General
J. R. Morschel, B.Sc.Agr., H.D.A.

Principal Plant Quarantine Officers
K. W. Dillon, B.Sc.
L. Smee, B.Sc.Agr.

Therapeutics Division

First Assistant Director-General
D. de Souza, M.B., Ch.B., F.R.C.P. (Edin.), M.R.C.S. (Eng.)

PHARMACEUTICAL BENEFITS BRANCH

Assistant Director-General
A. E. Shields, Ph.C., M.P.S.

Directors
N. J. Clarke, A.A.U.Q.
W. E. Crook, Ph.C., M.P.S.
A. J. McColl

THERAPEUTIC GOODS BRANCH

Assistant Director-General
R. E. M. Wilson, Ph.C.

Principal Pharmacist
P. W. Petterson, Ph.C.

Senior Executive Officer
J. C. Skene

Drug Evaluation Section

Senior Adviser in Clinical Pharmacology
R. L. Hodge, M.D., B.S., F.R.A.C.P.

Advisers in Clinical Pharmacology
J. M. Crawford, B.Sc., Ph.D., M.B., B.S.
B. C. Ashley, M.B., B.S.

Senior Medical Officer
H. R. K. Arora, M.B., B.S., M.D., F.I.C.A.

Drugs of Dependence Section

Director
D. W. Murdoch, Ph.C.

Public Health Division

First Assistant Director-General
W. A. Langsford, C.St.J., M.B., B.S., D.P.H., D.T.M. & H., F.A.C.M.A.
Senior Adviser in Mental Health
L. R. H. Drew, B.Sc., M.B., B.S., D.P.M., M.A.N.Z.C.P. (Acting)
Adviser in Epidemiology
J. W. Donovan, M.B., B.S., Ph.D., M.F.C.M.

ABORIGINAL HEALTH BRANCH

Assistant Director-General
R. G. Walton, B.Com.
Senior Medical Officer
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