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# NATIONAL IMMUNISATION STRATEGY

APRIL 1993

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National Health and Medical Research Council

NHMRC

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# Panel on a National Immunisation Strategy

## Panel membership

| | |
|---|---|
| Dr Henry Kilham (Chairman) | Head, Medical Team, Department of Medicine, The Children's Hospital, Sydney |
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## Panel terms of reference

- To review existing arrangements for the provision and evaluation of immunisation services.
- To review existing funding approaches at present in operation in Australia.
- To suggest a national, efficient and effective immunisation scheme.
- To advise and report on the implementation and costing of such a national scheme.
- To report to the Communicable Diseases Standing Committee.

NOTE: The Panel considered only organised childhood immunisation programs and wherever immunisation is used in this report 'mass' or 'routine' immunisation is meant. Immunisation as an ad hoc response to known risk of exposure was not the subject of the Panel's considerations.

## Panel work program

The Panel met on the 21 October 1991, 8 April 1992, and 17 August 1992, and held teleconferences on 1 June 1992, 10 November 1992, 25 November 1992 and 23 March 1993.

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# Executive summary

## Major findings

Like most developed countries Australia has long-standing mass childhood immunisation programs against poliomyelitis, pertussis (whooping cough), diphtheria, tetanus, measles, mumps and rubella. These programs, which are mainly administered by State/Territory governments, have been largely successful in eliminating poliomyelitis. Although the immunisation programs have also significantly reduced the other preventable diseases, data indicate that outbreaks are still occurring at unacceptably high levels in Australia:

- during 1991 alone there were 2,352 reported instances of vaccine preventable disease. Whooping cough and measles are of particular concern, having caused the death of 57 Australian children between 1980 and 1990.

These data demonstrate that there is room for improvement in the existing childhood immunisation programs. Moreover, the data probably understate the incidence, by up to 90% for some diseases, because notification procedures are not uniform across Australia and cases of measles, mumps, rubella and whooping cough are often undiagnosed or unnotified.

The incidence of preventable disease is largely dependent upon rates of immunisation among children. Although questions have been raised about the methods, data collected in the 1989–90 National Health Survey[1] conducted by the Australian Bureau of Statistics indicate that:

- only 53% of Australian children aged 0–4 years are fully immunised against all the above diseases;
- another 30% of children are partly immunised but have not completed the full course of immunisations;
- nearly 20% are either totally unimmunised or the immunisation status is unknown; and
- Australia's coverage rates compare unfavourably with other countries.

Coverage levels differ between States/Territories, between diseases, between socio-economic groups and according to children's ages:

- the **ACT** has the highest coverage at 64% of children fully immunised and the Northern Territory has the lowest at 46%.
- whooping cough has the lowest national coverage rate of all vaccines, probably due to misinformation about likely side effects of the vaccine; and
- infants and children from lower socio-economic groups and ethnic minorities are least likely to be fully immunised.

While it is difficult to quantify the cost of these vaccine preventable diseases there is no doubt that poor immunisation coverage rates lead to unnecessary health care expenditure and other economic costs.

---

1 Immunisation data collected through the Australian Bureau of Statistics National Health Survey is based on parent held immunisation records and parent recall. In situations where immunisation records are held at Community health centres rather than by parents this would result in an underestimate of immunisation rates. This is the case with Aborigines in rural areas of the Northern Territory.

Data indicating poor coverage among special needs groups demonstrate that immunisation is a national social justice issue. Raising coverage rates, with particular emphasis on special needs groups, should become a national priority.

In addition, there are significant administrative issues to be addressed. Funding arrangements are fragmented between the three levels of government and the private sector, giving rise to a lack of accountability, poor data on expenditure and significant potential for cost shifting between the levels of government and from the public to private sectors. Inequities in funding between Stated Territories are also a matter for concern.

On the information available to the Panel, the current level of public resourcing for childhood immunisation appears sufficient to immunise every Australian child without cost to parents. However, there is evidence of inefficiency in the existing delivery systems which means that this is not currently being achieved. Problems identified included:

- vaccine purchasing is unco-ordinated between States/Territories, with wide variations in the amounts paid for vaccines;
- vaccine prices are inflated due to monopoly of supply in Australia;
- vaccine wastage rates are above World Health Organization (WHO) recommendations;
- vaccine potency is reduced due to failures in the cold-chain;
- vaccine delivery networks are fragmented with poor co-ordination between public and private service providers;
- there is confusion about funding responsibilities;
- there are poor record keeping, monitoring and recall systems; and
- there are poor public and professional education programs.

These are considered to be matters for priority action on a nationally co-ordinated basis. The outcome should be:

- improved vaccine purchasing procedures, including bulk competitive tendering;
- improved protocols for vaccine handling to reduce wastage;
- better co-ordination between public and private providers;
- clear identification of public resources for immunisation under the auspices of a National Childhood Immunisation Agreement;
- improved recording and monitoring systems, including reminders for parents when vaccinations are due;
- improved education programs for health professionals; and
- national monitoring and evaluation of performance.

No single level of government or service delivery sector is responsible for the current situation. Accordingly, improvements will only be possible with co-operation between Commonwealth, States/Territories, local government, the private sector, health professionals and consumers.

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## Recommendations

**SOME OF THESE RECOMMENDATIONS (e.g. 6,7,9,14) COULD BE IMPLEMENTED IMMEDIATELY WITH EXISTING STRUCTURES; OTHERS WOULD NEED TO BE PART OF THE LONGER-TERM PLAN.**

## National goals

On the basis of its major findings the following recommendations for childhood immunisation are proposed:

### Recommendation 1

That all States and Territories immunise at the appropriate age, without charge, all children resident in Australia in line with the National Health and Medical Research Council (NHMRC) recommended schedule against diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps, rubella and *Haemophilus influenme* type b (Hib). The only exceptions to universal immunisation should be cases where there are clear medical contraindications to immunisation or in cases where parents express clear conscientious objection.

### Recommendation 2

That the Commonwealth and States/Territories, in consultation with local government and the private sector, develop and enter into a National Childhood Immunisation Agreement to give effect to a nationally co-ordinated childhood immunisation program in Australia. This should be facilitated through the establishment of an Immunisation Advisory Committee.

### Recommendation 3

That all States and Territories work steadily towards the achievement of the national goal by monitoring progress against a series of immunisation coverage targets to the year 2000:

By 1994 — achieve 90% coverage of children of school entry age for diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps and rubella;

— and 90% coverage of girls under 17 years of age for rubella;

By 1996 — achieve greater than 95% coverage of children of school entry age for diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps and rubella; and

— achieve 90% coverage of girls and boys under 17 years of age for measles, mumps and rubella;

By 2000 — achieve greater than 90% coverage of children at 2 years of age for all diseases specified in the schedule;

— near universal coverage of children of school entry age for diphtheria, tetanus, pertussis, polio, measles mumps and rubella; and

— near universal coverage of girls and boys under 17 years of age for measles, mumps and rubella.

### Recommendation 4

That each State and Territory adopts a schedule for childhood immunisation compatible with the NHMRC schedule set out at Attachment A.

### Recommendation 5

That the States and Territories improve the efficiency, quality, accessibility and accountability of the existing childhood immunisation programs.

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## Strategies

Realisation of these National Goals will require the implementation of a number of important initiatives. The Commonwealth, States and Territories must clearly define their roles in the areas of policy development, provision of funding, administration of funding, co-ordination and evaluation of the immunisation program. In addition, funding arrangements must be rationalised. The pool of public resources allocated to meet the targets for childhood immunisation must be identified. As stated under Recommendation 2, this should be facilitated through the establishment of an Immunisation Advisory Committee consisting of representatives of the Commonwealth and State/ Territory Health Authorities, immunisation providers and consumer groups.

**Recommendation *6* ***

Promote 'on-the-spot' immunisation, via general practitioners, hospitals and as part of the National Health Promotion campaign on immunisation.

**Recommendation *7* ***

Encourage opportunistic simultaneous administration ton the same day, at separate sites) of all inactivated vaccines appropriate to age and previous immunisation status. (NOTE: This does not infer the 'mixing' of separate vaccines in the same syringe).

**Recommendation *8***

Develop targeted uniform educational material and programs for parents.

**Recommendation *9* ***

Provide regular updates and advice to immunisation providers.

**Recommendation 10**

Tie funding to specific conditions such as provision of surveillance data for incidence of vaccine preventable diseases and immunisation coverage rates.

**Recommendation 11**

Improve surveillance and reporting mechanisms for immunisation coverage according to age; incidence of vaccine preventable disease; and outbreaks of vaccine-preventable disease.

**Recommendation 12**

Improve .mechanisms for recording immunisations including records held by service delivery agencies and records held by families.

**Recommendation 13**

Develop a multilateral agreement to a cold-chain standard including mechanisms for cold-chain surveillance and monitoring.

**Recommendation 14 ***

Legislation should be introduced requiring parents to present record of immunisation status when enrolling children in child-care facilities and schools.
(NOTE. Already achieved in NSW and partially achieved in ACT and Victoria).

**Recommendation 15**

Develop recall systems appropriate to local communities to remind parents when children's immunisations are due.

* These recommendations could be implemented immediately with existing structures.

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# Immunisation in Australia

## History

Australia-has had immunisation programs since the 1920s and our past performance in this important preventive activity has been among the best in the world. Australian governments were among the first to recognise the public health benefits of mass immunisation and the value of public financial investment in this field.

Like most developed countries, Australia's long-standing immunisation programs have eliminated indigenous poliomyelitis. In addition, there have been marked decreases in the incidence of tetanus and diphtheria. However, outbreaks of measles, pertussis and rubella continue, although the actual numbers of cases and deaths have been considerably reduced as a result of the programs.

Of the vaccine preventable diseases, measles has been the most important. In the last decade in Australia measles alone caused more childhood deaths than all of the other vaccine preventable diseases combined.

Although Australia's past performance is commendable, there remains room for improvement. Improving immunisation coverage should be the prime goal of the 1990s.

A brief description of the major vaccine preventable diseases and an outline of the history of immunisation in Australia is included at attachment B.

## Incidence of vaccine preventable disease

Vaccine-preventable diseases continue to pose an unacceptable hazard for Australian children who are not fully immunised.

In 1991 there were 2,352 notifications of vaccine preventable diseases, with poliomyelitis the only disease not notified in that year. In addition, there were 549 notified cases of meningitis (Hib) infection, a disease which is now vaccine preventable and especially dangerous to infants. Between 1980 and 1990 vaccine preventable diseases were the recorded cause of death for 86 Australian children.

However, the statistics understate the problem because vaccine preventable diseases are frequently treated at local level without notifying health authorities. Evidence suggests that the instances of certain diseases may be understated by as much as 90%. This may be particularly the case for measles, pertussis and rubella, where many cases may be undiagnosed and where hospitalisation is often unnecessary.

## The costs of vaccine preventable disease

Despite long-standing public health programs in immunisation, the population is generally ill-informed about the dangers and costs of vaccine preventable diseases. Although there is limited understanding of the life threatening nature of childhood poliomyelitis and diphtheria, the potential long term health problems from measles and rubella, for example, are not understood by many parents.

The consequences of poor community understanding of the importance of immunisation and low immunisation rates add unnecessary costs to Australia's rising health care expenditure. Because of lack of available data for Australia no attempt has been made to cost the impact of vaccine preventable diseases on the economy as a whole e.g. lost productivity due to parents' loss of work time, long term cost of learning impairment due to measles and cost of care for birth defects caused by rubella. Nevertheless, it was considered that these costs would be significant and of serious concern.

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## Rates of childhood immunisation

The 1989–90 National Health Survey of Children's Immunisation reported that only 53% of Australian children aged 0–6 years of age had completed all doses of all vaccines appropriate to their ages as recommended by the NHMRC.

With almost another 30% of children being only partly immunised, nearly 20% of all Australian children were shown to be either completely unimmunised against the conditions of diphtheria, tetanus, pertussis, measles and mumps or to have an unknown immunisation status.

The survey also showed that coverage levels differed widely between diseases as the following percentages show:

| | |
|---|---|
| diphtheria and tetanus | 86% |
| pertussis | 71% |
| poliomyelitis | 72% |
| measles | 86% |
| fully immunised | **53%** |

Coverage levels also varied with children's ages with fewer children aged less than one year being fully immunised than any of the other age groups.

The data show significant lack of cover in 6–12 month old children and lack of follow up booster doses for older children. In children 1–4 years of age there was a 21% dropout for completion of the pertussis schedule. Substitution of combine diphtheria and tetanus vaccine (CDT) for combined diptheria, tetanus and pertussis vaccine (DTP) due to inappropriate concern for alleged adverse effects of the pertussis component of DTP, was a major cause of low coverage rates for pertussis.

The proportion of children fully immunised also varied between States and Territories.

In Victoria, it is a requirement (*Health (Immunisation) Regulations 1990*), that all students enrolling at primary school present a certificate which shows their immunisation status.

Each year the Victorian Department of Education conducts a mid-year census of all government schools. The data provided cover only government schools and exclude those schools without any preparatory preschool enrolments. It is not possible to determine which immunisations were missed on the incomplete certificate, or the reasons why the full course of immunisation was not given.

The results of the census indicated that 31.7% of the schools reported that 100% of their prep/ preschool students were fully immunised (compared with 30.3% in 1991). In 1992 schools in the rural regions were more than twice as likely as urban schools to have 100% of their prep schools fully immunised.

Almost 29% of schools reported that less then 80% of students were fully immunised, indicating a potential risk for outbreaks to occur within those schools.

It is estimated that Australia's vaccine coverage rates are now below the reported rates of many other developed countries and below some developing countries for example Tanzania, Iran, Colombia, and Tunisia.

## Children most at risk

The 1989–90 National Health Survey of Children's Immunisation conducted by the Australian Bureau of Statistics supports the view that the children most likely to have an incomplete immunisation profile, and thus most at risk of contracting a preventable disease, are those:

- from families with low income;
- from families with unemployed parent(s);
- with parents of lower occupational status;
- with parents who lack post-secondary educational qualifications;
- from single parent families;

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- from immigrant families (especially if recently arrived);
- from Aboriginal families; and
- living in rural and remote locations.

Immunisation is therefore a social justice issue. Lower socio-economic and minority groups appear to be those missing out on their entitlement to public health programs thus placing the children of these groups at significant unnecessary risk.

## Improving immunisation rates – problems and solutions

Improved immunisation compliance is vital to reducing the incidence of vaccine preventable disease in Australia. To improve immunisation rates a number of problems must be overcome. A summary of these problems and their solutions is presented in the table below. (Expansion of these solutions can be found in Section 5 of this report).

| *Problems* | *Solution* |
|---|---|
| • Parental complacency and apathy, resulting in part from a lack of experience with childhood diseases such as poliomyelitis or diphtheria; | • Develop targeted education programs. e.g. as part of antenatal classes.<br>• Introduce legislation requiring parents to present records of immunisation status when enrolling children in child-care programs and schools. |
| • Lack of follow-up where children fail to present for primary or booster immunisations; | • Recall/remind parents when children's vaccinations are due.<br>• Develop and distribute a child health record. |
| • Lackof persuasive public information about he need for immunisation; | • Develop strategies to raise community awareness e.g. targeted information campaigns. |
| • Inaccurate advice to medical practitioners and hence to the public on the contraindications to immunisation; | • Provide regular updates and advice to immunisation providers. |
| • Lack of informotion to health care workers on he extent of mortality and morbidity associated with vaccine preventable disease and the safety of current vaccines; | • Improve education programs. |
| • Failure by health care providers to check immunisation status at every health care contact and to give any needed immunisations; | • Develop incentives for GPs and public hospitals to undertake opportunistic immunisations.<br>• Immunisation status to be checked at every health care encounter and needed vaccinations administered.<br>• Promote 'on-the-spot' immunisation as part of the national health promotion campaign on immunisation. |
| • Lack of accountability for achieving minimum rates of immunisation; | • Tie funding to specific conditions such as the provision of surveillance data on immunisation coverage. |
| • Lack of reliable information on immunisation rates; | • Improve mechanisms for recording immunisations including records held by service delivery agencies and records held by families. |
| • Problems with vaccine storage and delivery systems; | • Multilateral agreement to a cold-chain standard<br>• Develop of mechanisms for cold-chain surveillance and monitoring to check compliance with agreed standard. |

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| *Problems* | *Solution* |
|---|---|
| • Poor co-ordination of service delivery mechanisms; | • Development of central management team to improve lines of communication and implement uniform policy. |
| • Some vaccines not provided free to parents; | • Increase funding for National Immunisation Programs ensuring that these are tied to specific conditions. |
| • Conscientious objection to immunisationin less than 2% of cases. | • Improve education programs. |

## Vaccines

There is a wide Variation in the prices States/Territories pay for vaccines even though many of the vaccines are purchased by each State/Territory from the same suppliers. Responses to a questionnaire circulated in late 1991 revealed the following price variations for vaccines:

*Table: Range of vaccine prices in Australia 1991*

| Vaccine | Highest Price | Lowest Price |
|---|---|---|
| DTP | $4.05 | $3.05 |
| CDT | $3.40 | $2.85 |
| OPV (10 doses) | $3.55 | $2.60 |
| MMR | $5.09 | $3.14 |

Some vaccines are only available in Australia from one supplier. This monopoly forces prices in Australia well above prices in other countries for some vaccines.

More efficient purchasing mechanisms, involving bulk tendering and greater competition among suppliers, could result in significant savings in the costs of vaccine purchase. This could be achieved through the establishment of a national vaccine tendering system, organised as a consortium of States/Territories and the Commonwealth.

If States/Territories were able to purchase vaccines at the lowest prices shown above, the Panel estimates potential national savings for the cost of vaccines of over 25%, up to $2m per annum.

The effectiveness of any immunisation program depends to a large extent on the quality and effectiveness of the vaccines administered. Many vaccines, like perishable foods, require very careful handling to ensure the quality of the product. Without adequate refrigeration and careful control of shelf-life the vaccines' capacity to induce immunity may be impaired or the vaccine may become useless.

## Funding mechanisms

Mass childhood immunisation was not always a sole State/Territory funding responsibility. Prior to 1988 the Commonwealth supplied measles, mumps, poliomyelitis, rubella, hepatitis B, CDT and DTP vaccines free of charge to States/Territories for childhood immunisation under sections 9B and 100 of the *National Health Act 1953.*

Responsibility for immunisation programs was transferred to the States and Territories in July 1988. The details of these arrangements have been interpreted variously by Commonwealth and State/ Territory health authorities.

This has resulted in variations across Australia in implementation of the national immunisation program.

Arrangements for funding immunisation programs should be renegotiated through the Australian Health Ministers' Advisory Council (AHMAC).

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The Commonwealth continues to subsidise individual private consultations involving childhood immunisation through the Medicare Benefits Schedule (MBS) and the private purchase of vaccines through the Pharmaceutical Benefits Schedule (PBS). The best estimate of this Commonwealth contribution to childhood immunisation in 1990–91 was:

- MBS — $16.4m (source HHCS, based on data provided by the 1990–91 survey of morbidity and treatment in Australian general practice of children 4 years of age and younger); and
- PBS — $1.8m (source HHCS).

Estimates of State/Territory expenditure determined from State/Territory responses to a survey on immunisation for 1990–91 and can be found at Attachment C.

Because of these complex funding and delivery arrangements it is difficult to estimate total expenditure on childhood immunisation from all sources. Nevertheless, based on the information available from States/Territories and the Commonwealth Department of Health, Housing and Community Services (HHCS), total public spending on immunisation is in the order of $30.4m pa:

- 85% of this total public expenditure comes from Commonwealth taxation revenues, and 14% comes from revenue raised by States/Territories;
- 40% ($11.9m) of total public expenditure is directly administered by the States/Territories for the conduct of immunisation programs and 60% ($18.2m) is administered by the Commonwealth direct to health professionals and the community through the MBS and PBS.

There are no data on private out-of-pocket expenditure on consultations associated with childhood immunisation, i.e. Medicare gap payments. However, the general public's contribution to childhood vaccine costs purchased under the PBS in 1990–91 was an estimated $0.246m (source HHCS).

The total cost of vaccine requirements for a State/Territory, or for Australia as a whole, may be estimated from the number of births, the immunisation schedule, vaccine prices and coverage levels.

Based on the costing model at Attachment D and using the highest price paid per dose of vaccine, approximately $15.1m should be sufficient to purchase enough vaccine to immunise every Australian child up to 15 years of age in accordance with the NHMRC recommended immunisation schkdule and without a requirement for parental contribution. This figure does not include an allowance for vaccine wastage.

## Service delivery

As previously stated, in theory State/Territory governments were given full funding responsibility for mass immunisation programs and as a consequence responsibility for implementing childhood immunisation programs.

This arrangement has resulted in a number of inequities between States and Territories. There also appears to be fragmentation in the delivery of immunisation programs. Available data support the notion that there is a complex delivery system which lacks co-ordination. The ABS survey indicated that about 50% of children receive immunisation exclusively from the private sector i.e. vaccine is purchased by the parents on prescription and administered in private consultation with a GP.

The remaining 50% received immunisation from a mix of private and public sectors. For example, the primary course delivered in a public clinic and boosters delivered by a GP or the full schedule delivered by a GP with vaccine supplied by the State/Territory free of charge.

It is this fragmentation of service delivery that makes surveillance of immunisation programs difficult. In addition, many parents are likely to be confused about whether childhood immunisation is a matter for private consultation with their GP or a matter for public health clinics operated by States/Territories.

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# A National approach for the future

There is little debate in the public health arena about the value of mass immunisation. The overwhelming evidence of opinion is that:

- it is relatively inexpensive;
- it is cost effective compared to the costs of morbidity and mortality from vaccine preventable diseases;
- it is safe;
- it is accessible and easy to administer; and
- it does not require major capital investment and complex infrastructure.

Nevertheless, effective immunisation programs require a commitment to achieve quality delivery and high coverage levels, and must be well organised. Without these qualities immunisation programs fail to achieve high levels of population immunity and will not control vaccine preventable diseases.

All levels of government, the private sector and families need to take part in new strategies to improve childhood immunisation coverage rates. The most urgent need identified was a national commitment to the goals of childhood immunisation and targets against which future performance may be measured.

## National goals

It would be unrealistic to aim for eradication of all vaccine preventable disease in Australia. Not all vaccines provide complete immunity and Australia's high rate of tourism and immigration means that many people coming to Australia may carry infections. In preference to a disease eradication goal, disease control and a child resident population immunisation goal would be more realistic.

A number of achievable goals are recommended.

### Age appropriate immunisation

All States and Territories should immunise at the appropriate age, without charge, all children resident in Australia in line with the NHMRC recommended schedule against diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps, rubella and *Haemophilus influenzae* type b (Hib). The only exceptions to universal immunisation should be cases where there are clear medical contraindications to vaccination or in cases where parents express clear conscientious objection.

### National Childhood Immunisation Agreement

The Commonwealth and States/Territories, in consultation with local government and the private sector, should develop and enter into a National Childhood Immunisation Agreement to give effect to a nationally co-ordinated childhood immunisation program in Australia. This should be facilitated through the establishment of an Immunisation Advisory Committee.

### Immunisation coverage targets

All States and Territories should work steadily towards the achievement of the national goal by monitoring progress against a series of immunisation coverage targets to the year 2000:

By 1994 — achieve 90% coverage of children of school entry age for diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps and rubella;

— and 90% coverage of girls under 17 years of age for rubella;

By 1996 — achieve greater than 95% coverage of children of school entry age for diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps and rubella; and

— achieve 90% coverage of girls and boys under 17 years of age for measles, mumps and rubella;

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By 2000 — achieve greater than 90% coverage of children at 2 years of age for all diseases specified in the schedule;

— near universal coverage of children of school entry age for diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps and rubella; and

— near universal coverage of girls and boys under 17 years of age for measles, mumps and rubella.

**Immunisation Schedule**

Each State and Territory should adopt a schedule for childhood immunisation compatible with the NHMRC schedule set out at Attachment A.

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# Recommendations — a format for a national immunisation agreement

Realisation of these national goals will require the implementation of a number of important initiatives. The Commonwealth and States/Territories must clearly define their roles in the areas of policy development, provision of funding, administration of funding co-ordination and evaluation of the immunisation program. In addition, funding arrangements must be rationalised. The pool of public resources allocated to meet the targets for childhood immunisation needs to be identified. As stated under Recommendation 2, this should be facilitated through an Immunisation Agreement and the establishment of an Immunisation Advisory Committee consisting of representatives of the Commonwealth and State/Territory health authorities, immunisation providers and consumer groups.

## Roles and responsibilities

The Commonwealth and the States/Territories should share the responsibility for:

- public funding of a national childhood immunisation program:
- all childhood immunisation resources contributed by the Commonwealth and States/Territories to the national program should be clearly identifiable in the interests of accountability for the agreement.

States/Territories should have sole responsibility for:

- administering the pool of public funding;
- preparing immunisation delivery plans; and
- arranging the delivery of mass childhood immunisation, with flexibility to vary delivery according to local needs and an assessment of the costs of various delivery mechanisms. This may include involvement of the private sector where this is considered appropriate. Service outlets could include public health clinics, local government, hospitals, private practitioners.

The Commonwealth should co-ordinate immunisation policy development in consultation with the States/Territories, local government, the private sector and the community through the Immunisation Advisory Committee. This Committee would also be responsible for developing a nationally agreed dataset on childhood immunisation that would be provided by States/Territories to the Commonwealth on a regular basis.

Performance against the nationally agreed goals and targets should be monitored under the auspices of the NHMRC and AHMAC, with advice from the Commonwealth and States/Territories.

## Funding

The funding pool should combine current contributions from both Commonwealth and Stated Territories and include:

- amounts equivalent to the index-adjusted amounts granted to States and Territories from 1988 and incorporated into the Finance Assistance Grants and Hospital Funding Grants;
- new Commonwealth funding for the Hib program;
- savings from the shift in funding for child vaccines to GPs through the PBS to direct provision by State/Territory governments;
- savings from reduced costs to Medicare by increased opportunistic immunisation and greater use of alternative funding arrangements for immunisation in general practice; and
- existing State/Territory raised revenues provided for mass childhood immunisation.

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A number of specific conditions should be tied to these funds to ensure accountability.

The distribution of available public funding should be equitable between States/Territories based on child population statistics, with agreed loadings for special needs and existing coverage levels. Special needs may include the difficulties of supply to remote, isolated, Aboriginal populations and those from Non-English speaking background populations. Current coverage levels should be determined in multilateral discussions between the Commonwealth and States/Territories.

## Strategies for improving efficiency, quality, coverage and accountability

### Child-care, preschool and school entry requirements

Attendance at school and especially at organised child-care is a risk factor for vaccine preventable disease. It is considered essential that all States/Territories introduce legislation for child-care, preschool and school entry requiring parents to show evidence of immunisation status at the time a child enrols in any of these institutions. (Already achieved in NSW and partially achieved in the ACT and Victoria.)

This recommendation does not advocate compulsory immunisation nor a role for schools in policing immunisation. In the event of vaccine preventable disease occurrence, unimmunised children should be excluded from the schools, preschools or child-care centres for the period equivalent to the incubation period of the disease. Advice on these periods should be provided by States/Territories to schools, preschools and child-care facilities.

Further, enrolment at organised child-care, preschools or schools provides an opportunity to review immunisation status and remind parents of the need to ensure catch-up immunisation.

This recommendation has also been endorsed by the NHMRC.

### 'On-the-Spot' immunisation

'On-the-spot' immunisation should be encouraged as a safety net to catch children who miss out on immunisation through other organised delivery mechanisms. 'On-the-spot' immunisation could especially enhance coverage among high risk groups, which may otherwise need difficult and expensive programs. Opportunities for 'on-the-spot' immunisation include visits to hospital casualty departments, hospital admissions, visits to GPs and to Early Childhood Health Centres. These health providers should be made aware of the role they can play in providing the safety net and efforts need to be made to integrate these providers into the vaccine supply, record keeping and reporting mechanisms.

States/Territories should develop financial incentives for GPs to undertake opportunistic immunisations. Promotion of 'on-the-spot' immunisation among medical practitioners should be part of the national health promotion campaign on immunisation. This could include a wall chart on immunisation schedules, contraindications, etc.

### Simultaneous immunisation

Several recent studies have demonstrated that opportunistic simultaneous immunisation could significantly improve the up-to-date immunisation status of young children. For example, a survey in North Queensland has shown that simultaneous administration of an overdue vaccine — usually MMR — at the time the 18 month booster dose of triple antigen was given could have increased the number of children fully up-to-date by 2 years of age by about 10%.

However, immunisation providers must be convinced that simultaneous immunisation is not only safe, but also, does not increase the likelihood of any side effects, and that it does not compromise the effectiveness of any of the vaccine components. This information should be conveyed in educational material developed for immunisation providers.

Further, for simultaneous immunisation to be implemented, vaccine providers require the patient's immunisation record to be available at the time of consultation, so that the immunisation status can be assessed and any overdue vaccine(s) noted and administered.

Therefore, reliable parent held immunisation records will be required if the opportunity of simultaneous immunisation is to be recognised and used.

RESCINDED

### Access to immunisation

Improving immunisation coverage further would need new approaches to improve access to immunisation and to reach high risk groups. Immunisation services should be:

- located in places close to public transport, having enough parking places, easily identifiable/ visible places, etc.;
- more culturally appropriate e.g. employing Aboriginal and Torres Strait Islanders and other health workers from Non-English speaking backgrounds in areas where there are high proportions of populations with these backgrounds;
- open at times more suitable for parents to bring their children for immunisation. Regular immunisation clinics should have at least one late night and/or Saturday morning access per week. General practitioners may often be well placed to provide these services.

These improvements should be promoted locally through community newspapers, shopping centre promotions, day-care centres, antenatal clinics and hospitals and other voluntary organisations.

Special immunisation clinics should be conducted in areas where the immunisation coverage is known to be low. This would improve the coverage and provide opportunites for health promotion on immumsation.

### Vaccine purchase

Savings in the purchase of vaccines for childhood immunisations could be achieved through the establishment of a national vaccine tendering system. A bulk approach to the purchase of vaccines would exercise the power of a single purchaser to negotiate with multiple suppliers and hence keep vaccine prices down. Membership should be optional and States/Territories who believe they could get lower prices by remaining outside the national tendering process should not be disadvantaged.

This system could be operated by a consortium of States, Territories and the Commonwealth, with independent reporting to AHMAC. The tendering system would only supply vaccines on the national schedule to encourage uniformity.

State/Territory managed distribution systems would be the sole means of distributing free vaccine. Accordingly, data on immunisation coverage could be obtained by requiring data returns on vaccine usage by service deliverers.

### Cold-chain standards

To eliminate wastage and ensure the effectiveness of administered vaccines, vaccine distribution should conform to agreed standards for maintenance of the cold-chain.

Almost every State/Territory has identified potential breakdowns of the cold-chain at some point in the vaccine delivery system. To remedy this, a protocol for cold-chain management should form part of the national agreement and be included in State/Territory delivery plans.

There should be a copy of the national cold-chain maintenance protocol at all storage, distribution and service delivery points. The use of cold-chain monitors should be a condition of vaccine supply. All personnel involved in the distribution of vaccines should be trained in the administration of the protocol and the implications of non-compliance.

### Record keeping and reminder systems

Registers and reminder systems should be developed as part of the State/Territory delivery plans.

Only half of respondents to the ABS National Health Survey made reference to immunisation records when asked about their children's immunisation status. State/Territory plans should include parent held immunisation record systems for all children. These records could be used for school and child-care entry requirements.

Parents should have the option to participate in a reminder system. For example, parents could be offered the opportunity to participate in a reminder scheme operated by the relevant State/Territory public health authority, involving registration of the child's name, address and date of birth.

With the parents signed consent, data limited to address and telephone number could be provided by the Department of Social Security to enable children to be traced in the event of an unnotified change of address.

Local or area immunisation providers would send immunisation reminders at milestones in the child's development. (Such systems are already operating at a local level.) The scheme could be accessed through the public hospital system at the time of birth or by contacting the register at any time.

### Monitoring coverage

State/Territory delivery plans should include a mechanism for monitoring coverage. This could be achieved through a number of mechanisms such as returns from service providers on vaccine usage rates or population registers where each immunisation for each child is recorded.

Coverage surveillance needs to be on an age specific basis and should be reported yearly. The methods chosen should have an accuracy of ± 5%.Coverage should be measured in the following groups:

- 9–12 month old infants — to determine DTP3 and OPV3 coverage; and
- 24–35 month old children — to determine DTP4 and MMR1 coverage.

Children in the 24–35 month age group who have completed the schedule recommended to 2 years of age should be defined as 'fully immunised'.

### Monitoring and evaluation of performance

Performance indicators should be agreed between States/Territories and the Commonwealth as part of the national agreement. Indicators should include:

- immunisation coverage according to age;
- incidence of vaccine preventable disease, and
- outbreaks of vaccine preventable disease.

An independent co-ordinating body, under the auspices of AHMAC or the NHMRC, should review the coverage and epidemiology of vaccine preventable disease and provide a mechanism for joint evaluation. Such a body should also be a forum for the joint development of future policy under the National Immunisation Agreement.

The national immunisation agreement should be subject to review after evaluation of the program in the year 2000.

### Professional education

Regular updates and advice for immunisation providers should be provided by States/Territories following recommendations from NHMRC on national best practice. This would be updated by regular review of the NHMRC 'Immunisation Procedures' book and the promotion of this book among health care professionals.

The updates and advice should emphasise the following issues:

- quality control for vaccine storage to maintain the cold-chain;
- the use of appropriate immunisation protocols including appropriate contraindications; and
- the compliance with NHMRC immunisation schedules and the importance of age appropriate immunisation coverage.

### Public awareness campaign

States, Territories and Commonwealth should agree to participate in strategies to improve public awareness, including regular information campaigns, telephone information lines for the public, health care workers, child care facilities and schools.

Consumers have a need for easily accessible, comprehensible and accurate information. This should be supplied in a number of formats including pamphlets like NSW Department of Health's 'Benefits and Risks of Immunisation' or through services such as a recorded telephone information line. Information should also deal explicitly with 'homoeopathic immunisation' and perceptions of safety and efficacy.

The immunisation schedule is complex and is likely to become more complex in the future.

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Education needs to stress that the immunisation program is a package and that immunisation should not be seen in isolation, directed against specific diseases, but rather as a mechanism to promote child health as a whole. Educational materials should emphasise the community benefits as well as individual benefits.

### Monitoring international developments

The national co-ordinating unit should monitor developments in this area at the international level. There are considerable research and development activities being conducted by the WHO and other organisations. There should be scope in the national agreement to incorporate new ideas and cost-effective methods of delivery.

RESCINDED

## NHMRC recommended childhood immunisation schedule

| AGE | DISEASE | VACCINE |
|---|---|---|
| 2 mths | Diphtheria, Tetanus and Pertussis | Triple Antigen 'DTP' |
| | Poliomyelitis | Sabin vaccine 'OPV' |
| | *Haemophilus influenzae* type b* | Hib vaccine (a, b, c) |
| 4 mths | Diphtheria, Tetanus and Pertussis | Triple antigen 'DTP' |
| | Poliomyelitis | Sabin vaccine 'OPV' |
| | *Haemophilus influenzae* type b* | Hib vaccine (a, b, c) |
| 6 mths | Diphtheria, Tetanus and Pertussis | Triple antigen 'DTP' |
| | Poliomyelitis | Sabin vaccine 'OPV' |
| | *Haemophilus influenzae* type b* | Hib vaccine (b, c) |
| 12 mths | Measles, Mumps and Rubella | Measles-mumps-rubella, 'MMR' |
| | *Haemophilus influenzae* type b* | Hib vaccine (a) |
| 18 mths | Diphtheria, Tetanus and Pertussis | Triple antigen 'DTP' |
| | *Haemophilus influenzae* type b* | Hib vaccine (b, c) |
| 5 yrs or prior to school entry | Diphtheria, Tetanus | Child Diphtheria and Tetanus 'CDT' |
| | Poliomyelitis | Sabin vaccine 'OPV' |
| 10–16 yrs | Measles, Mumps and Rubella | Measles-mumps-rubella, 'MMR' |
| 15 yrs or prior to leaving school | Diphtheria and Tetanus | Adult Diphtheria and Tetanus 'ADT' |

* Immunisation against Hib infection should be started at 2 months of age with one of the three vaccines suitable for use at that age. The same vaccine should be used for the whole course of injections.

(a) PRP-OMP (PedvaxHIB) (b) HbOC (Hib TITTER) (c) PRP-T (Act-HIB)

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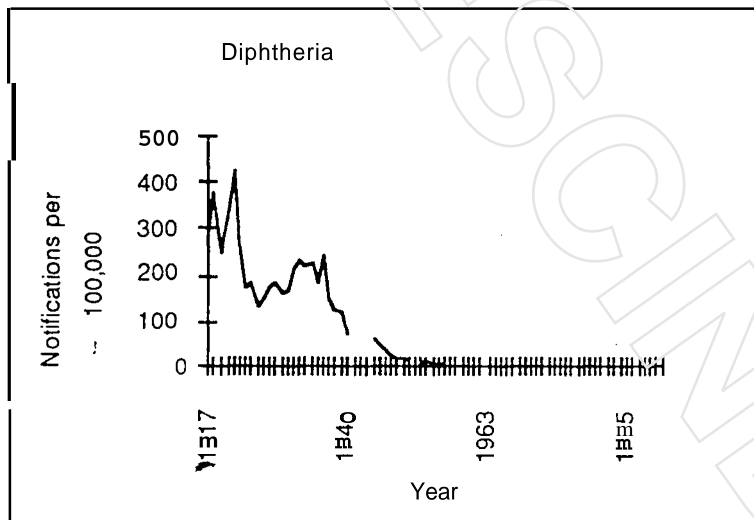
## Vaccine preventable diseases

Immunisation commenced in Australia in 1924 with the mass use of diphtheria toxoid in Victoria. Tetanus toxoid was used extensively during World War II. Pertussis vaccine was introduced in 1945 while tetanus toxoid was incorporated into triple antigen in 1953. Mass vaccination for poliomyelitis with inactivated Salk vaccine commenced in 1956 and was replaced by live oral Sabin vaccine in 1966. Measles vaccine was licensed for mass use in Australia in 1968 and rubella in 1970. Mumps was incorporated into the childhood immunisation schedules in 1982, and the combined measles-mumps-rubella (MMR) vaccine was introduced for infants in 1989.

Data on Australian incidence for vaccine preventable disease from 1920 show that the biggest fall in incidence rates occurred in the decade following the introduction of routine vaccination for each disease. The significance of vaccination in preventing deaths is illustrated in the following charts. (Note: Pertussis was not a notifiable disease during the period 1950–1978 and measles was not a notifiable disease during the period 1950–1988.)

Immunisation is one of the most cost-effective public health strategies available. At present, routine immunisation is used to protect against diphtheria, tetanus, pertussis (whooping cough), *Haemophilus influenzae* type b infections, poliomyelitis, measles, mumps and rubella. Hepatitis B vaccine is used for high-risk individuals and of other vaccines are also available for selective use.




### Diphtheria

Diphtheria is an acute-onset illness caused by a bacterium *Coynebacferium diphfheriae* which primarily affects the upper respiratory tract, often causing severe, potentially fatal airway obstruction. A toxin produced by this organism also causes neuropathy (nerve paralysis) and cardiomyopathy (heart muscle destruction). The latter is responsible for a death rate of around 10% even with all available modern therapy.

Prior to an antiserum becoming available in 1892, the death rate from diphtheria was much higher. Active vaccination against diphtheria was commenced in the twenties though was not widely applied until 20 years later. In a 10 year period from 1927, 4,200 deaths from diphtheria were notified within Australia. The impact of widespread vaccination has been dramatic so that diphtheria is now a rare disease. It does not occur in individuals who have been immunised though unimmunised individuals remain fully susceptible. Dangerous strains of the diphtheria bacillus are still found from time to time in Australia and can be carried and spread by immunised individuals.

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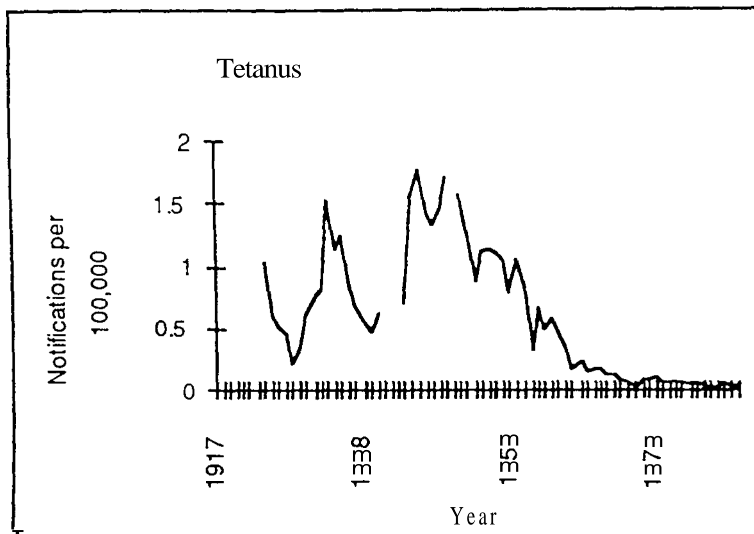
**Tetanus**

Tetanus is an acute, often fatal disease caused by the toxin produced by a bacterium, *Clostridium tetani* when this organism grows in a wound. The organism is ubiquitous, occurring everywhere in soil, dust and the digestive tracts of humans and other animals. Although deep injuries with extensive tissue damage are more likely to be complicated by tetanus, it can occur with the most minor of injuries where the skin is broken.

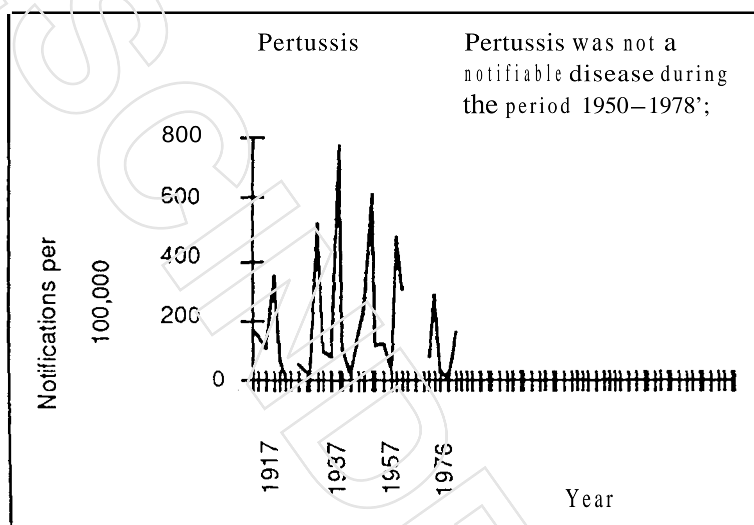



Tetanus is an exceptionally unpleasant illness characterised by agonising muscle spasms which can be severe enough to cause asphyxiation. Although modern intensive care can reduce the death rate, severe tetanus is still likely to be fatal.

Tetanus can be entirely prevented by routine immunisation. A completed course of immunisation provides total protection for many years. This was demonstrated in World War II when no Australian serviceman contracted tetanus. Fifteen people have been diagnosed as having tetanus in NSW since 1982. Immunisation had not been given or had been incomplete in all of these cases.

**Pertussis (Whooping cough)**

Pertussis is a highly contagious respiratory illness caused by *Bordetella pertussis.* It occurs in all age groups though is most severe in very young infants, with the death rate between 1:300 and 1:2000. It is an exceptionally unpleasant illness, the cough often persisting for months. Coughing spasms can cause such severe lowering of oxygen in the blood as to cause brain damage. The reported death rate from whooping cough in Australia before a vaccine was available was 1 per 2,400 total population. Since the widespread use of vaccine this has decreased to 1 per 760,000 total population.




Pertussis vaccines provide very good protection against pertussis in about 80% of individuals after a completed course and pertussis in the remaining 20% is likely to be less severe. Pertussis-containing vaccines often cause temporary discomfort or other side effects but virtually never death or permanent harm. This is clearly in contrast with the naturally-occurring infection.

Because of inappropriate fear of harm from pertussis-containing vaccines, vaccination rates have been allowed to fall in a number of countries from time to time over the past 20 years. This has always been associated with a rapid rise in the prevalence of pertussis in those countries, reversed only when higher immunisation rates were re-established.

Pertussis immunisation has important benefits in the community apart from those immediately receiving the vaccines. A high immunisation rate greatly lowers the number of individuals with pertussis at any one time, reducing the likelihood of exposure of those most at risk of severe illness and death from pertussis, i.e. infants in the first few months of life.

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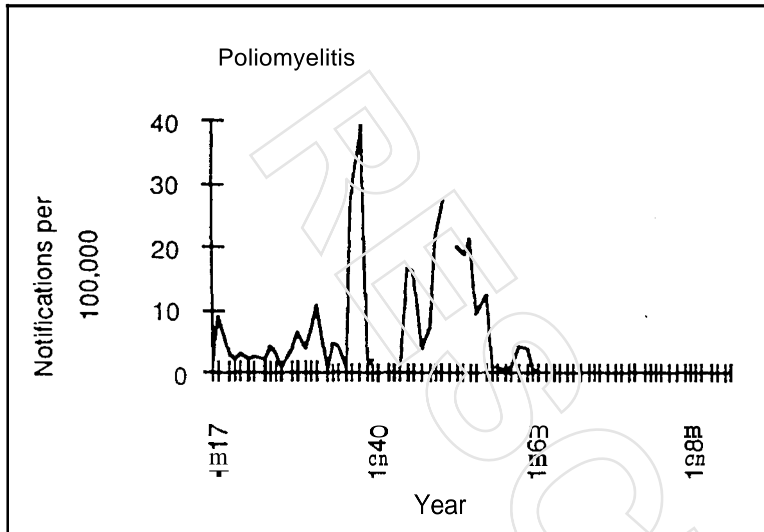
### *Haemophilus influenzae* type b infections

*Haemophilus influenzae* is an ubiquitous bacterial organism responsible for 95% of invasive bacterial infection in young children and is the commonest cause of life-threatening bacterial infection in children under the age of five years. It is the commonest cause of bacterial meningitis which contihues to have a significant death rate and high rate of permanent side effects. It causes a variety of other serious illnesses including epiglottitis, cellulitis, arthritis and pneumonia. Annual incidence and death rates in Western countries arc similar to those of poliomyelitis when that disease was at its most frequent, in the early fifties. Very serious *Haemophilus* infections are much more frequent in Australian Aboriginal children.

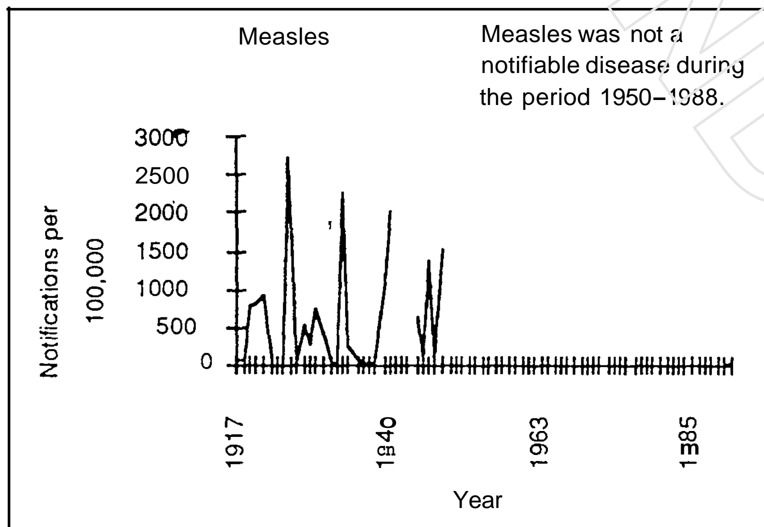
Effective vaccines have recently become available for immunisation in early infancy. These vaccines have very few side effects, probably no serious side effects and are highly effective in preventing *Haemophilus* infections.




### Poliomyelitis

Poliomyelitis is caused by a virus which occasionally causes a severe illness, so called 'paralytic poliomyelitis' which can result in death, a protracted paralytic illness and serious long term sequelae in about 50% of survivors. Death rates for paralytic poliomyelitis varies between 5% and 10%. Some survivors require long-term artificial ventilation.

An effective vaccine to prevent poliomyelitis was first used in Australia in 1955. Subsequently an oral, rather than injectable vaccine has been used. This vaccine protects virtually all of those immunised and poliomyelitis has been effectively eradicated from Australia with the use of this vaccine.




### Measles

Measles is an unpleasant, occasionally serious illness caused by a virus. Natural measles infection is usually an illness of about six weeks duration with cough throughout, high fever and systemic symptoms for the first 10 days, with a characteristic skin rash. Complications occur in about 5–10% of children with measles including middle-ear infection, croup, pneumonia, convulsions and encephalitis, the latter having an incidence of 1:5000 cases with a mortality rate of about 15%, 20–40% of survivors having severe residual brain damage. Death rate and complication rate is much higher where there is malnutrition or chronic illness.

Effective vaccines for measles have been available for more than 20 years. The vaccines are highly effective, serious side effects are exceptionally rare and side effects otherwise are mild. Because measles is such a contagious illness, outbreaks continue to occur amongst unimmunised individuals.

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## Mumps

Mumps, another acute viral illness, causes swelling and inflammation in the salivary glands and occasionally in the pancreas, ovaries and testes. It occasionally causes meningitis or encephalitis which may be severe. It can also cause deafness and, in unimmunised populations, results in a considerable number of hospital admissions. Mumps vaccine is combined with rubella and measles vaccines and given as a single injection.

## Rubella

Rubella is a mild infectious disease causing fever, rash and swelling of lymph glands. It is occasionally more severe, with joint pain or joint swelling. In its own right it may not be worthy of prevention. The very serious effects of infection in unborn babies, as the result of maternal infection, warrant prevention. Maternal rubella infection in the first 8–10 weeks of pregnancy damages up to 90% of infants, frequently with multiple serious defects. The risk of damage declines later in pregnancy but remains serious. Serious effects include congenital heart disease, mental retardation, cataracts, deafness, along with inflammatory changes in the brain, liver, lungs and bone marrow.

By immunising older schoolgirls and subsequently incorporating rubella into a vaccine given in infancy, congenital rubella infection has been enormously reduced within Australia. Rubella vaccines have virtually no side effects and a very high efficacy.

## Homoeopathic immunisation

So-called 'homoeopathic immunisation' is mentioned only because of its apparently increasing use within Australia. Practitioners who use these vaccines use either standard vaccines, greatly diluted or other unspecified substances. In either case, there is no evidence whatsoever that there is any protection against vaccine-preventable diseases. 'Homoeopathic immunisation' is, therefore, a contradiction in terms and is a fraud.

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**Attachment C**

**Table: Expenditure by States/Territories on immunisation, 1990-91**

| State | Expenditure<br>$m | Percentage of national expenditure by States/Territories<br>% | Percentage of national school age population<br>% |
|---|---|---|---|
| NSW | 3.424 | 28.61 | 33.6 |
| VIC | 3.587 | 29.97 | 24.9 |
| QLD | 1.281 | 10.70 | 17.7 |
| WA | 2.263 | 18.91 | 10.0 |
| SA | 0.830 | 6.94 | 7.9 |
| TAS | 0.176 | 1.47 | 2.9 |
| NT | 0.213 | 1.78 | 1.2 |
| ACT | 0.194 | 1.62 | 1.8 |
| AUST | 11.968 | 100.00 | 100.0 |

Note: The expenditure data provided by States/Territories may not relate to comparable actiyity e.g. some States/Territories may have included expenditure on adult immunisation.

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# A model for vaccine costs

## A. Cost of vaccine

| Vaccine | High range ($) | Mid range ($) | Low range ($) |
|---|---|---|---|
| DTP | 4.05 | 3.55 | 3.05 |
| CDT | 3.40 | 3.15 | 2.85 |
| ADT# | | 3.60 | |
| OPV (*) | 0.36 (1.75*) | 0.31 (1.55*) | 0.26 (1.30*) |
| “R | 5.09 | 4.10 | 3.14 |
| Hib | 20.00 | 15.00 | 10.00 |

# NSW tender price

* An additional assumption is made that only two doses are used in each 10 dose vial when administered in a private health care setting.

(Source: State and Territory health authorities, 1992)

## B. Population

Birth cohort 127.851

12 year olds 125.054

15 year olds 136.749

(Source: Estimated resident population by sex and age, State and Territories of Australia. Australian. Bureau of Statistics, Catalogue No. 3201.0).

## C. Model

1. No parents will seek exemptions for medial reasons or conscientious objection
2. Vaccine will be provided for four doses of DPT, poliomyelitis and Hib, and one dose of measles-mumps-rubella for each child born; in addition each child will receive an additional dose of poliomyelitis vaccine and CDT prior to school-entry. The second dose of MMR will be offeredat the age of 12 years. The 15 year booster dose will consist of ADT.
3. 49.5% of children will be immunised in the private health care setting, for their primary immunisations. (Source: 1989–1990 National Health Survey Children’s Immunisation, Australia. Australian Bureau of Statistics. Catalogue No. 4379 0).
4. All children will be immunised in the public health care setting for the 12 year measles-mumps-rubella, and the 15 year ADT booster.

| Vaccine | Group | No. Immunised | High range ($) Immunisations | Mid range ($) | Low range ($) |
|---|---|---|---|---|---|
| DTP | Birth | 4 | 2,071,186 | 1,815,484 | 1,559,782 |
| CDT | Birth | 1 | 434,693 | 402,730 | 364,375 |
| ADT | 15 yr olds | 1 | 492,296 | 492,296 | 492,296 |
| OPV(*) | Birth | 4 | 535,977 | 472,434 | 335,803 |
| “R | Birth | 1 | 650,762 | 525,467 | 401,452 |
| MMR | 12 yr olds | 1 | 636,525 | 513,972 | 392,670 |
| Hib | Birth | 4 | 10,228,080 | 7,671,060 | 5,114,040 |
| TOTAL | TOTAL | | 15,049,519 | 11,893,443 | 8,660,418 |

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# Glossary

| Abbreviation | Meaning |
|---|---|
| ABS | Australian Bureau of Statistics |
| AHMAC | Australian Health Minister' Advisory Council |
| AHMC | Austalian Health Ministers' Conference |
| CDT* | Child diphtheria-tetanus vaccine |
| DTP* | Diphtheria-tetanus-pertussis vaccine |
| HHCS | (Department of) Health, Housing and Community Services |
| HHLGCS | (Department of) Health, Housing, Local Government and Community Services |
| Hib' | *Haemophilus influezae* type b |
| MBS | Medical Eknifits Schedule |
| MMR* | Measles-mumps-rubella vaccine |
| OPV* | Oral polio vaccine |
| PBS | Pharmaceutical Benefts Schedule |

* When the abbreviation is followed by a number, this refers to a specific dose in the immunisation schedule e.g. DTP1 is the first dose of DTP vaccine, DTP2 is the second dose, etc.

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# THE NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL

The National Health and Medical Research Council (NHMRC) became a statutory body within the portfolio of the Commonwealth Minister for Health, established by the *Nafional Health and Medical Research Council Act 1992* with effect from 24 June *1993.* The NHMXC advises the Australian community and Commonwealth; State and Territory Governments on standards of individual and public health, and supports research to improve those standards.

The NHMRC advises the Commonwealth Government on the funding of medical and public health research and training in Australia and supports many of the medical advances made by Australians.

The Council comprises nominees of Commonwealth, State and Territory health authorities, professional and scientific colleges and associations, unions, universities, business, consumer groups, welfare organisations, conservation groups and the Aboriginal and Torres Strait Islander Commission.

The Council meets twice a year to consider and make decisions on reports prepared by committees and working parties following wide consultation on the issue under consideration.

A regular publishing program ensures that Council's recommendations are widely available to governments, the community, scientific, industrial and educational groups.

The Council publishes extensively in the following areas:

• Child Health • Clinical Practice • Communicable Diseases • Dentistry
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