Government of **Western Australia**
Department of **Health**

# Western Australian Immunisation Strategy

## 2016–2023

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# Foreword

The Western Australian Immunisation Strategy Implementation Steering Committee (WAISISC) approved the WA Immunisation Strategy 2016-2020 to be extended to provide continued guidance for immunisation service providers and stakeholders through to the end of 2023.

The WA Immunisation Strategy 2016-23 identifies 10 objectives and outlines a comprehensive framework to address these through strengthening immunisation program service delivery and partnerships across WA.

# Message from the Minister for Health

Immunisation is well recognised as one of the most effective measures a society can undertake to protect the health of the population. According to the World Health Organization (WHO), vaccination is second only to clean water as the public health intervention with the greatest global impact. Vaccination is also highly cost-effective; for every $1 spent on routine childhood vaccinations an estimated $5 in direct medical costs are saved, with another $11 saved in indirect costs (e.g. for time off work, loss of productivity).

Given the key role vaccinations play in reducing the burden of infectious diseases in our community, the need arose for a comprehensive immunisation strategy to be developed for our state. The inaugural Western Australia Immunisation Strategy Implementation Steering Committee (WAISISC) was convened to implement the new strategy. Reporting to the Director General, WAISISC is comprised of senior level representatives from many private and public immunisation stakeholders. Over the last three years, WAISISC and CDCD have worked together towards the national childhood immunisation target of 95 per cent full vaccination coverage.

I am pleased to report that there has been substantial progress in improving immunisation coverage and services in WA under the 2013–2015 Strategy. For example, at the close of 2015, the proportion of WA children fully vaccinated at five years of age is the highest it has ever been – 92 per cent – and this figure is even higher for Aboriginal children. These trends are very promising and reflect the enormous amount of work that the Department of Health and its immunisation partners have done to boost immunisation rates across the State.

There is still more work to do, however. The WA Immunisation Strategy for 2016 – 2023 provides clinicians, administrators, and policy makers with clear direction on WA Health's priorities for delivering immunisation services over the next five years. It is imperative that we sustain the momentum obtained under the WAIS 2013–2015 and deliver meaningful, quantifiable outcomes that benefit the people of Western Australia.

WA Health has an unwavering commitment to protect the health of our citizens through vaccination and I welcome increased collaboration and renewed efforts from the wider health sector to ensure successful implementation of the *Western Australian Immunisation Strategy 2016–2023.*

**JOHN DAY**
**MINISTER FOR HEALTH;**
**CULTURE AND THE ARTS**

* Throughout this document the word "Aboriginal" refers to both Aboriginal and Torres Strait Islander people.

# Executive summary

Immunisation is frequently cited as one of the greatest medical breakthroughs in human history. Research has shown vaccinations to be the most effective medical intervention for reducing morbidity and mortality from infectious diseases, surpassing even the notable contribution of antibiotics.

Despite the overall success of immunisations and ready availability of safe and effective vaccines, many vaccine-preventable diseases (VPDs) still occur in Australia. The consequences of this include increased doctor visits, absence from work and school, hospitalisation, permanent disability and premature death. Influenza alone is estimated to be responsible for 1,500 deaths, 18,000 hospitalisations, and 300,000 GP consultations in Australia each year.

Childhood immunisation coverage has, historically, been somewhat lower in Western Australia (WA) than other jurisdictions in Australia – but is improving – a reflection of the improved proactive collaboration occurring among WA stakeholders. In other areas, for example, vaccine safety surveillance and maternal vaccinations, WA is in the forefront of national efforts to improve services. A report of progress made under the 2013–2015 Strategy is included in this document.

The *Western Australian Immunisation Strategy 2016–2023* provides a vision for building on improvements in immunisation services realised under the previous strategy. The current Strategy articulates 10 'Objectives', which encompass a comprehensive framework for enhancing all aspects of immunisation program service delivery in WA. The specific objectives are:

- increase vaccination coverage for young children
- increase vaccination coverage for Aboriginal people
- increase vaccination coverage for adolescents
- increase vaccination coverage for adults
- improve support for immunisation providers
- increase immunisation workforce capacity
- improve vaccine preventable diseases surveillance and outbreak response
- improve vaccine safety monitoring
- improve communication with stakeholders and the community
- encourage and support applied immunisation research.

It is WA Health's aim that the 2016–2023 Strategy will serve as comprehensive road map to strengthen programs and partnerships that improve our capacity to protect the health of our communities through immunisation.

# 1. Purpose

The purpose of the *Western Australian Immunisation Strategy 2016–2023* (the Strategy) is to provide clear direction for immunisation stakeholders in Western Australia on how to optimise immunisation service delivery across the State, within the context of national and state policy.

# 2. Goal, aims and objectives

The goal of the *Western Australian Immunisation Strategy 2016–2023* is to protect individuals and populations from vaccine-preventable diseases (VPDs). The overarching aims of the Strategy are to:

- achieve or sustain high levels of immunisation coverage across WA, with equity in access to vaccines and immunisation services, including communities that have special needs because of remote location or socio-cultural or economic factors
- provide safe, high-quality immunisation services that instil public confidence and adherence to vaccine recommendations
- ensure cost-effective use of vaccines and efficient immunisation services
- have timely and effective monitoring of immunisation coverage and surveillance of VPDs and the occurrence of adverse events following immunisation (AEFI)
- have clear communication with the public and providers about VPDs, vaccines and AEFI.

In order to achieve the aims listed above, 10 Objectives have been established, with a set of strategies around each. The objectives are:

**Objective 1:** Increase vaccination coverage for young children

**Objective 2:** Increase vaccination coverage for Aboriginal people

**Objective 3:** Increase vaccination coverage for adolescents

**Objective 4:** Increase vaccination coverage for adults

**Objective 5:** Improve support for immunisation providers

**Objective 6:** Increase immunisation workforce capacity

**Objective 7:** Improve vaccine preventable diseases surveillance and outbreak response

**Objective 8:** Improve vaccine safety monitoring

**Objective 9:** Improve communication with stakeholders and the community

**Objective 10:** Encourage and support applied immunisation research.

# 3. Progress under the 2013–2015 WA Immunisation Strategy

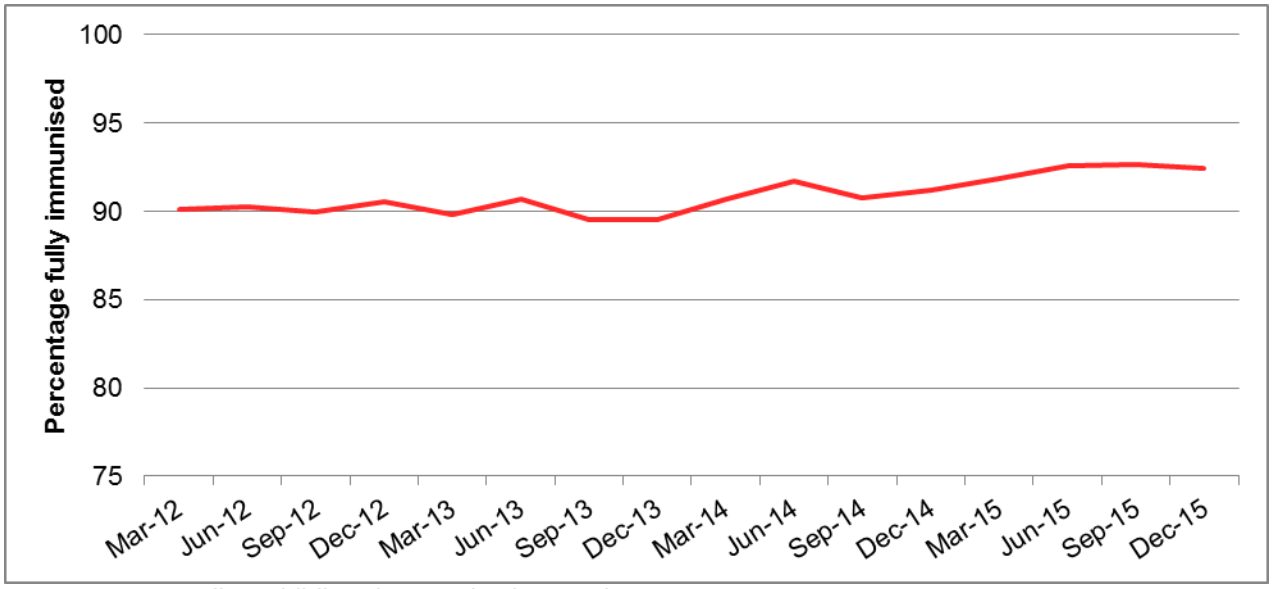
The *WA Immunisation Strategy 2013–2015* contained seven key performance indicators for assessing success in meeting the objectives of the strategy. How well WA performed against each of these indicators is summarised below.

## Key Performance Indicators:

### 1. Vaccination coverage rates in WA children 12–15 months old consistently >90%

The proportion of WA children fully vaccinated at one year of age increased and has been consistently above 90 per cent since March 2014.

**Percentage of one-year-old children in Western Australia who are fully immunised, 2012–2015**




*SOURCE: Australian Childhood Immunisation Register*

### 2. Vaccination coverage rates in WA children 24–27 months old consistently >90%

The proportion of WA children fully vaccinated at two years of age has typically been >90 per cent. However, in late 2014 three additional vaccines were added to the definition of "fully vaccinated" for the 24-<27 month time point. As a consequence of this change, vaccination rates, as calculated by the Australian Childhood Immunisation Register (ACIR), fell abruptly in WA and other jurisdictions immediately afterward. Providers have responded to the change and coverage for two-year-olds is now approaching 90 per cent again.

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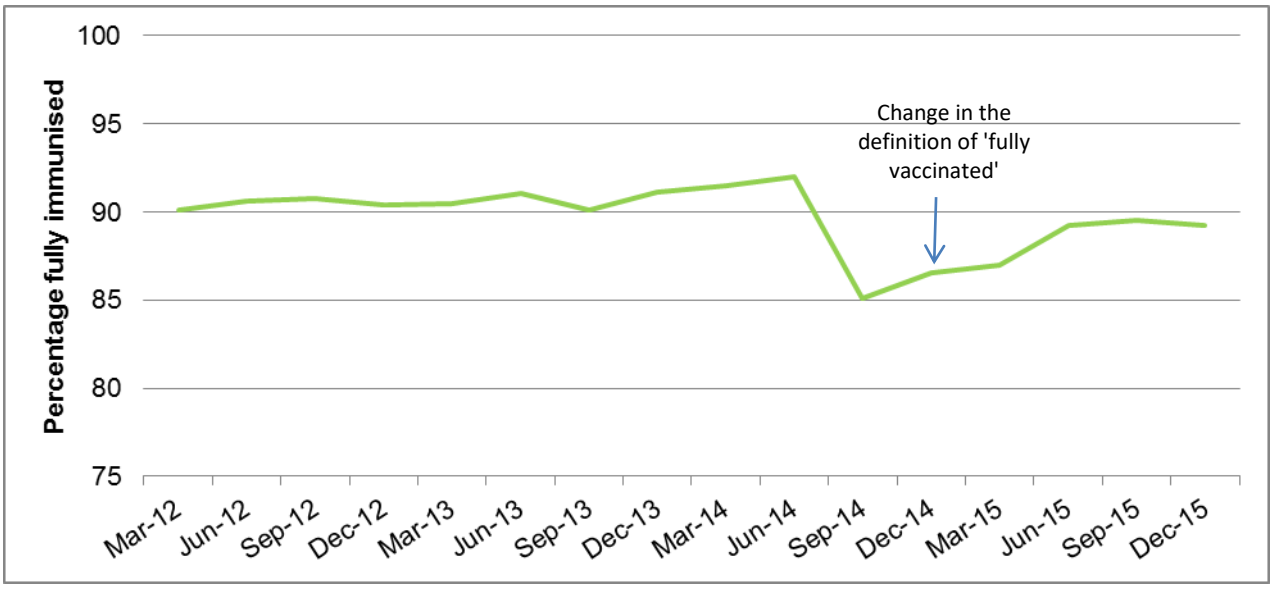
**Percentage of two-year-old children in Western Australia who are fully immunised, 2012–2015**

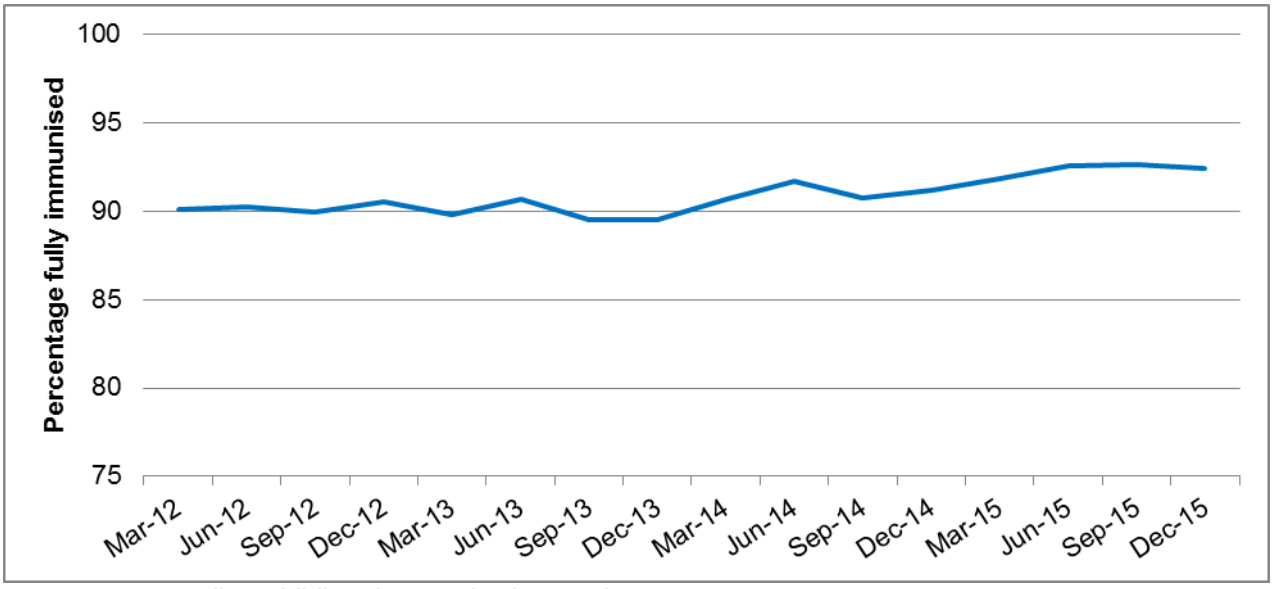



*SOURCE: Australian Childhood Immunisation Register*

## 3. Vaccination coverage rates in WA children 60-63 months old consistently >90%

The proportion of WA children fully-vaccinated at five years of age has increased since 2012 and has remained above 90 per cent since July 2014.

**Percentage of four-year-old children in Western Australia who are fully immunised, 2012–2015**

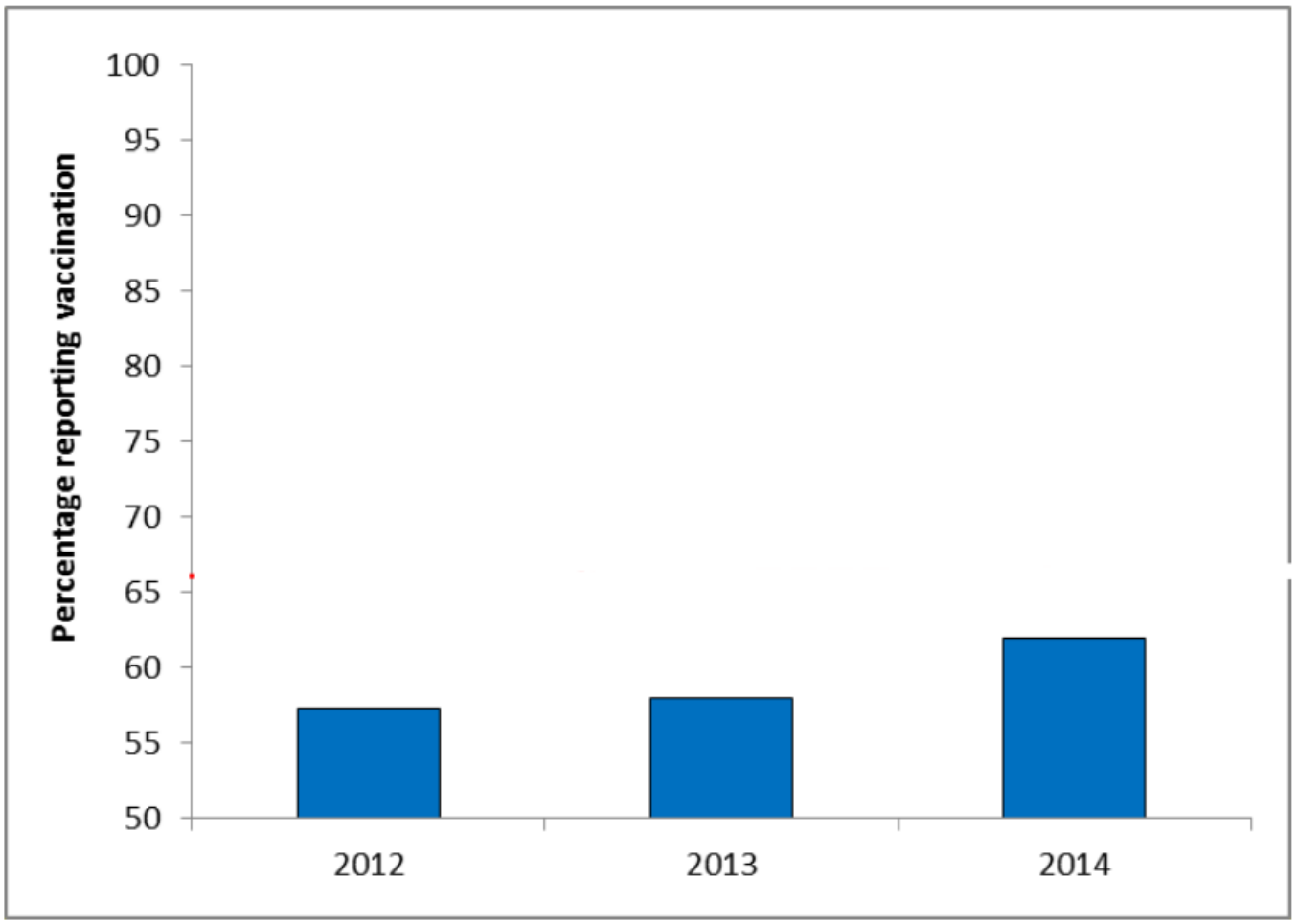



*SOURCE: Australian Childhood Immunisation Register*

## 4. Influenza vaccination coverage in persons 65 and older >70%

Annual telephone surveys conducted by the WA Department of Health indicate there has been some improvement in the proportion of persons 65 years of age and older who receive a seasonal influenza vaccination each year. However, fewer than 70 per cent of older adults were immunised as of 2014. More effort is needed to improve immunisation rates among older adults in WA.

**Percentage of Western Australian adults ≥65 years of age who received a seasonal influenza vaccine – 2012-2014**

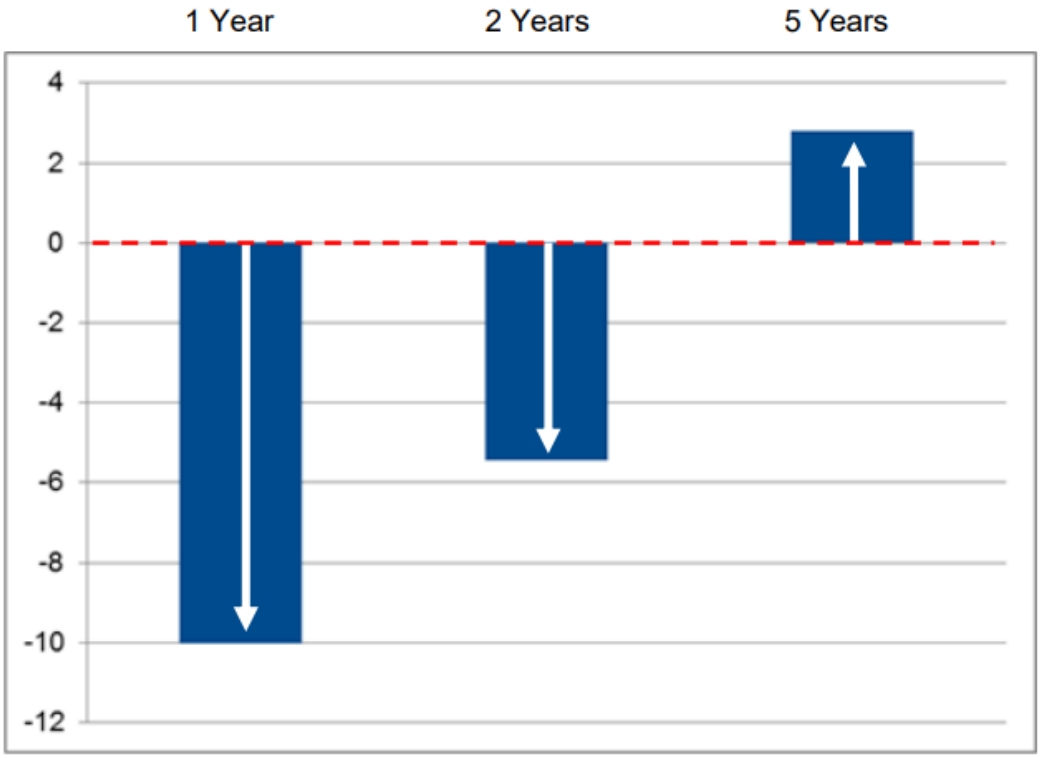



*SOURCE: Western Australian Health and Wellbeing Surveys*

## 5. Vaccination coverage rates among Aboriginal children equal to those of other children

The most recent data from the Australian Childhood Immunisation Register show that immunisation coverage for Aboriginal children in WA is approximately seven per cent lower than that for non-Aboriginal children at one year of age. However, this discrepancy decreases to four per cent by two years of age, and by five years of age, immunisation coverage for Aboriginal children exceeds that of their non-Aboriginal counterparts.

**Difference between Vaccination Coverage Rates for Aboriginal and Non-Aboriginal Children at 1, 2 and 5 Years of Age, Western Australia, ages calculated 31 Dec 2015**




*SOURCE: Australian Childhood Immunisation Register* - Graph depicts the percentage of Aboriginal children in the cohort who are fully vaccinated, minus the percentage of non-Aboriginal children who are fully vaccinated.

## 6. Vaccine wastage and leakage in WA less than 10 per cent

For the past three years WA met the target of less than 10 per cent vaccine wastage and leakage, achieving wastage/leakage of four per cent in 2012–13, 5.7 per cent in 2013–14 and 6.7 per cent in 2014–15.

## 7. Maintaining or increasing coverage in agreed areas of low immunisation coverage

As originally set out in the National Partnership Agreement for Essential Vaccines (NPAEV), every year the Department of Health nominates several local geographic areas in WA where immunisation coverage is at least five per cent below the national average. To meet federal benchmarks, these areas must maintain or improve their immunisation coverage in the following

year, as determined by data in the Australian Childhood Immunisation Register. WA has consistently met this benchmark.

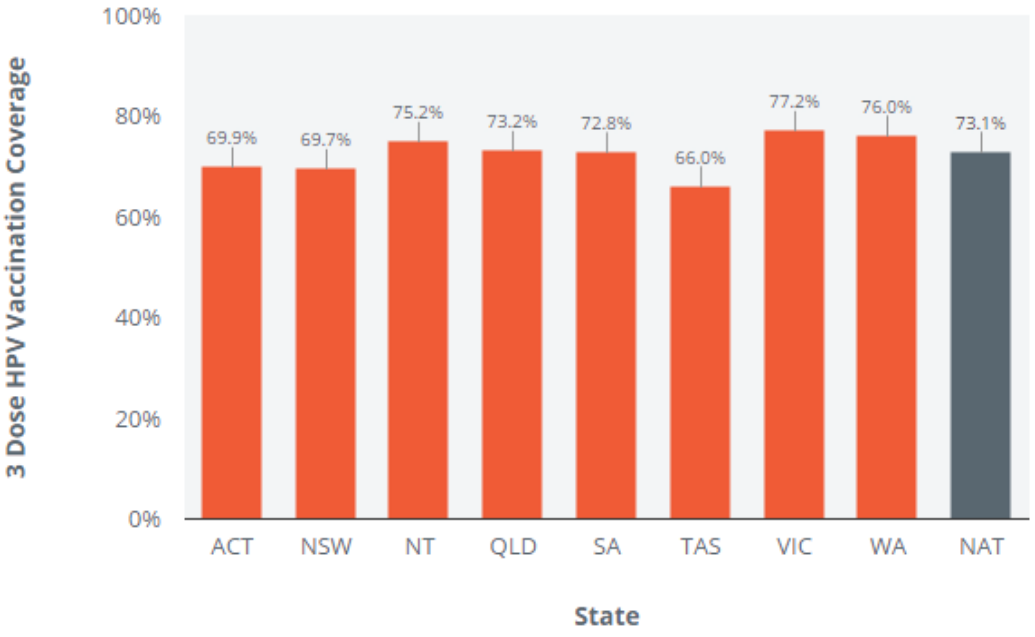
## 8. Other significant achievements

In addition to the progress made against the key performance indicators noted above, other significant achievements have been made towards operationalising the *WA Immunisation Strategy 2013–2015*.

### 8.1 The WA school-based immunisation program achieves some of the highest rates of Human Papilloma Virus (HPV) vaccination coverage among females in the country

The most recent data from the national HPV vaccination register indicate that the proportion of females turning 15 years of age in 2014 who are fully vaccinated against HPV in WA ranks above the national average, second only to Victoria.

**Percentage of female adolescents receiving 3 doses of HPV vaccine in Australia, 2014**

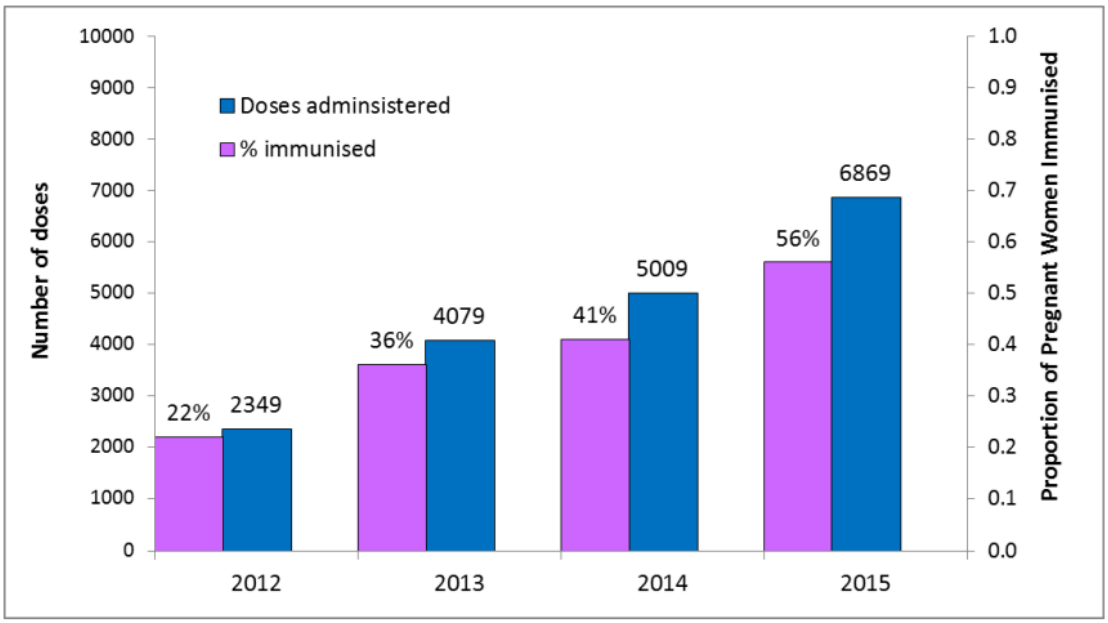



*SOURCE: [http://www.hpvregister.org.au/research/coverage-data/HPV-Vaccination-Coverage-2014](http://www.hpvregister.org.au/research/coverage-data/HPV-Vaccination-Coverage-2014)*

## 8.2 The proportion of pregnant women in WA receiving influenza vaccine has steadily increased and a successful maternal pertussis vaccination program has been initiated.

As shown below, the number of pregnant women being vaccinated against influenza each year is increasing.

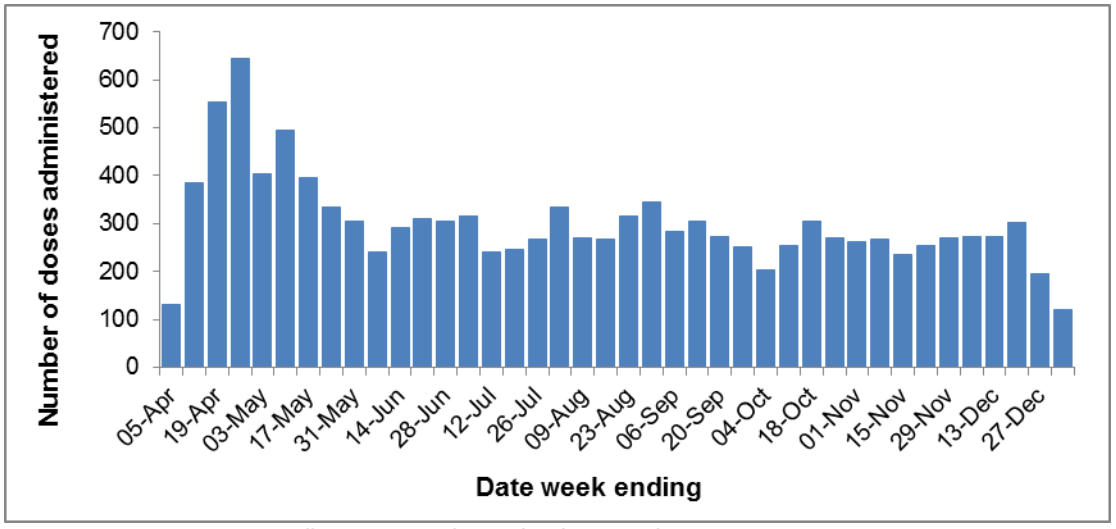
**Percentage of pregnant women immunised against seasonal influenza and the number of doses administered in Western Australia, 2012–2015**




*SOURCE: Western Australian Antenatal Influenza Vaccination Database / telephone interviews conducted by Western Australia Department of Health*

Initiated in March 2015, the Pertussis Vaccination in Pregnancy Program provides immunisation to approximately 300 women every week. A survey conducted in 2015 indicates just over 70 per cent report being immunised with pertussis vaccine while pregnant.

**Number of doses of pertussis vaccine administered to pregnant women in Western Australia, 2015**




*SOURCE: Western Australian Antenatal Vaccination Database*

### 8.3 Online immunisation training and updates have been developed and deployed providing greater opportunities for flexibility and distance learning

WA has partnered with South Australia in implementation of a comprehensive online education program, entitled *Understanding Vaccines and the National Immunisation Program*. WA Health has also developed a program of web-based immunisation updates to keep providers up to date with changes to the immunisation program and fulfil annual training requirements established in the Vaccine Administration Code.

### 8.4 An immunisation course specifically tailored to the needs of Aboriginal healthcare workers (AHW) has been created and implemented

WA Heath has partnered with the Aboriginal Health Council of Western Australia (AHCWA) to develop and provide immunisation training for AHWs in WA. Training AHWs in immunisations expands the work force of culturally-competent, immunisation-knowledgeable care providers available to Aboriginal communities.

### 8.5 Web-based methods for facilitating influenza vaccine uptake among WA healthcare workers (HCWs) have been established

In 2015, WA Department of Health launched an electronic immunisation consent and reporting system for HCWs receiving influenza vaccines. The system was initially trialled across several sites, including small regional facilities, large metropolitan hospitals, and office-based workplaces, producing more timely estimates of staff influenza vaccine coverage in the sites which participated. In 2016, this initiative will be rolled out across the state, providing a paperless means to assess HCW influenza vaccine uptake in a timely manner.

### 8.6 More than 100 “Vaccine Updates” have been written and distributed using an electronic distribution list in order to keep providers current with developments in immunisation practice

The Vaccine Update email distribution system has improved communication between the Department of Health and immunisation stakeholders statewide. Currently, there are more than 3,000 public and private immunisation providers subscribed.

### 8.7 Systems for monitoring and reducing vaccine loss through cold chain-breaches and vaccine expiry have been improved

A new process for reporting and recording vaccine wastage was implemented at the beginning of 2015. Data on vaccine wastage is now provided to CDCD, and aggregated into the WA Vaccine Wastage Database. The first quarterly summary report of vaccine wastage was supplied to each population/public health unit at the end of Quarter 3, 2015. The goal of reviewing these data is to better understand the circumstances that result in vaccine wastage so that future losses can be minimised.

### 8.8 WA has developed and maintains what is arguably the most comprehensive immunisation adverse event monitoring program in the country

As recommended by the 2010 *Ministerial Review into the Public Health Response into the Adverse Events to the Seasonal Influenza Vaccine* (AEFI), WA Health now operates several active and passive vaccine AEFI monitoring systems – more than any other jurisdiction in Australia.

**8.9 WA DOH Prevention and Control team have co-authored more than 20 peer-reviewed publications relevant to improving immunisation practice and monitoring vaccine safety since January 2013**

# 4. Challenges to improving immunisation services in WA

Despite recent success in many areas, substantial challenges to delivering comprehensive high-quality vaccination services remain.

WA is a large, diverse and unevenly populated area, and this contributes to the complexity of delivering equitable immunisation services statewide. Providers in the public and private sectors deliver varying sets of service. Robust immunisation services necessitate a coordinated effort and resources from many stakeholders. Ambiguity about the role of these parties may inadvertently lead to gaps in service and sub-optimal vaccination coverage. A better understanding of how responsibility for keeping children fully up to date with their vaccinations should be apportioned among parents, providers and health departments at local, state and national level is required.

The recent, relatively rapid transition from immunisation activities supported by GP Divisions, first to Medicare Locals, and now to the Primary Health Networks has added to the uncertainty about roles and responsibilities for improving immunisation services in WA. GPs provide the majority of vaccinations administered in WA, so robust collaboration with the private primary healthcare sector is essential for improving and sustaining quality immunisation services. The new WA Primary Health Alliance, representing the Primary Health Networks in WA, intends to build a robust and responsive patient-centred primary healthcare system through innovative and meaningful partnerships at the local and statewide level. Specifics on how immunisation initiatives undertaken by WA Primary Health Alliance will interface with those provided by Child and Adolescent Health Service (CAHS), WA Country Health Service (WACHS), and local Public/Population Health Units are currently being finalised.

Accountability for improving immunisation services is arguably the most challenging to articulate for metropolitan Perth. This is most likely because of the organisational structure of the department, resulting in CAHS having responsibility for delivering immunisation services to children (predominantly) and the public health units in the two metropolitan Area Health Services having responsibility for supporting immunisation services and improving uptake.

Last, legislation controlling the prescribing and administration of medicines has, historically, not allowed certain health professional groups autonomy to vaccinate without the direct supervision of a medical practitioner. Under newly passed legislation, however, efforts are underway to permit nurses and other trained and competent health professionals to independently administer vaccinations in the routine WA Immunisation Schedule using special prescribing arrangements. It is anticipated the work required to accomplish this will be completed in 2016.

# 5. Setting priorities for the WA Immunisation Strategy 2016–2023

Beginning in mid-2015, DOH immunisation program staff conducted an internal review of how the Department and its partners performed in achieving the objectives of the 2013–2015 Strategy.

This assessment was shared with the WA Immunisation Strategy Implementation Steering Committee (WAISISC). Initially convened in July 2013, implementation of the WA Immunisation Strategy is overseen by WAISISC. WAISISC discussed potential changes to the *WA Immunisation Strategy* (WAIS) at a special session held in August 2015. Based on input from the committee, a draft version of the WAIS was circulated to wide range of stakeholders for comment. The key objectives contained in the WAIS 2016–2023 incorporate input from key stakeholders, following review by WAISISC.

Throughout this process there was general consensus that substantial progress has been made in improving immunisation coverage and services in WA under the 2013–2015 Strategy. The majority of the Key Objectives identified in the previous Strategy were considered appropriate, as evidence by WA's overall success in meeting performance indicators during 2013–2015. Hence, many of the objectives have been retained in the WAIS for 2016–2023.

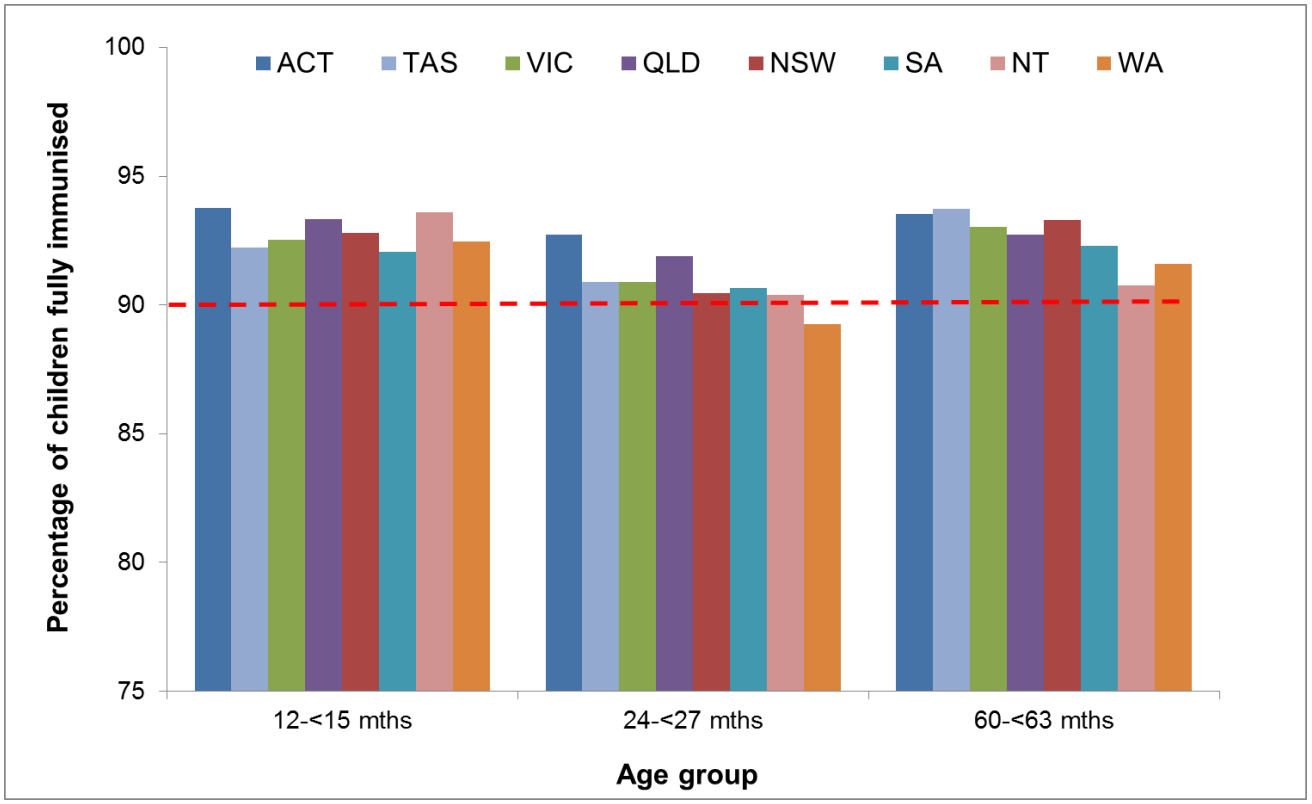
# 6. Key objectives of the WA Immunisation Strategy

## Objective 1: Increase vaccination coverage for young children

Over the last several years WA has made headway in improving immunisation rates among children less than five years of age, with greater than 90 per cent of one and five-year-olds fully vaccinated for age.

Despite these improvements, the latest available data from ACIR indicate that vaccination coverage rates among children in WA are slightly lower than for most other Australian jurisdictions.

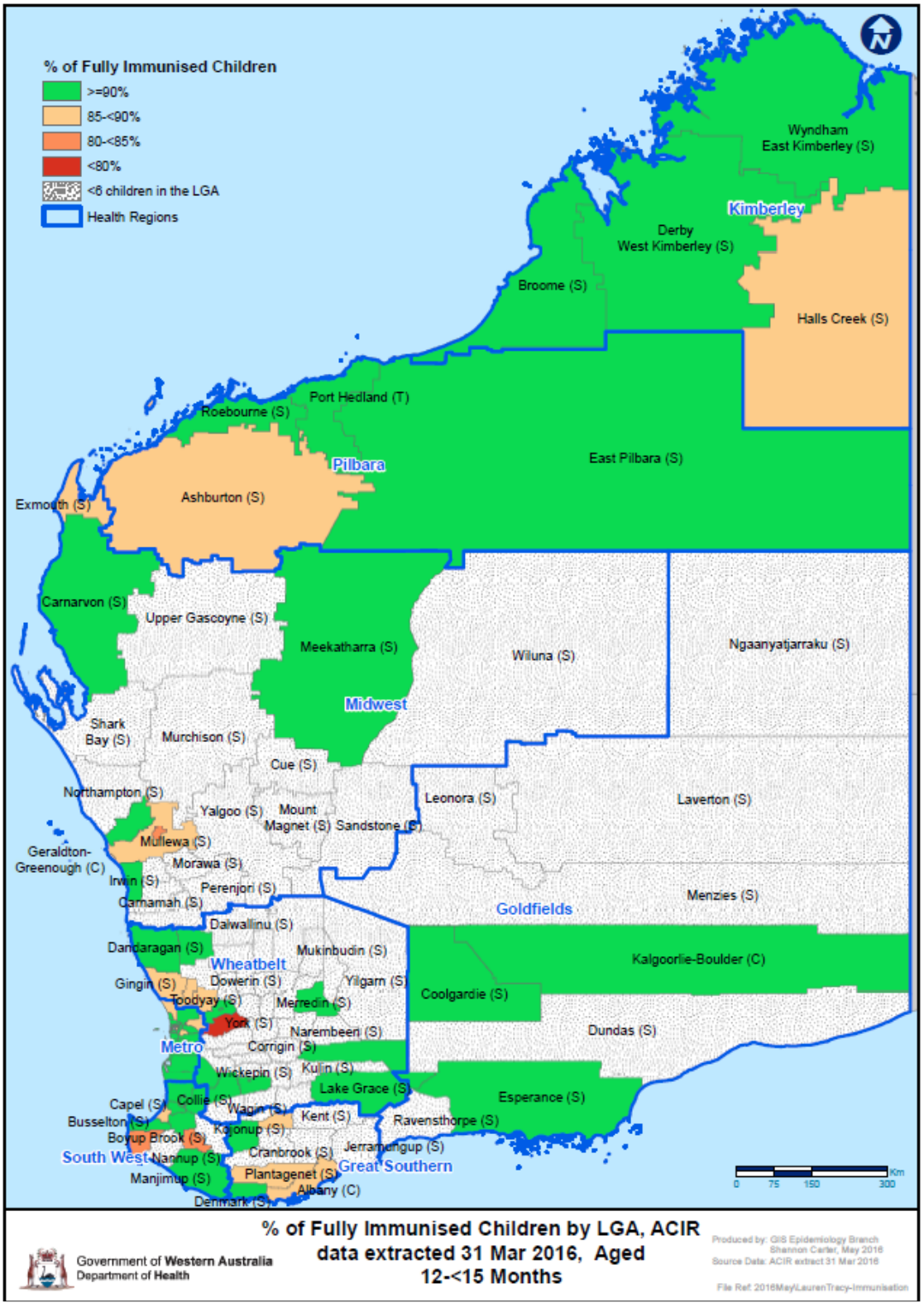
**Percentage of children aged one, two and five years old who are fully immunised, by jurisdiction, ages calculated 31 December 2015**




*SOURCE: Australian Childhood Immunisation Register*

As the map below illustrates, there are pockets of under-vaccinated children in multiple geographic locations across WA.

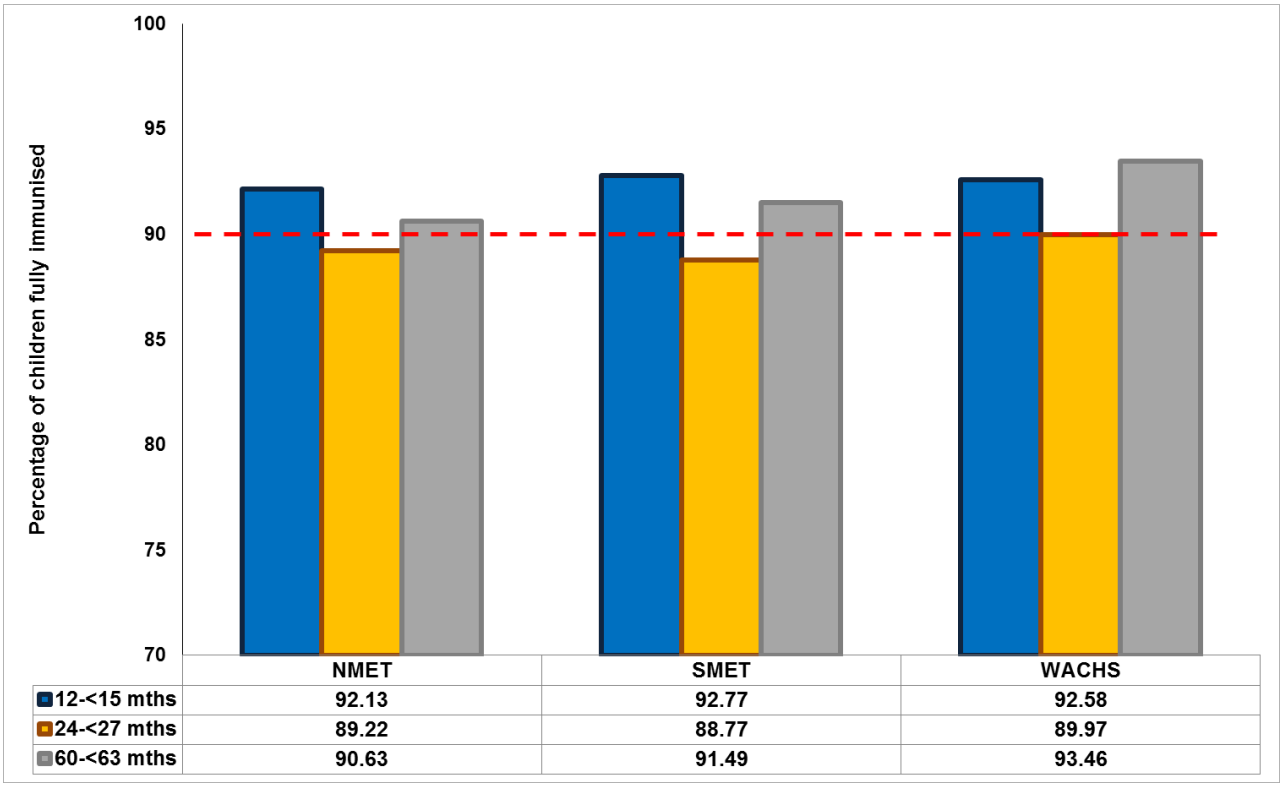
**Percentage of children fully immunised at one year of age in Western Australia, by local government area, ages calculated 31 December 2015**




*SOURCE: Australian Childhood Immunisation Register*

The most recent data from ACIR indicate that childhood immunisation coverage for all three age time points is slightly higher in WA country areas, compared to metropolitan Perth, and that coverage is marginally higher for children in the North Metropolitan Area, compared to the South Metropolitan Area.

**Percentage of children fully immunised in metropolitan and regional health services, ages calculated 31 December 2015**

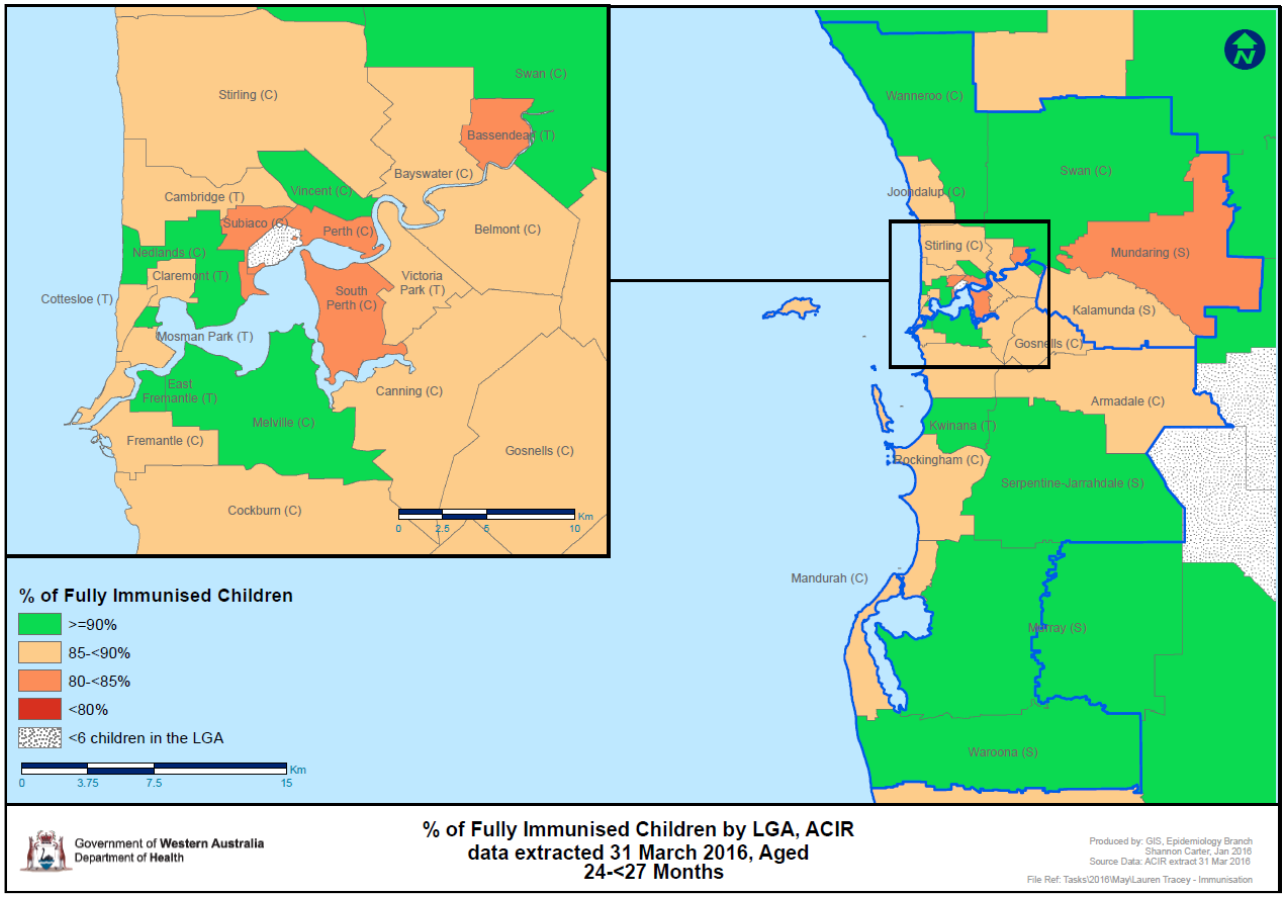



| | NMET | SMET | WACHS |
|---|---|---|---|
| 12-<15 mths | 92.13 | 92.77 | 92.58 |
| 24-<27 mths | 89.22 | 88.77 | 89.97 |
| 60-<63 mths | 90.63 | 91.49 | 93.46 |

*SOURCE: Australian Childhood Immunisation Register*

Much of the Perth metropolitan area falls below the current national average of 90.4 per cent for fully vaccinated for children at 24 to < 27 months of age.

**Percentage of two-year-old children fully immunised in the metropolitan area, age calculated 31 December 2015**




*SOURCE: Australian Childhood Immunisation Register*

Although influenza vaccines are offered at no cost to children between six months and four years of age in Western Australia, uptake since 2010 has been poor – it is estimated that 10.8 per cent of children less than five years of age received an influenza vaccine in 2014.

ACIR data indicate that only one to two per cent of children have parents who object to vaccination. This means that the majority of children who are under-vaccinated come from households supportive of immunisation. Experience from other settings indicates these parents are interested in having their children vaccinated and could benefit from assistance to overcome barriers to accessing immunisation services and reminders of when their child is due for vaccinations.

There is strong evidence that immunisation reminder recall systems can increase vaccination coverage rates.[1,2] Immunisation registers are a powerful tool for identifying and reaching out to children overdue for vaccinations. Australia has a comprehensive childhood immunisation register that can facilitate immunisation reminder-recall.

There is also strong evidence that immunisation reminders sent from providers can improve immunisation rates.[3-5] Therefore, efforts should be made to incorporate automated SMS reminders into general practice office management software and evaluate their impact.

Key objectives of the WA Immunisation Strategy

There is also strong evidence that home visits directed towards those unresponsive to other interventions are effective in increasing vaccination rates.[6] Resources permitting, it may be appropriate to conduct home vaccinations for high-risk children.

Opportunistic immunisation refers to checking a patient's immunisation status at every encounter with the health care system and providing vaccinations when indicated. Studies in Australia indicate there are many missed opportunities to catch children up on their vaccination when they are seen at hospitals and emergency departments for unrelated issues.[7-10] Policies set forth by the Australasian College for Emergency Medicine recognise that emergency departments are an area where opportunistic immunisation of the unimmunised can be provided. In an effort to improve and maintain immunisation coverage, other jurisdictions in Australia have formalised policies regarding opportunistic immunisations; it is highly recommended that this approach should be encouraged in WA.

Once children start entering the educational system, school entry checks with follow-up of those who are not fully vaccinated for age have been shown to be an efficient means to achieve high vaccination coverage rates. The effectiveness of school entry requirements has been recognised for many years as demonstrated by their inclusion as a major tenet of the *Immunise Australia: The Seven Point Plan of 1997*.

Currently in WA, parents are required to present their child's immunisation history when they are being enrolled in school. The child's immunisation information is then recorded into School Information System (SIS) at public schools. However, the completeness of immunisation record ascertainment at school entry is believed to be variable and systematic approaches to follow-up of children not fully vaccinated are needed.

To improve immunisation rates among four-year-olds, WA Health and the WA Department of Education (DoE) have been collaborating to develop systems to make sure all children have their vaccination status determined at pre-primary school entry.

Protocols for encouraging and supporting parents to fully vaccinate their children upon school entry should be strengthened and implemented across the state.

Recent experience attempting to follow up children overdue for immunisations has identified that there are unique challenges in reaching children who were under the care of the Child Protection and Family Services (CPFS). To address this, public health and community child health nurses should work with CPFS case workers to ensure that all children in CPFS care receive timely immunisations to safeguard their health.

**Strategies:**

**1a Ensure use of immunisation reminder recall systems at all government clinics**

**1b Promote use of immunisation reminder recall systems in general practice**

**1c Promote opportunistic vaccination of children, particularly children cared for at tertiary health services, as appropriate**

**1d Develop and resource community-based programs in areas needing improvement in partnership with local stakeholders**

**1e In collaboration with WA DoE, strengthen statewide efforts for universal review of immunisation records of students at school entry**

**1f Work with day care centres and other groups to increase the proportion of children up-to-date on their vaccinations**

**1g Work with Child Protection and Family Services to identify children overdue for immunisations and arrange for care**

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1. Briss PA, Rodewald LE, Hinman AR, Shefer AM, Strikas RA, Bernier RR, Carande-Kulis VG, Yusuf HR, Ndiaye SM, Williams SM. Reviews of evidence regarding interventions to improve vaccination coverage in children, adolescents, and adults. The Task Force on Community Preventive Services. Am J Prev Med. 2000 Jan;18(1 Suppl):97-140.

2. Papania M, Rodewald L. For better immunisation coverage, measure coverage better. Lancet. 2006 Mar 25;367(9515):965-6.

3. Hofstetter AM, DuRivage N, Vargas CY, Vawdrey DK, Fisher A, Stockwell MS. Text message reminders for timely routine MMR vaccination: A randomized controlled trial. Vaccine. 2015;33(43):5741-6.

4. Jordan ET, Bushar JA, Kendrick JS, Johnson P{, Wang J. Encouraging influenza vaccination among Text4Baby pregnant women and mothers. Am J Prev Med. 2015;49(4):563-72.

5. Ghadieah AS, Hamadeh GN, Mahmassani DM, Lakkis NA. The effect of various types of patients' reminders on the uptake of pneumococcal vaccine in adults : A randomized controlled trial. Vaccine. 2015;33(43):5868-72.

6. http://www.thecommunityguide.org/vaccines/homevisits.html.

7. http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=2FDD74E8C15EAFFE4E4E1497134A82FF?doi=10.1.1.180.1733&rep=rep1&type=pdf

8. https://www.acem.org.au/getattachment/f6b3ab84-982e-4ff1-a993-0836c47b43a3/Policy-on-Immunisation-in-Emergency-Departments.aspx

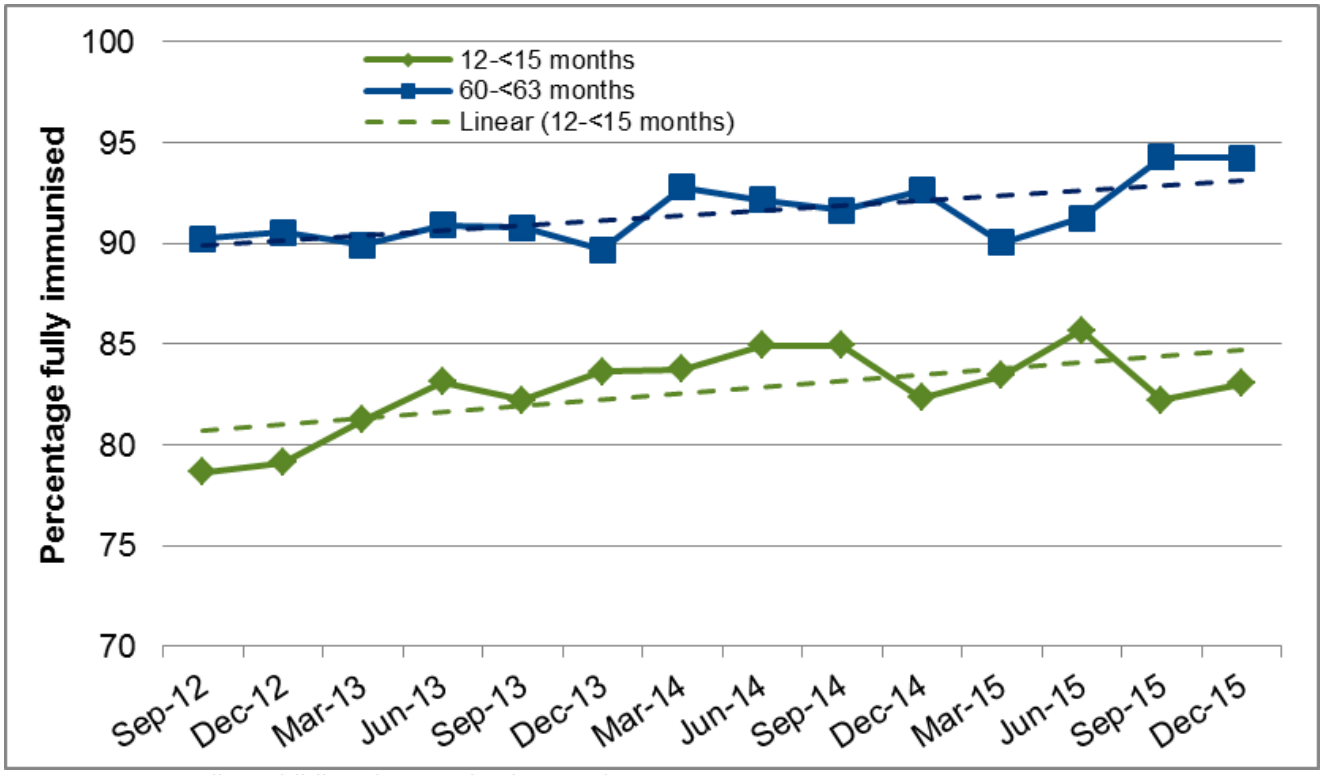
9. http://www.researchgate.net/publication/260211652_Opportunistic_immunisation_in_the_emergency_department_A_survey_of_staff_knowledge_opinion_and_practices

10. Conway S. Opportunistic immunisation in hospital. *Archives of Disease in Childhood*. 1999;81(5):422-425.

## Objective 2: Increase vaccination coverage for Aboriginal people

In recent years, there has been improvement in immunisation coverage for Aboriginal children in WA; this is a reversal of a downward trend in immunisation coverage rates for Aboriginal children at one year of age observed between 2004 and 2011.

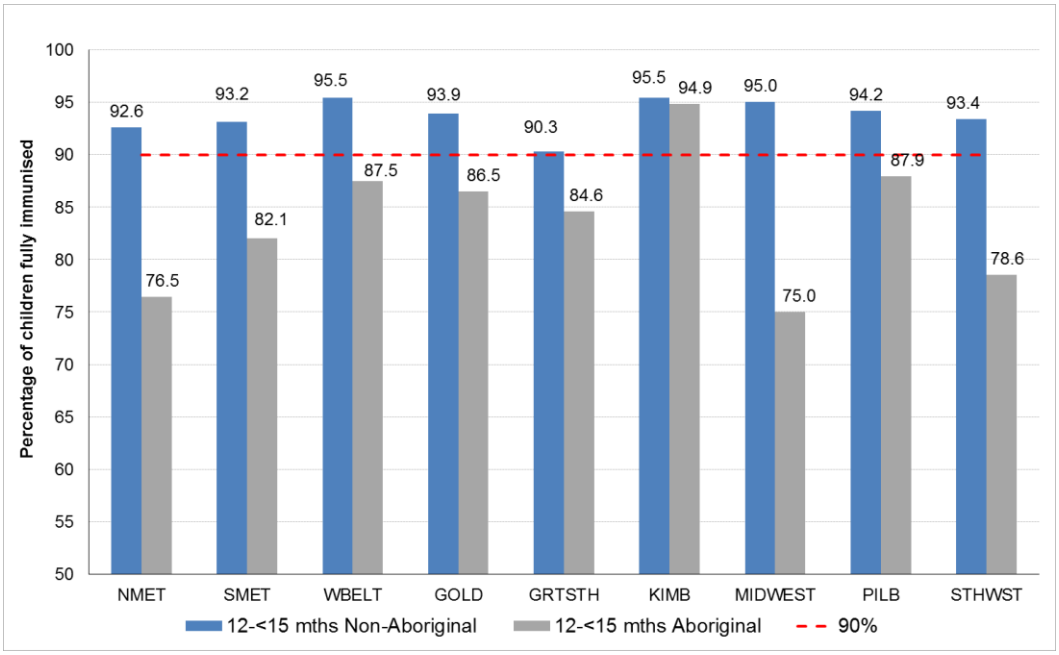
**Percentage of Aboriginal children in Western Australia fully immunised at one and five years of age 2012–2015.**




*SOURCE: Australian Childhood Immunisation Register.*

However, despite recent improvement, there remains a disparity in immunisation coverage between Aboriginal children and non-Aboriginal children in the early years of life. The gap between vaccination rates for Aboriginal and non-Aboriginal children at one year of life is evident in most Area Health Service jurisdictions in WA.

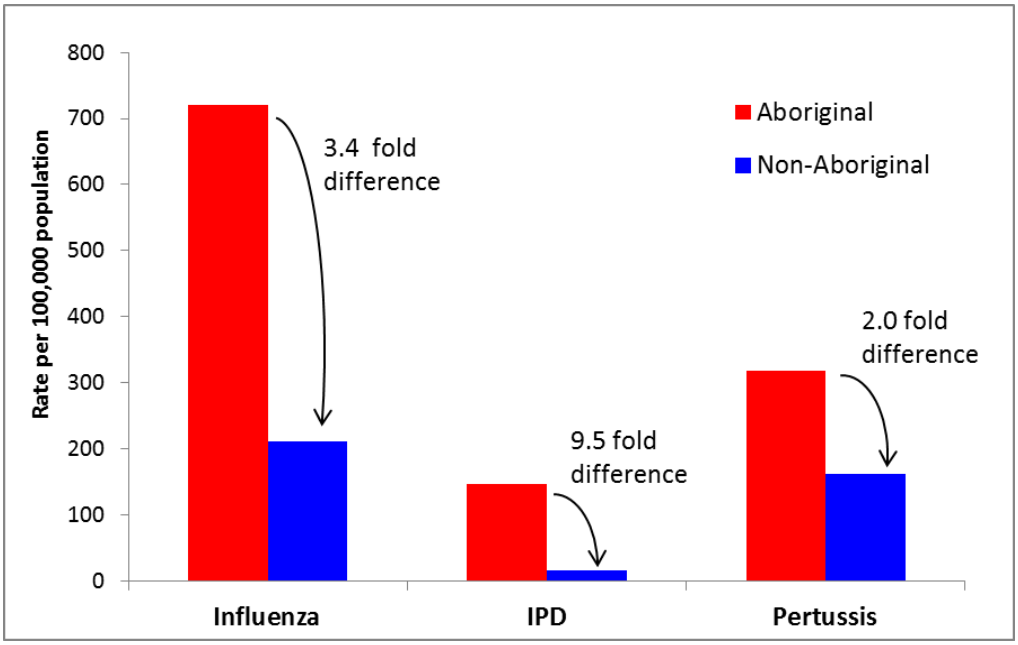
**Percentage of Aboriginal and non-Aboriginal children aged 12-<15 months fully vaccinated, by Area Health Service, WA, ages calculated 31 December 2015**




*SOURCE: Australian Childhood Immunisation Register*

Aboriginal children in WA continue to have higher rates of vaccine preventable disease, such as invasive pneumococcal disease (IPD), pertussis, and influenza.

**Rates of reported invasive pneumococcal disease, pertussis and influenza infection among children aged < 5 years, by Aboriginal status, Western Australia, 2010-2014**




*SOURCE: Western Australia Notifiable Infectious Diseases Database*

Randomised controlled trials have demonstrated that lay health workers, such as Aboriginal health workers (AHWs), "provide promising benefits in promoting immunisation uptake (RR 1.22, 95 per cent CI 1.10 to 1.37; P = 0.0004)."[1]

Several states and territories already have programs in place to train AHWs to vaccinate (South Australia, Queensland, and Northern Territory). In WA and nationally, AHWs holding a Certificate IV in Aboriginal and/or Torres Strait Islander Primary Care Health Care (Practice; HLT43907) are already trained to administer medicines by intramuscular injection, how to manage rare but potentially serious allergic reactions, and adherence to cold chain management of medicines.

Current WA legislation only permits AHWs to vaccinate under direct supervision by a doctor. However, the intent is to develop regulations that will allow AHWs to vaccinate under prior written directions provided by a medical practitioner, creating better access to services for the Aboriginal community. The anticipated benefit of training and empowering AHW to vaccinate is higher immunisation rates in Aboriginal communities, with concomitant reduced mortality and morbidity from vaccine preventable disease.

In addition, the existing immunisation workforce should receive training to ensure service delivery is culturally appropriate. Plain English summaries of vaccination information should be considered to improve communication about immunisations.

**Strategies:**

**2a Monitor vaccination rates among Aboriginal populations to identify potential subsets which may benefit from additional support for immunisations (e.g. children in foster care, those residing in metropolitan Perth)**

**2b Develop and implement systems to follow-up Aboriginal children identified as overdue for vaccinations in the Australian Childhood Immunisation Register**

**2c Work closely with Aboriginal community controlled health services, area health services, WAPHA and other stakeholders to develop culturally appropriate, community-based programs in areas needing improvement**

**2d Resolve legal barriers to vaccination by competent health providers, including Aboriginal health workers (AHWs)**

**2e Train and empower AHWs to vaccinate through expansion of the current AHW Immunisation Competency Training Program**

**2f Support efforts by WA Health to recruit and retain more AHWs in the government workforce**

[1] Lewin S, Munabi-Babigumira S, Glenton C, Daniels K, Bosch-Capblanch X, van Wyk BE, Odgaard-Jensen J, Johansen M, Aja GN, Zwarenstein M, Scheel IB. Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. Cochrane Database Syst Rev. 2010 Mar 17;3: CD004015.

## Objective 3: Increase vaccination coverage for adolescents

School-based vaccination programs are an effective means to deliver immunisations to adolescents. With the assistance of schools, WA Health has successfully conducted school-based vaccination programs for many years.

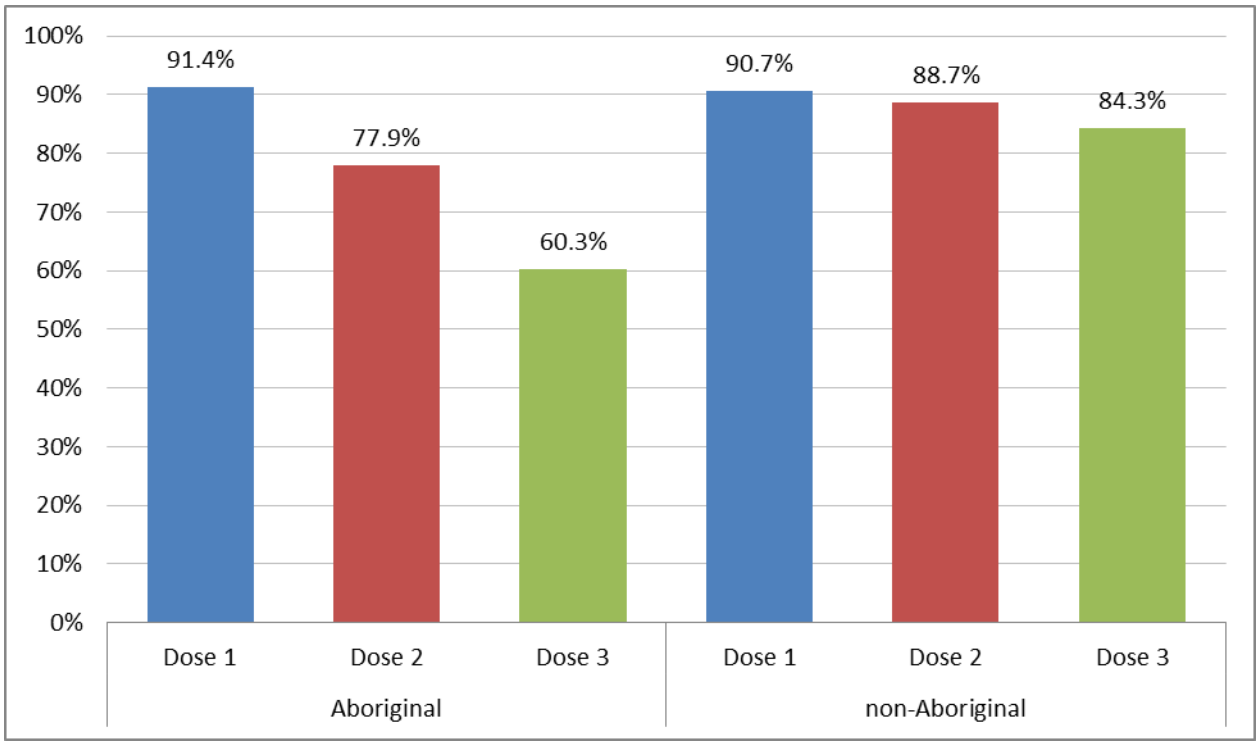
In 2009, WA Health developed and deployed a statewide high school vaccination database which, at present, is the only school-based immunisation register operational in Australia. This database enables WA Health to accurately determine vaccination coverage levels among students and follow-up of students who have missed doses of vaccine in the school setting.

Analysis of the most recent full-year of data (i.e. 2014) reveals that 87 per cent of all Year 8 students in WA received a diphtheria-tetanus-pertussis vaccine (dTpa) and 76 per cent completed all three doses of the human papilloma virus (HPV) vaccination series. While these figures compare favourably with coverage achieved in other Australian jurisdictions, there is still room for improvement.

The vast majority (>90 per cent) of adolescents whose parents return a consent form receive at least two doses of HPV vaccine. Improvements to the consent process which facilitate a higher rate of return could promote even better immunisation coverage for adolescent children in Western Australia.

Of concern is the large disparity in HPV vaccine series completion between Aboriginal and non-Aboriginal adolescents in WA. As shown in the figure below, there is a six per cent decline in the proportion of non-Aboriginal students who receive dose 1 and dose 3 of the HPV vaccine series. This drop-off is more than 30 per cent for students identified as Aboriginal. Series completion may be associated with school attendance.

**Percent of all Year 8 students vaccinated with 1-3 doses of HPV vaccine 2014 school year**




*SOURCE: WA School-based Immunisation Register.*

Strategies that might be implemented to improve vaccine series completion include adding an additional vaccination session at schools with high drop-off rates, facilitating catch-up vaccinations administered outside the school setting, and sending immunisation reminder/recall messages to students and/- or parents. Timely entry of immunisation data into the database is also necessary in order to ensure adolescents' vaccination records are current and to facilitate appropriate catch-up, when necessary.

Students who miss vaccine doses at school can be vaccinated through their general practitioner (GP), local council, or Aboriginal Medical Service (AMS). It is important, however, that adolescent vaccinations given outside the school setting get recorded in the statewide school-based database so that the student's vaccination record will be accurate.

**Strategies:**

**3a Develop and distribute promotional material appropriate for students and parents**

**3b Review and improve high school consent form and processes**

**3c Enhance and maintain the statewide school-based immunisation database to monitor vaccine uptake and facilitate recall for vaccination**

**3d Promote timely entry of vaccination information into the statewide school-based immunisation database to ensure accuracy of vaccination records and facilitate appropriate catch-up**

**3e Support general practitioners, AMSs, and local councils to provide vaccinations to high school students when the child is not vaccinated in the school setting**

**3f Develop procedures that ensure vaccines given to high school students outside the school setting are captured in the statewide school-based immunisation database**

**3g Investigate opportunities to improve vaccination series completion and resource cost-effective measures**

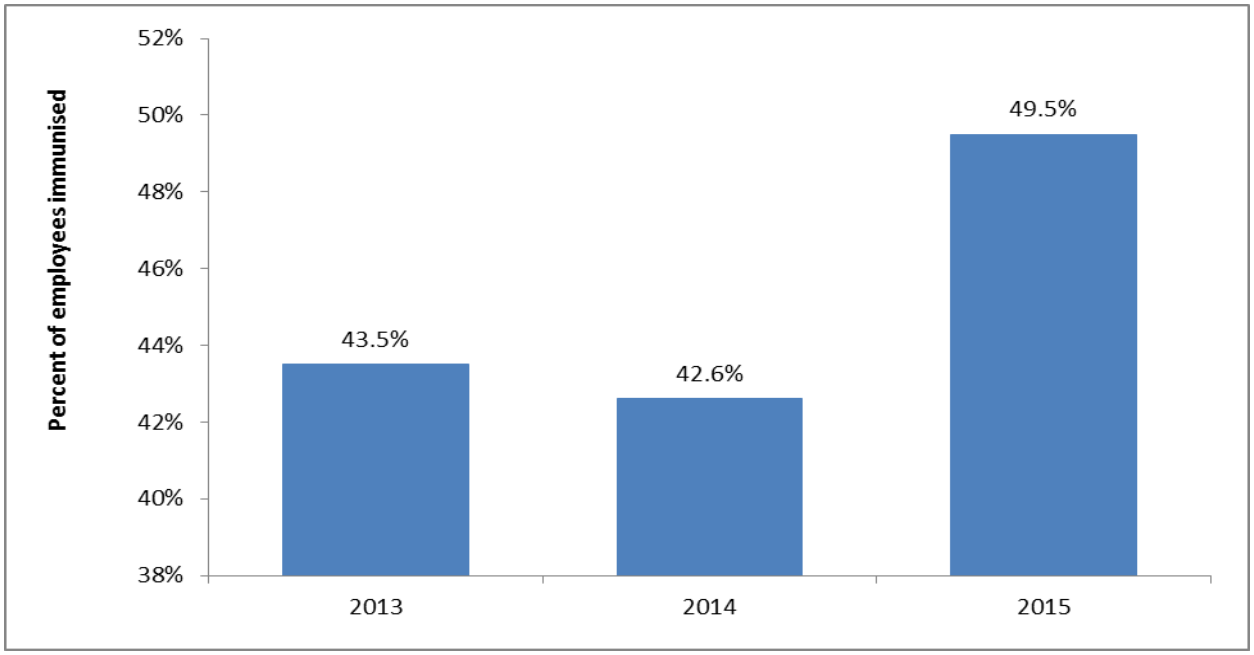
## Objective 4: Increase vaccination coverage for adults

Over the last few years, success in improving immunisation services for adults in WA has been mixed.

WA's influenza vaccination program for pregnant women has improved year-on-year and is now achieving relatively high coverage. In addition, the new pertussis vaccine in pregnancy program started strong and is on track to produce immunisation uptake rates on par with those of more mature programs overseas.

On the other hand, annual surveys of adults > 65 years of age indicate coverage for seasonal influenza vaccination has only modestly improved and has not reached the 70 per cent target. Seasonal influenza vaccine coverage of WA Department of Health staff is even lower, despite access to state-funded vaccine and on-site immunisation services in most clinical work settings.

**Percentage of WA Health staff who received a seasonal influenza vaccine between April and September 2013–2015**




*SOURCE: Western Australia Department of Health Staff Influenza Vaccination Database*

General practitioners play an important role in promoting vaccination during adulthood and should take every opportunity to identify and vaccinate eligible individuals. The administration of influenza vaccine to individuals at risk of complications of infection is the single most important measure in preventing or attenuating influenza infection and preventing mortality. Persons at increased risk include all individuals ≥65 years of age, Aboriginal people ≥15 years of age, pregnant women and individuals with certain underlying medical conditions (e.g. heart disease, severe asthma, diabetes). Reminder- recall systems have been shown to be effective in promoting influenza vaccines to adults at risk of severe influenza infection and could be used in Western Australia to improve adult vaccination coverage.[1]

Health care workers (HCWs) should lead by example; maintaining immunity in the health care worker population helps prevent transmission of vaccine-preventable diseases between health care workers and patients. Medical facilities in WA are encouraged to formulate and implement a comprehensive immunisation policy for all health care workers. Each worker should be

individually assessed for their vaccination needs, with recommended vaccinations provided by the employer.

Many VPDs are endemic and/or epidemic in the countries of origin and transit for refugees and humanitarian entrants. In some instances, adult immigrants entering Australia, either as permanent residents or temporary visa holders, do not have adequate immunity against one or more diseases for which vaccination is recommended in Australia. Catch-up immunisation is recommended for all refugees/migrants, unless reliable written documentation of previous immunisation is provided. Catch-up vaccinations for refugees and migrants are not currently provided through the National Immunisation Program (NIP), so a program has been implemented to provide state funding for vaccination of humanitarian entrants. Immunisation providers can now order vaccines for humanitarian entrants through the WA Health online vaccine ordering website, provided they include an authorisation code supplied to them by the Humanitarian Entrant Health Service (HEHS). Providers report vaccines administered to the HEHS.

The goal of the adult immunisation effort over the next few years will be to work with partners, especially the WA Primary Health Alliance and the WA Chapter of the Royal College of General Practitioners, to enhance immunisation services for pregnant women, immigrants entering WA under humanitarian visa programs, and persons at increased risk of serious illness from influenza.

**Strategies:**

**4a Develop and disseminate health promotion materials which encourage adult vaccination, including recommended antenatal vaccinations**

**4b Improve access to adult immunisation services for older and medical at-risk adults and pregnant women**

**4c Establish robust procedures to assess vaccine uptake in older and medically at-risk adults and pregnant women**

**4d Promote use of immunisation reminder systems for at-risk adults**

**4e Improve promotion of influenza vaccine and provide ready access to vaccinations for government-employed health care workers (HCWs)**

**4e In collaboration with hospital infection control practitioners and/or occupation health and safety officers, and the Healthcare Associated Infection Unit, CDCD, establish and enforce policies for vaccination of HCWs in public health care institutions**

**4f Work with partners to enhance programs encouraging vaccinations for emergency workers, child care workers, travellers, immunosuppressed individuals, men who have sex with men, and prisoners**

[1.] Jordan ET, Bushar JA, Kendrick JS, Johnson P, Wang J. Encouraging influenza vaccination among Text4Baby pregnant women and mothers. Am J Prev Med. 2015;49(4):563-72.

## Objective 5: Improve support for immunisation providers

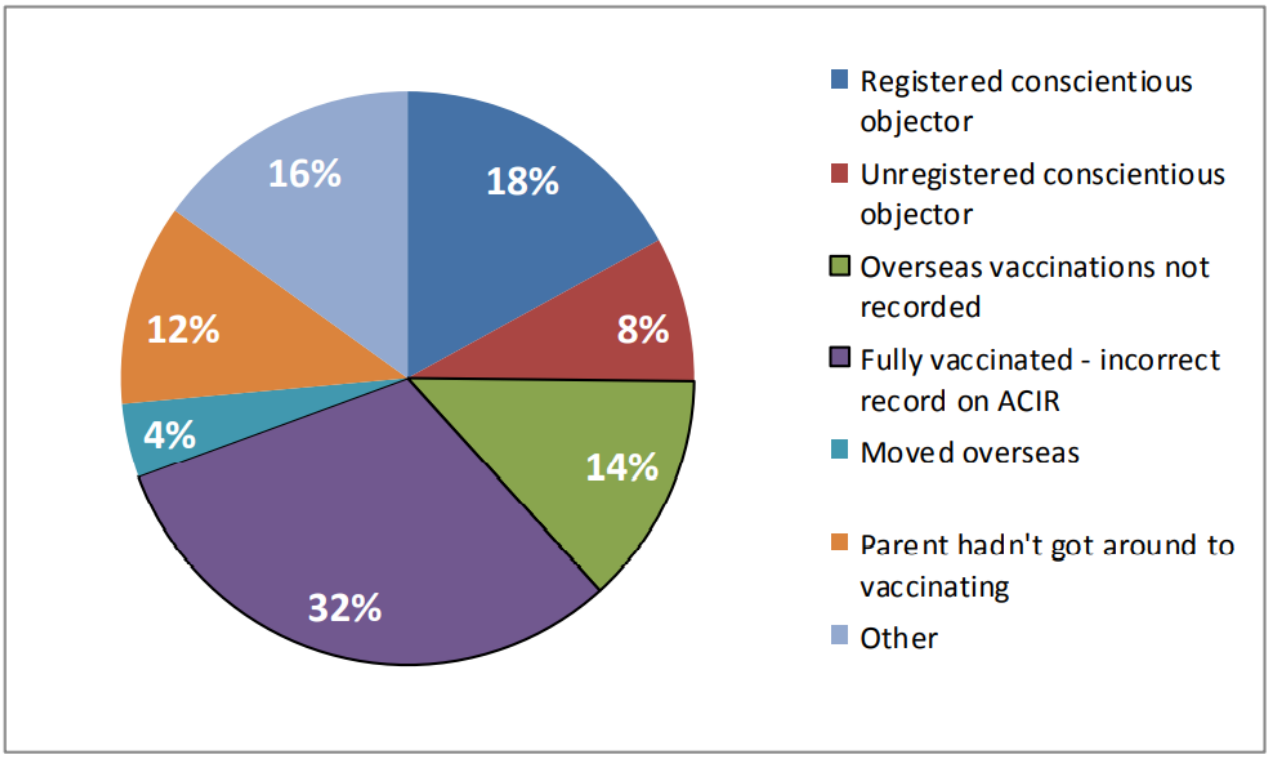
The Department of Health has been investigating reasons why children in WA are not fully vaccinated to try and determine how we might improve immunisation services and attain higher rates of vaccination coverage.

During 2014–2015, parents of 267 children living in the Perth metropolitan area were interviewed to ascertain why their children were not fully vaccinated according to data in ACIR.

The single most common explanation was that the Australia-born child was fully vaccinated but the vaccinations were not recorded on the ACIR; this accounted for 32 per cent of all overdue children whose parents were interviewed. Another frequent explanation was that the child had moved from overseas and vaccinations administered previously overseas had not been recorded on the ACIR; this accounted for 14 per cent of the overdue children studied.

Taken together, these data suggest that almost half of the children on overdue lists produced using ACIR may in fact be fully vaccinated, but simply have incomplete data recorded in ACIR. Another four per cent of the children assessed no longer lived in Australia and should be removed from lists of children in WA overdue for vaccination.

**Reasons why children residing in Perth metropolitan area are not fully vaccinated, 2014–2015**




*SOURCE: Western Australia Department of Health interviews with parents*

If we apply the reasons identified in this research for why children were on the overdue lists to the ~ 10 per cent of children in WA who are recorded as not fully vaccinated according to the ACIR, it is clear that more complete data capture would substantially increase WA's reported vaccination rates. More importantly, comprehensive cleaning of ACIR immunisation data will help ensure that children's immunisation history is accurate and can be relied upon for making future immunisation-related decisions (e.g. 'Does this child need another dose of vaccine?' or 'Does this child need to be excluded from school during an outbreak?').

There are four general reasons why a child's immunisation history might be incomplete in ACIR:

1. The child may inadvertently have more than one unique record in ACIR and thus, their vaccinations are spread across multiple unlinked records; this can occur when there are errors or changes in the name, date of birth, or Medicare number of the child.
2. The child's vaccinations might have been given by a previous provider who did not transmit them to ACIR; the current provider may not know how to add prior immunisation records into ACIR or they may be unwilling to document immunisations given by another provider.
3. There may have been an undetected software glitch in transmitting immunisation records to ACIR; many GPs rely on practice management software to automatically communicate immunisation records to ACIR and occasionally this process malfunctions.
4. The child may have received some vaccinations overseas and the records need to be translated before they can be entered into ACIR.

It is unreasonable to expect that practice nurses and GPs will necessarily possess the required knowledge or time to translate overseas vaccination documents or merge duplicate records in ACIR. Therefore, the Department of Health is proposing to provide greater support to GPs and other immunisation providers to help resolve situations where a child seems to have been fully vaccinated but this is not reflected in their ACIR records. This is important because incomplete documentation can affect health care provided to the child, immunisation coverage estimates for the State, as well as parental eligibility for federal financial benefits.

Providers may also benefit from assistance in maintaining stocks of the National Immunisation Program vaccines, guidance on potential cold chain breaches, and instruction on which cohorts are eligible for government-procured vaccines. 'Vaccine wastage' occurs when vaccine doses must be discarded because of exposures to temperatures outside the recommended range or because they have exceeded their expiration date. 'Vaccine leakage' occurs when providers administer a government-funded vaccine to a person not in an eligible cohort (e.g. government-procured hepatitis A vaccine administered to an adult international traveller when it is only funded under the NIP for Aboriginal children).

WA Health has now fully implemented a statewide on-line vaccine ordering system. Ongoing analysis of provider vaccine ordering patterns can facilitate detecting vaccine requisition errors and order aberrations that may provide opportunities for targeted training on cold chain management and the patient cohorts eligible for specific vaccines.

**Strategies:**

**5a** **Establish systems to assist providers and parents to resolve issues surrounding incomplete capture of immunisation records in the Australian Childhood Immunisation Register (ACIR)**

**5b** **Routinely produce and review immunisation overdue lists for providers in order to assist in identifying children in need of catch-up immunisations**

**5c** **Identify appropriate resources to assist immunisation providers in handling records of immunisations given overseas**

**5d** **Work with practice managers, practice management software vendors, and other stakeholders to develop and implement systems that ensure complete capture and transfer of immunisation records to ACIR and other immunisation registers that may be deployed in Australia**

**5e** **Maintain a centralised statewide electronic vaccine ordering system**

**5f** **Educate providers on changes to eligibility for government-procured vaccines**

**5g** **Review vaccine ordering profiles for providers to facilitate identification of vaccine order errors and aberrations**

**5h** **Promote comprehensive cold chain breach reporting, supported with education on responding to potential breaches**

## Objective 6: Increase immunisation workforce capacity

Skilled, competent and confident immunisation providers are the foundation of an efficient statewide immunisation program. WA Health maintains its strong focus in ensuring a high calibre of immunisation workforce in this state through offering an immunisation course to all providers throughout the state. The course was developed by South Australia Health with input from WA Health and is offered online. Web access ensures that the training that providers receive is uniform regardless of their geographic location in WA. The 24/7 availability of the course also allows for prompt registration and flexible enrolment times, which enables providers to achieve certification more rapidly in order to meet the requirements of the Vaccine Administration Code (the Code) and begin administering vaccinations. The on-line approach to immunisation training has been successfully completed by 1,240 vaccination providers through the end of 2015.

In addition to this course, WA Health has historically offered annual updates, a requirement for nurses administering vaccines under the Code, in a face to face format. In April 2014, WA Health launched the online immunisation updates, which have been completed by 1,424 immunisation providers since inception. The immunisation updates can be accessed at no cost by both private and government providers at a time suitable for them. The benefit of having unlimited access to the annual training modules is that it offers providers flexibility with their learning experience. Although nurses are the largest users of the update, other providers such as pharmacists and paramedics also access the training updates.

WA Health is embarking on a new project to develop an immunisation course specific for midwives as part of the ongoing effort to increase immunisation workforce capacity. Empowering and encouraging midwives to educate and vaccinate pregnant women is an important step in ensuring a larger proportion of pregnant women and their newborns are protected against serious vaccine preventable diseases. It is anticipated that the immunisation training course for midwives will begin intakes by mid-2016.

In addition to the above strategies, it would be prudent to facilitate immunisation education as part of the undergraduate nursing curriculum, so that nurses enter the workforce already competent in immunisation theory and practice.

WA regulations will soon be amended to allow for structured prescribing arrangements (SPAs) for immunisations. SPAs will allow nurses to vaccinate under prior written directions provided by their organisation or medical practitioner, as is commonly done in the United Kingdom [1] under Patient Group Directions and in the United States [2] under ‘standing orders’. This change in WA legislation and regulations should significantly increase the access to immunisation services in WA.

**Strategies:**

**6a Produce timely and relevant annual immunisation training updates**

**6b Support ongoing participation in the Western Australia/South Australia collaborative training program**

**6c Develop a midwifery-specific training program to enhance access to immunisation during antenatal care**

**6d Work with nursing schools in WA to incorporate immunisation training into existing training pathways**

**6e Explore creating immunisation training as part of continuing professional development for GPs and other medical practitioners**

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1. http://www.medicinesresources.nhs.uk/en/Communities/NHS/PGDs/FAQs/What-is-a-Patient-Group-Direction-PGD/

2. http://www.thecommunityguide.org/vaccines/standingorders.html

## Objective 7: Improve VPD surveillance and outbreak response

It is critical that the Western Australia Department of Health continually assess the impact of immunisations administered through public vaccination programs to guide public health practice. Several systems are available in WA to monitor disease incidence and vaccine effectiveness. These systems include:

**The Sentinel Practitioners Network of Western Australia – SPN(WA)**

Initiated in 2007, SPN(WA) is a collaborative effort between the Communicable Disease Control Directorate (CDCD), PathWest (QEII Laboratory Medicine WA) and the Australian Sentinel Practice Research Network (ASPREN). SPN(WA) combines clinical encounter data with relevant laboratory information to measure the impact of immunisations for several vaccine preventable diseases (i.e. varicella, rotavirus and influenza). Each week, general practitioners (GPs) participating in SPN (WA) record numbers of patients seen with and tested for influenza-like illness (ILIs), infectious gastroenteritis, chickenpox and shingles. Clinical pathology laboratories forward specimens collected by SPN (WA) GPs to PathWest Medical Laboratory WA at QEII Medical Centre for testing. The data collected for WA is reported to stakeholders in a weekly email, Virus WAtch, which summarises current activity of viruses responsible for influenza-like illness, viral gastroenteritis and viral rashes. The system has attained good geographic representation across WA with the recruitment of more regional and remote practices over the past three years.

**The Emergency Department Sentinel Surveillance System**

In 2007 the Emergency Department Sentinel Surveillance (EDSS) system was established, using data from the Emergency Department Information System (EDIS). EDIS provides standardised coding data for a range of discharge diagnoses at ten emergency departments in Perth. Standardised diagnosis coding is used for each patient discharge at nine government-funded Perth metropolitan EDs and one regional ED provide. A number of diagnosis codes are used to report on three conditions relevant to vaccination programs, i.e. respiratory viral presentations, infectious gastroenteritis and varicella. EDIS data are made available to CDCD for analysis on a weekly basis and this information is reported in Virus WAtch each week.

**The Western Australia Notifiable Infectious Disease Database**

The Western Australia Notifiable Infectious Disease Database (WANIDD) collects information on notifiable infections in Western Australia, including twelve vaccine-preventable diseases. WANIDD provides standardised data for weekly reporting of pertussis, influenza, mumps, measles, rubella, Haemophilus influenzae, pneumococcal disease, varicella, meningococcal disease, rotavirus and hepatitis A and B. Linkages between WANIDD and other data sources have been established to better understand the severity of infections and the impact of vaccination. Over the next several years, WA will continue to maintain the quality, representation and timeliness of the data produced by the existing surveillance systems. It would also be useful to promote linkage of vaccine administration data currently recorded in ACIR to data captured by emergency departments and hospitals in WA.

**'Seasonal Influenza Vaccination' of the Canning Data Extraction Tool**

WA DOH has partnered with a private organisation to create a data extraction tool for monitoring influenza vaccination and influenza vaccine effectiveness in general practices. The 'Seasonal Influenza Vaccination' module within the Canning Data Extraction Tool uses

de-identified data to create estimates of the proportion of patients who received a seasonal influenza vaccine and the effectiveness of influenza vaccines in a given season. The tool can also be used at the practice-level to inform practices of the proportion of their patients who received an influenza vaccine each year. Since 2012, the tool has been installed in over 110 practices across WA. Over the next several years, WA Health will work with Arche Health to expand the capability of data extraction tools for vaccine preventable diseases and promote their use in general practice.

**Strategies:**

**7a Continue to improve the quality and representativeness of the of data collected through SPN(WA)**

**7b Explore further integration of the SPN(WA) and national surveillance programs**

**7c Investigate ways to collect vaccination information in VPD surveillance systems and linking ACIR data to emergency department and hospital discharge records**

**7d Develop and promote tools to automate data extraction from existing practice management software to assess vaccine coverage and estimate effectiveness**

**7e Ensure timely accurate data collection, reporting, and response to VPD outbreaks**

**7f Support projects which evaluate the impact of vaccines in preventing VPDs in Western Australia**

## Objective 8: Improve vaccine safety monitoring

In 2010, WA suspended paediatric influenza vaccinations in response to an increase in severe febrile adverse events among children. The WA Minister for Health subsequently requested a review of the public health response to the incident, chaired by Professor Bryant Stokes.

The *Ministerial Review into the Public Health Response into the Adverse Events to the Seasonal Influenza Vaccine* on adverse events following administration of Fluvax® influenza vaccine in 2010 made numerous recommendations. One of the key recommendations was to develop a web-based, user-friendly reporting system for adverse events following immunisation. In response, in 2011, the Western Australia Department of Health launched the WA Vaccine Safety Surveillance (WAVSS) system. WAVSS is the only system in the country for monitoring the safety of vaccines that allows both the public and providers to report suspect adverse reactions to vaccines online 24 hours a day 7 days a week.


In addition to improving passive adverse event following immunisation (AEFI) reporting, *The Ministerial Review into the Public Health Response into the Adverse Events to the Seasonal Influenza Vaccine* also recommended that an "accurate and timely mechanism… be developed to record the number of vaccinations including product name and batch number given… so that the denominator can be used efficiently to measure AEFIs and assess their incidence in real time."

To help achieve this, WA Health developed and assisted in the development of several complementary systems including:

- general practice tools that use SMS-technology to actively monitor patients vaccinated in general practices for possible AEFI in near real-time (SmartVax)
- active ongoing monitoring of children < 5 years of age who receive seasonal influenza vaccines each year (FAST)
- active monitoring of pregnant women for potential AEFI following antenatal influenza and pertussis vaccines (FastMum).
- active monitoring of newly introduced influenza vaccine formulations (FASTHealth).

These systems take advantage of new technologies which have significantly improved the scope and timeliness of AEFI data collection, creating opportunities to closely monitor specific, potentially vulnerable patient cohorts, (e.g., pregnant women).

Other key developments in improving AEFI surveillance in WA and response include:

- establishment of follow-up clinics to assess persons who have reported a potentially serious AEFI, in collaboration with tertiary health services
- maintenance of an email-based system for rapid communication of important vaccine safety information to immunisation providers in WA
- collaboration with the Therapeutic Goods Administration to ensure that suspected vaccination side effects reported to Therapeutic Goods Administration by concerned individuals or parents in WA are captured in the statewide reporting system and managed by WA clinicians
- establishment and continued support of the WA Vaccine Safety Advisory Committee (WAVSAC). WAVSAC provides advice to the Director General of WA Health and the WA Minister for Health on matters relating to vaccine safety, as required.

**Strategies:**

**8a Maintain and improve the WA Vaccine Safety Surveillance (WAVSS) system**

**8b Periodically and objectively assess the quality of WAVSS to determine if any changes are necessary**

**8c Establish mechanisms for routine interpretation of vaccine safety information to allow rapid public health action in the event of a suspected vaccine safety issue**

**8d Maintain support for the WA Vaccine Safety Advisory Committee**

**8e Ensure staff resources required to sustain comprehensive AEFI detection and response capability in WA**

**8f Maintain support specialist clinics to address reported adverse events following immunisation**

**8g Assist in the implementation, evaluation, expansion of AEFI surveillance programs that successfully incorporate new technologies**

## Objective 9: Improve communication with stakeholders and the community

Providing wide-ranging immunisation services to a State as large and diverse as WA is a challenging and complex task. Achieving and maintaining high rates of vaccination coverage requires the ongoing commitment of many stakeholders including general practitioners, Aboriginal controlled community health organisations, the WA Primary Health Alliance, and Child and Adolescent Health Services, Country Area Health Services, Area Health Service Chief Executive Officers, Public Health Units, and local government councils.

The success of the immunisation program depends on coordination between all stakeholders. WA Health aspires to develop a clear definition of the roles and responsibilities of all the agencies involved in providing immunisation services. The aim is to avoid duplication of services, provide direction and identify key organisations that are accountable for ensuring WA achieves its immunisation program objectives. The outcome of this effort will be more comprehensive, more efficient, and more equitable immunisation service delivery in WA.

To facilitate communication between stakeholders and foster a shared vision for immunisation services, WA Health has a robust and inclusive Immunisation Strategy Implementation Steering Committee (WAISISC). Communication systems that permit timely dissemination of important immunisation information directly to providers who administer vaccines, whether in private practice or government service, are also important.

Among health care providers and administrators, there is widespread recognition that immunisations are effective at protecting the health of our population and ultimately cost saving for the health care system. State-of–the-art vaccination programs must therefore be a key component of quality health care service delivery in WA. However, there are often competing demands for health care services. In this environment, implementing the principle that ‘what gets measured gets done’ may be helpful to ensure immunisations remain a high priority.

It is in this spirit that CDCD will help ensure that Health Service Boards, Health Service CEOs, CACH, WACHS and others will receive regular reports on vaccination coverage for children from the communities they serve. The WA Primary Health Alliance will also be encouraged to continue promoting use of vaccine coverage reports to assess and improve service among practitioners in the private sector.

In addition to fostering good communication between immunisation service providers it is imperative that WA Health ensure that consumers can easily access high quality information regarding the risks and benefits vaccination. One of the recommendations of *The Ministerial Review into the Public Health Response into Adverse Events* was that more information about vaccines should be provided “to the public, to enable informed decisions about the vaccine before administration.”

Towards this end, WA Health is working to expand the number of immunisation resources available in languages other than English. At present school based immunisation program information is being translated into 17 different languages: Arabic, Croatian, Dari, Tagalog, Hungarian, Italian, Malay, Polish, Swahili, Vietnamese, Urdu, Hindi, Korean, Russian, Romanian, Simplified Chinese (Mandarin and traditional Chinese) and Burmese. These translated ‘Fact Sheets’ are being placed on the DoH website for easy access by consumers and professionals.

Formative research conducted by the Telethon Kids Institute indicates that the optimal time to provide education on childhood immunisations to parents is while the mother is pregnant. This is because most parents have already decided whether they are intending to vaccinate their before the birth. The advent of recommendations for women to be vaccinated against influenza and pertussis during pregnancy underscores the need to provide immunisation education as part of antenatal care.

**Strategies:**

**9a** **Ensure regular meetings with the WA Immunisation Strategic Advisory Committee and consultation with key partners including WAPHA, RACGP, AMA, Area Health Services (SMHS, NMHS, EMHS, WACHS, CACHS), public health teams/units, and local government**

**9b** **Maintain and enhance comprehensive mechanisms for timely communication of information to immunisation providers**

**9c** **Provide support to the non-government organisations that promote quality communication to consumers regarding vaccines and immunisation services**

**9d** **Provide key stakeholders with regular reports on vaccination coverage rates for their review and action**

**9e** **Collaborate with providers in identifying any areas for improvement in the immunisation consent process**

**9f** **Increase immunisation resources available for non-English speaking consumers**

**9g** **Develop and disseminate materials which help consumers better assess the risks and benefits of immunisation (e.g. infographics, short videos)**

**9h** **Develop processes to provide immunisation education to expectant parents as part of routine antenatal care**

## Objective 10: Encourage and support applied immunisation research

WA has an exemplary track record for contributing to medical science and applied public health practice in the area of immunisations and vaccine preventable disease. One of the major factors underpinning the success of these endeavours is the high degree of collaboration between multiple stakeholders across various departments and agencies.

Examples of the high-quality outputs from this teamwork include publications on:

- the impact of 'pertussis cocooning' on disease incidence in children < 6 months of age
- the acceptability and utility of using text messaging to monitor vaccine safety and enhance disease surveillance.
- factors associated with improved uptake of influenza vaccine during pregnancy
- the effectiveness of seasonal influenza vaccines in children < 5 years of age.

The research goals for the WAIS 2016–2023 would be to maintain and strengthen WA collaborations in order to advance medical and public health practice. Important findings from applied research will be communicated to immunisation stakeholders for consideration and action, when indicated.

**Strategies:**

**10a Collaborate with Vaccine Trials Group, Telethon Kids Institute, PathWest, the National Centre for Immunisation Surveillance and Research, GPs and other stakeholders to foster applied immunisation research for the benefit of Western Australians, the nation and the global community**

**10b Support immunisation research which identifies risk factors for under-immunisation, particularly in at-risk groups**

**10c Support immunisation research which evaluates the value of immunisation programs in preventing VPD disease in Western Australia**

# 7. Key Performance Indicators

Key performance indicators for implementation of the Western Australian Immunisation Strategy 2016–2023 are:

| Indicator | Measurement Tool | Target achievement to date |
|---|---|---|
| Vaccination coverage rates in WA children 12-15 months old consistently > 90% | Australian Childhood Immunisation Register | Ongoing; quarterly |
| Vaccination coverage rates in WA children 24-27 months old consistently > 90% | Australian Childhood Immunisation Register | Ongoing; quarterly |
| Vaccination coverage rates in WA children 60-63 months old consistently > 90% | Australian Childhood Immunisation Register | Ongoing; quarterly |
| Influenza vaccination coverage in persons 65 and older > 70% | WA Health and Wellbeing annual survey | 2017 |
| Vaccination coverage rates among Aboriginal children equal to those of other children | Australian Childhood Immunisation Register | Ongoing; quarterly |
| HPV 3-dose vaccination coverage rates among adolescents > 70% | School-Based Immunisation Database | Ongoing; annually |
| Vaccination coverage rates among pregnant women > 60% | Annual surveys and the Midwives Notification Database | Ongoing; annually |

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