

Post Implementation Review of the *No Jab, No Pay* 2015 Budget Measure – Final Report

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Research Team

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Glossary

ACIR Australian Childhood Immunisation Register

AIR Australian Immunisation Register

CCB Child Care Benefit

CCR Child Care Rebate

COs Conscientious Objectors

DET Department of Education and Training

DHS Department of Human Services

Health Department of Health

DSS Department of Social Services

ES External stakeholders

FTB Family Tax Benefit

GS Government stakeholders

NJNP No Jab, No Pay

VOs Vaccination Objectors

MIA Maternity Immunisation Allowance

Executive summary

The Australian Government Department of Social Services (DSS) commissioned the Social Policy Research Centre (SPRC) at UNSW Sydney to undertake a Post Implementation Review (PIR) of the *No Jab, No Pay* 2015 Budget measure (the Measure). The intended outcomes of this review were:

- to determine whether the Measure was implemented effectively by measuring successes and challenges that have been encountered in the first 6–12 months of the Measure's implementation
- to provide a framework for the subsequent impact evaluation.

The PIR was undertaken to assess implementation successes and challenges and also to inform the development of the impact evaluation framework. The PIR was guided by several key questions:

Policy design	Has implementation been consistent with the Measure's policy design? If there have been any deviations from the original design, have these been positive or negative in nature?
Issues and risks	What successes and challenges (including design, system, data, communications, and uptake of immunisation by the target populations) were encountered in implementing the Measure?
Governance	Did governance and decision-making mechanisms help or hinder the successful implementation of the Measure?
Service delivery	Has the service delivery model resulted in impacted recipients having positive or negative encounters?
Communications	Did the communication strategy and Departmental communication plans successfully support the implementation of the Measure? Did the Communication Working Group effectively manage communication issues as they arose?
Management information	How has the policy and system design impacted upon the data available to date regarding rates of immunisation and eligibility for both family assistance (Family Tax Benefit Part A supplement) and child care payments?

The methodology for the PIR included:

- a document review of publicly available and internal documents from the four departments involved in implementing the Measure: DSS, Department of Human Services (DHS), Department of Health (Health) and Department of Education and Training (DET)

- a data scoping exercise
- qualitative stakeholder consultation with 17 government and external stakeholders
- a workshop with departmental staff involved in implementing the Measure.

The data gathered through these sources were analysed and synthesised in order to answer the research questions guiding the PIR.

Policy design

The rationale of successive governments in placing mutual obligations on recipients of social security and family assistance payments is based on the concept of encouraging behaviours beneficial to individuals and the broader community. Conditionality is a key priority of the government, and this was reflected in the design of the No Jab, No Pay policy in setting out specific immunisation requirements that a child must meet to be eligible to receive a benefit or payment. The policy's intent sought to reinforce the importance of immunisation as a measure to 'protect public health' and highlight that the choice made by families to not immunise children should not be supported by taxpayers in the form of government benefits.

The policy was designed to extend existing immunisation eligibility requirements for child care and family payments through three key mechanisms:

- removal of vaccination objection as a valid exemption category
- requirement for individuals up to 20 years of age to be fully vaccinated to receive family payments
- removal of the 63-day initial grace period for new child care claimants to either get up to date with immunisations or commence a catch-up schedule.

The review found that implementation was consistent with the Measure's policy design. Activation of the three mechanisms was supported by the detailed implementation plans from DSS and DHS, with the latter outlining the expansion of the Australian Childhood Immunisation Register (ACIR) to the Australian Immunisation Register (AIR). Implementation was also supported by the complementary measures introduced by Health.

Most stakeholders felt that the implementation of the Measure had been consistent with the policy's design. While the policy had undergone some minor changes since it was originally announced, these were generally carried out well before the Measure was launched and did not constitute significant deviations from the policy design.

Two key implementation challenges concerned the need to:

- extend the payments beyond the initial grace period for existing recipients to prevent parents from losing access to child care payments when their child's immunisations were up to date but the ACIR records did not reflect this (due to delays in states/territories updating the ACIR)

- amend the continuous/rolling catch-up anomaly which could have enabled parents to delay vaccination indefinitely and continue to receive family payments.

Both of these were addressed promptly and appear to have prevented any negative impacts for recipients, and supported the policy's initial design.

A further challenge identified by stakeholders concerned the eight-month timeframe between the policy announcement and its implementation. Key implementation challenges included the changes to the ACIR, the uncertainty around when the legislation would pass and limited timeframes for engaging and communicating with stakeholders. The tight timeframe appears to have presented difficulties for health service providers at state and territory level who were responsible for immunising children.

Issues and risks

A number of procedures were put in place to identify issues and risks that could negatively affect implementation of the Measure. These included:

- an issues register and risk log maintained by DSS
- an issues register maintained by DHS
- the establishment of an Interdepartmental Committee (IDC) with Senior Executive staff and an Executive Level working group were also key to identifying, discussing and strategising to mitigate issues and risks.

Identified challenges with respect to policy design included: calls in social media for a High Court challenge to the legality of the Measure; feasibility of using the Secretary's Exemption to address challenging clinical circumstances; fraudulent medical exemption forms; and eligibility monitoring. Identified system challenges included:

- Australian Government and state/territory interactions in the case of delays in states/territories uploading immunisation data to the ACIR
- vaccine availability.

Identified data challenges included concerns about the quality of the data in the ACIR, delays in uploading data, and the ability to monitor vaccination objection. An additional system challenge was the increased workload for state/territory services, including local councils, public health units and vaccination providers, who reported that they were overwhelmed by the increased workload associated with the commencement of the Measure.

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Governance

The governance structure established for the Measure included a high level (Senior Executive) Interdepartmental Committee (IDC) and an Executive Level Working Group that both met regularly to handle practical implementation issues. These were in addition to the 'business as usual' governance arrangements in each agency. There was also a separate Communications sub-committee, as well as some department-specific steering committees. These governance structures were effective in identifying, and strategising to mitigate issues and risks.

Service delivery

The stakeholder consultation provided some insight into whether recipients had positive or negative encounters with service provision. Australian Government and external stakeholders held divergent views about this. Most government stakeholders felt that recipients had a positive experience with the new requirements, which they attributed to the public's acceptance of the overall aims of the Measure. Government stakeholders nominated two areas in which recipients' experiences were negative. These centred on confusion for recipients around the process of updating their children's vaccination details (and delays in having ACIR records updated), and vaccination objectors' opposition to the Measure. The external stakeholders characterised recipients' experiences with implementation of the Measure more negatively. They felt that recipients' experiences were dependent on their child's vaccination status, highlighting the difficulties faced by many parents whose children were immunised overseas in fulfilling their obligations, as well as the perceived inadequate communication around the Measure from government. External stakeholders felt that a lack of knowledge and confusion around the impact of the Measure caused anxiety for many parents.

Communications

The Measure's communication activities were the joint responsibility of DSS, Health, DHS, and DET, with the DSS' strategy outlining the agreed overarching communication approach. Complementary communication strategies were developed by DHS and Health.

Communication activities were undertaken by DSS to inform parents, service providers and other stakeholders of the changes. Health developed a communication plan for vaccination providers, including general practitioners. DHS also developed a communication implementation plan and undertook a range of communication activities including: general information letters for recipients, letters for CCB recipients, letters for FTB recipients, and additional letters for parents whose child/ren's immunisation status was either not up to date, unknown (because child was not linked) or was mismatched with information on file. DET was responsible for communicating with child care services via the Child Care Management System (CCMS) Helpdesk.

Most government stakeholders agreed that the Measure's communications strategy, including letters to recipients and health providers, as well as general media, was effective in supporting implementation. Nevertheless, many were aware of issues that hampered

communications, including: the tight timeframe for implementation resulting in delays in getting information to recipients and health professionals, the complexity of the message and confusion due to different requirements for different payments. Positive outcomes of the communications strategy included consistency in delivering the same message across departments and utilising as many channels as possible to communicate the changes resulting in high levels of awareness. External stakeholders were generally less positive about communications surrounding the Measure. Most reported that they had not received adequate information about the Measure, or that there were gaps in the information provided which hindered their ability to explain the changes to recipients.

Management information

The document review highlighted concerns about the completeness of the data in the ACIR, the capacity to monitor vaccination objectors in the future, concerns about data linkages and the management information that was produced to monitor implementation and impact.

Stakeholders noted that implementing the Measure necessitated a significant amount of additional information being entered into the ACIR, as children aged 10 up to 20 years now needed full vaccination histories recorded. Linkages between the Centrelink payment database and the ACIR also needed to be updated. Several government and external stakeholders commented that the ACIR had improved, but that some short-term issues were experienced, including delays uploading data, data cleansing and parental angst. Other government stakeholders referred to the additional work to establish linkages between DHS and the ACIR. It was acknowledged that the process was not without its challenges but that linkages were ultimately successfully established.

Regular reports from Centrelink (DHS) data were provided to DSS, DET and Health to determine whether the Measure had resulted in any changes to the number of families receiving payments. Minutes from meetings of the IDC and the Working Group provide some information about the impact of the Measure on child care payments and on FTB Part A supplement payments.

The impact evaluation should examine the quality of the data on immunisation rates in the ACIR. While the ACIR contains historical information on registered vaccine objections, the capacity to monitor ongoing levels of vaccine objection in the community has reduced. Options to continue to monitor vaccination objection, as part of a broader inquiry into community understanding and confidence in vaccines, should be examined as suggested by submissions to the Senate Inquiry.

PIR summary conclusions

Overall, the implementation of the Measure went relatively smoothly from a policy perspective. Governance arrangements, risk mitigation strategies and communication strategies were put into place, and the Measure was implemented in a flexible manner that allowed for challenges to be addressed as they arose. Government departments worked well together and the communication between departments was effective in addressing

overlaps and gaps. There were additional benefits to the implementation of the Measure, in particular improvements in the completeness of data in the ACIR.

Despite the effective implementation by the Australian Government there were considerable difficulties for state and territory officials as well as vaccination providers. Some of these difficulties resulted from the parameters of the Measure itself. These included:

- the short timeframes for implementation
- the perceived lack of additional resources provided for states and vaccine providers, other than the \$6 incentive for catching-up overdue children
- the incompleteness of the AIR and backlogs in getting data uploaded onto the register.

Other challenges may have been better addressed in the implementation, in particular, that only three states sought additional support for implementing the Measure via primary health networks, and the perceived inadequacies in support available for state and territory vaccine providers, despite regular meetings with the Australian Government departments during implementation.

Overall, the majority of the challenges can be accounted for as ‘teething problems’, which are to some extent inevitable in the implementation of any complex measure, particularly when it is required in a short time frame. It is anticipated that most of these challenges will be resolved and will not affect implementation in the long-term. Perhaps the only long-term unintended consequence of the Measure has been the loss of ability to track vaccine objectors and henceforth the Government will need to rely on proxy measures to assess the extent of vaccination objection in the community.

Although the early implementation has been mostly successfully accomplished, it is not yet possible to assess whether the Measure itself has been successful. There are early indications that vaccination rates have improved, but it is not possible at this stage to attribute changes to the Measure or any particular component of it. An impact evaluation would need to be undertaken to assess the degree to which the Measure has not only improved administrative processes, but has led to actual changes in population behaviour, and whether these have been sustained over time.

The most contentious aspect of the Measure concerns the underlying theory of change, the long-term effectiveness of a sanctions-based approach as opposed to an incentive-based approach to public health, and the unintended consequences for children who are not up to date with vaccinations because of issues other than vaccination objection. These questions will be tested in any impact evaluation.

Impact Evaluation

Drawing on insights gained through the PIR, options and strategies for conducting the impact evaluation of the Measure were also developed.

Two key challenges for any impact evaluation relate to isolating the impact of the Measure on immunisation rates and trying to establish a baseline measure for determining impact. As noted in the theory of change model, a range of additional contextual factors may have had an impact on the immunisation rates. These include state-based policies, complementary measures introduced by Health and media coverage of vaccination. As such, isolating the impact of the Measure on immunisation rates will be a challenge. It may be possible to examine the impact of outside factors through qualitative research, which should complement the administrative data analysis.

The key questions to be addressed in any impact evaluation would be:

- Did the Measure achieve its intended goal of increasing immunisation rates and achieving herd immunity in the Australian population?
- To what extent can changes in immunisation rates be attributed to the Measure?
- Were there any unintended impacts (positive or negative) of the Measure?
- Is the Measure cost-effective? (cost benefit analysis)
- Have there been any ongoing implementation challenges following the post-implementation phase?

We recommend that any impact evaluation adopt a 'before and after' mixed method design, as it will not be possible to utilise a counterfactual or comparison group to assess impact.

The economic evaluation could draw upon the findings of any impact evaluation and will model the economic costs and benefits of vaccinating additional children after the onset of the Measure. Where possible, this analysis will include a geographical breakdown, as the benefits of vaccinating a child living in an area with low vaccination rates will be greater than a child living in an area with already high rates of vaccination. Similarly, if possible, the modelling will include vulnerable groups such as Aboriginal and Torres Strait Islander and CALD children who are at higher risk of vaccine-preventable disease. A broad estimate of the costs of the evaluation would be around \$400,000.

1 Introduction

The Australian Government Department of Social Services commissioned the Social Policy Research Centre (SPRC) at UNSW Sydney to undertake a Post Implementation Review (PIR) of the No Jab, No Pay 2015 Budget measure. The intended outcomes of this review were:

- to determine whether the Measure was implemented effectively by measuring successes and challenges that have been encountered in the first 6–12 months of the Measure's implementation
- to provide a framework for the subsequent impact evaluation.

The report is divided into two main parts: the first presents the findings of the PIR, and the second outlines a framework for an impact evaluation of the No Jab, No Pay 2015 Budget measure.

The findings of the PIR are further subdivided. We begin by presenting a select review of the literature on the impact of similar measures. In the following section, we present the methodology for the PIR, the research questions guiding the PIR and present the findings from the document review, the stakeholder consultation and data scoping exercise.

In part two, we present an impact evaluation framework.

2 Literature review

This section presents a select review of the literature with a view to providing some background to immunisation rates in Australia, interventions designed to increase immunisation rates and the introduction of the Measure. The review is by no means exhaustive; rather it aims to provide some context for the PIR.

Immunisation is considered to be a highly effective and cost-effective health intervention and increasing immunisation rates is a key public health goal at both the national and global level (Australian Government, 2014; World Health Organization, 2013). Routine immunisations for infants began in Australia in the 1950s when immunisation was the responsibility of individual states and territories. Over time, however, disparities in immunisation rates between states and territories became evident, with differences attributed to differential funding of, and access to, vaccines. A national survey in the 1980s indicated that only 53 per cent of children were adequately immunised. Concern about low rates of immunisation led to the development of the first National Immunisation Strategy in 1993 and the establishment of the Australian Childhood Immunisation Register (ACIR) in 1996 (Australian Government, 2014).

In 1997, the *Immunise Australia: Seven Point Plan* was launched to increase childhood immunisation rates. The aim of this program was to increase vaccination rates among the general population. Strategies to increase immunisation rates introduced under the *Seven Point Plan* included financial incentives for parents and general practitioners, improved methods for monitoring vaccination coverage, education, research and school entry requirements (Australian Government, 2014; Pearce, Marshall, Bedford, & Lynch, 2015; Ward, Hull, & Leask, 2013).

Under the *Immunise Australia: Seven Point Plan*, immunisation status was linked to the Maternity Immunisation Allowance (MIA) and child care payments ('Child Care Assistance Rebate and/or the Child Care Cash Rebate'). Depending on factors such as income, size of family and type of child care, rebates ranged from \$20–\$122 for every child per week. The MIA was a one off payment of \$200 for every child that was fully immunised at 19 months of age (Ward et al., 2013). In order to remain eligible for these payments, parents were required to provide evidence that their child was fully immunised according to the immunisation schedule included in the National Immunisation Program (NIP). Parents who disagreed with vaccination or had philosophical reasons for not having their children vaccinated could register as 'conscientious objectors' in order to continue receiving these payments (Lawrence, MacIntyre, Hull, & McIntyre 2004).

The MIA was modified in 2009 and ceased in 2012, and immunisation status was linked to the existing means-tested Family Tax Benefit (FTB) Part A supplement at ages 1, 2 and 5 years. Parents were exempt from the immunisation requirements if they registered their 'conscientious objection'¹ with DHS (Ward et al., 2013). Ward, Chow, King, and Leask

¹ Based on the data available on the ACIR website, it appears that the recording of conscientious objection data commenced in 1999.

(2012) argue that '[l]egislated parental incentives for childhood immunisation have been broadly accepted among Australian parents and have had a positive impact on uptake and timeliness'.

Data on children's immunisation status was held in the Australian Childhood Immunisation Register (ACIR) (now the Australian Immunisation Register (AIR)). The ACIR was established in 1996 and included the immunisation data for children registered with Medicare—roughly 99 per cent of children in Australia (Hull et al., 2013, p. 149). The register relied on general practitioners and other vaccination providers reporting vaccination information to the ACIR after administering vaccines. Children vaccinated overseas were required to provide proof of vaccinations to Australian vaccination providers, who entered the information in the ACIR. Proof of vaccination was required for data to be submitted to ACIR (Gibbs, Hoskins, & Effler, 2015).

Under the *Seven Point Plan*, a General Practice Immunisation Incentive scheme (GPPI) was introduced. The aim of the scheme was to encourage general practitioners to notify the ACIR of changes of immunisation status of children under 7 who came to their practice. Under the scheme, general practitioners received a \$6 payment for each notification that a child has been fully immunised according to the schedule (Ward et al., 2013). GPPI also paid performance funding to general practitioners able to demonstrate immunisation coverage above 90 per cent for their practice. With respect to child care attendance, children for whom conscientious objection to vaccination had been registered could still attend, but could be temporarily excluded in the case of an outbreak of a vaccine-preventable disease (Salmon et al., 2006).

The implementation of the *Seven Point Plan* led to dramatic increases in vaccination rates among children. Between 1996 and 2000, vaccination coverage among children aged 12 months increased rapidly to over 90 per cent of infants aged 12–15 months. However, uptake has since remained relatively stable at around 91 to 92 per cent (Hull et al., 2013, p. 164), which is below the OECD average and falls below the levels required for herd immunity for some diseases (Harvey, Reissland, & Mason, 2015; Pearce et al., 2015). The Australian Government Chief Medical Officer and the state Chief Health Officer agreed to an aspirational target of 95 per cent immunisation coverage rates, consistent with the World Health Organization's Western Pacific Region target. This is the level required to achieve 'herd immunity' (Department of Health, 2016). Herd immunity refers to the required percentage of the population that needs to be vaccinated to prevent the outbreak of vaccine-preventable diseases (Danchin & Nolan, 2014). Although the proportion differs for different diseases, the WHO Western Pacific Region's standard, based on measles, is 95 per cent of the population (Wigham et al., 2014, p. 1118). The figure is a whole of population target, but ideally 95 per cent of the population should be immunised in every geographic community.

2.1 Immunisation rates

The National Immunisation Program Schedule provides a list of vaccinations that all Australian children are expected to receive and the age at which they are expected to be administered (Australian Government, 2016c). It also identifies the vaccinations to be

provided through school vaccination programs, additional vaccinations that Aboriginal and Torres Strait Islander children should receive and additional vaccinations for other 'at-risk' groups.

Coverage data for children aged 24 months in 2014 from the ACIR indicate that 91.23 per cent were up to date with their immunisations. Of the remaining children, 7 per cent were not up to date with their immunisations and did not have a recorded conscientious objection, and just 1.77 per cent had a recorded conscientious objection (Australian Government, 2016a). These figures suggest that most children's incomplete vaccination status are likely to be attributable to causes other than vaccine refusal (Beard, Hull, Leask, Dey, & McIntyre, 2016). The picture is complicated by a number of factors, including that some parents who registered as conscientious objectors nevertheless went on to vaccinate their children, and also that some children were not registered on the ACIR at all. Thus the exact proportion of conscientious objectors is difficult to determine. Nevertheless, it is a very small proportion of the total population.

2.2 Factors contributing to incomplete childhood immunisation

With immunisation rates below the national aspirational immunisation coverage target, researchers have sought to explore the characteristics of partially and non-immunised children. The literature identifies two key groups of parents whose children are not immunised at all or are incompletely immunised. The first group consists of parents who face barriers to accessing immunisations 'which may relate to social disadvantage and logistical barriers' (Beard et al., 2016; Leask et al., 2012; Pearce et al., 2015). The second group consists of parents who hold concerns about the safety of vaccines: so-called 'vaccine hesitators' (Leask et al., 2012).

2.2.1 Socio-economic disadvantage and logistical barriers

In their analysis of data from the Longitudinal Study of Australian Children (LSAC), Pearce et al. (2015) found that the majority of incompletely immunised infants (in 2004) did not have a mother who disagreed with immunisation. Barriers to complete immunisation identified in the study were: having a larger family (three or more children), moving house since the birth of the child, less than weekly contact with friends and family, and the use of formal group childcare. The parents of children who were incompletely immunised had lower education and income levels. Ward et al. (2012) also note that certain groups, including Aboriginal and Torres Strait Islander people and those living in socio-economic disadvantage, were more likely to be incompletely immunised.

Beard et al. (2016) found that partially vaccinated children without a registered conscientious objection were more likely to be living in areas in the lowest decile of socio-economic status, 'suggesting delayed vaccination caused by problems related to disadvantage, logistic difficulties, access to health services, and missed opportunities in primary, secondary and tertiary health care' (p. 275). They also found that children born overseas were significantly more likely to have neither vaccinations nor an objection recorded, but acknowledged that they may very well be vaccinated.

Gibbs et al. (2015) found that the most commonly reported reason why a significant minority of children in Western Australia had no vaccination history recorded in the ACIR was because their families had moved from overseas and their vaccination history had not been recorded in the ACIR. The second most common reason was that the parents were unregistered conscientious objectors.

2.2.2 Vaccine hesitancy

Forbes et al. (2015) define vaccine hesitancy as having varying degrees of concerns about immunisation. They estimate that between 30 and 70 per cent of parents in developed countries could be categorised as vaccine-hesitant. Reasons for vaccine hesitancy include religious obligations, safety concerns for children, distrust of government services and health systems, misinformation or lack of knowledge, and the perceived threat of autism following vaccinations (Danchin & Nolan, 2014; Dubé et al., 2016). Despite the empirical literature reinforcing the benefits and safety of vaccinations, vaccine hesitancy continues to rise (Dubé et al., 2016).

Vaccine hesitancy can lead some parents to delay vaccination, to select only the vaccines they consider safe or to outright refuse to vaccinate. Prior to 1 January 2016, parents who refused to vaccinate their child could continue to access child care payments if they registered a 'conscientious objection' with DHS (via a recognised immunisation provider). Parents who chose not to vaccinate and who were ineligible for payments could register an objection if they wished.

In their analysis of trends and patterns in vaccine objection between 2002 and 2013 as recorded in the ACIR, Beard et al. (2016) found that the proportion of children with a registered objection increased from 1.1 per cent to 2.0 per cent. They found that children with a registered objection were clustered in regional areas, which they note can pose a risk of local disease outbreak. They also found that children with a registered objection were more likely to be living in areas in the highest socio-economic decile than in the lowest. This implies that financial sanctions, such as the withdrawal of FTB Part A supplement, are less likely to impact on those with a registered objection than on vaccine hesitators and those whose children have not been fully vaccinated because of logistical barriers. However, Child Care Rebate is not subject to a means test, and as such is likely to have an impact across all socio-economic deciles.

2.3 Increasing immunisation uptake

Improving vaccination uptake is a key policy goal both nationally and globally, with a range of different approaches adopted with this goal in mind. Measures include: financial incentives, financial penalties, reminder systems, and effective communication/education strategies. Often a combination of different approaches is adopted. Much Australian and international research has sought to evaluate the impact of these approaches on increasing immunisation rates, with many considering the cost-effectiveness of the approaches. Prior to considering some of this research, it is important to note that many authors acknowledge the poor evidence-base for determining the most effective strategies/interventions for increasing vaccine uptake, and the need for the rigorous evaluation of any intervention and its impact on vaccine hesitancy/refusal (Dube, Gagnon,

MacDonald, & The SAGE Working group on Vaccine Hesitancy, 2015; Leask, Willaby, & Kaufman, 2014; Williams, 2014).

2.3.1 Financial incentives

Since the *Seven Point Plan*, policy makers in Australia have used financial incentives to increase vaccination rates (Lawrence et al., 2004; Ward et al., 2013). Although vaccination rates increased significantly following the introduction of the Plan (Hull et al., 2013), other reforms, including educational campaigns, financial incentives for general practitioners and school/childcare entry requirements, were introduced at the same time. This makes it difficult to separate the impact of financial incentives on the increase (Ward et al., 2013). Nevertheless, Ward et al. (2013) argue that they 'are likely to have made a significant contribution to increasing childhood immunisation coverage to over 90%' (2013: 592). However, overall, there is limited empirical evidence documenting the effectiveness of financial incentives on vaccination behaviour (Lawrence et al., 2004; Mantzari, Vogt, Marteau, & Kazak, 2015).

A perceived risk of incentivising parents to immunise their children by offering a financial reward is that they may feel more compelled to vaccinate for the financial rather than health benefits. For this reason, financial rewards are often combined with educational programs and other interventions aimed at increasing vaccination uptake (Mantzari et al., 2015).

2.3.2 Financial penalties

Several studies have examined the effectiveness of financial sanctions on immunisation rates. In many cases, however, financial sanctions are introduced alongside other changes, making it difficult to isolate their effectiveness alone.

An Australian study by Lawrence et al. (2004) sought to determine if the risk of financial sanction influenced parents' decision to vaccinate. Overall the study found an association between knowledge of welfare payments and age-appropriate vaccinations. However, it also highlighted that encouragement from health care professionals was important in the decision-making process. Among parents whose children were fully immunised, only 4.4 per cent reported that the MIA was the most important influence on their decision to vaccinate, while for 0.7 per cent of parents, it was the Child Care Benefit (CCB) (Lawrence et al., 2004). Roughly two thirds of the parents in the study who received the MIA indicated that they were vaccine-hesitant. This may indicate that linking welfare payments with vaccinations may be influential in increasing vaccination uptake amongst this group.

Given the increase in the number of school-age children receiving vaccine exemptions for non-medical reasons in the United States, Constable, Blank, and Caplan (2014) argue that measures that impose a financial cost on vaccine objection ought to be considered alongside more effective vaccination education in order to increase vaccination rates. They acknowledge that imposing a financial penalty (e.g. financial incentives in the form of taxation, health insurance costs, and or private school funding) 'falls somewhere on the spectrum between persuasion and coercion' but argue that the public health benefits outweigh this imposition on autonomous decision-making.

The use of financial sanctions to encourage vaccination uptake has raised ethical concerns internationally (Adams et al., 2016). Concerns relate to the perceived removal of civil liberties, penalising children for their parents' decisions, and increasing families' financial hardship. While financial sanctions can lead to increases in vaccination uptake, they may also disengage vaccine hesitant parents and health professionals from the educational process. On the other hand, it could be argued that the public health benefits of vaccinations may outweigh individuals' right to decide whether or not they vaccinate (Adams et al., 2016). The challenge is to find the right balance between the right to autonomy and the right for safety from vaccine-preventable diseases.

2.3.3 Reminder systems and follow-up

Harvey et al.'s (2015) systematic review and meta-analysis found that receiving both postal and telephone reminders was the most effective reminder-based intervention for increasing vaccination uptake, and that educational interventions were more effective in low- and middle-income countries. In their systematic review, Jacob et al. (2016) found that reminder systems, for clients or immunisation providers, were among the lowest cost strategies to implement and the most cost-effective in terms increasing immunisation rates. They found that strategies involving home visits and combination strategies in community settings were expensive and less cost-effective.

Ward et al.'s (2012) systematic review identified a number of strategies to improve vaccination uptake that were relevant to the Australian context. Of the strategies reviewed, catch-up plans showed the greatest impact on immunisation uptake but recall/reminders for patients and vaccination providers were the most commonly evaluated strategies and had the strongest evidence.

In the Australian context, Pearce et al. (2015) argue that greater effort should focussed on overcoming barriers to immunisation through sending reminders and rescheduling cancelled appointments or interventions that offer immunisation in alternative settings for those families that face challenges accessing services.

Given that a high proportion of incompletely immunised children in their analysis had moved from overseas, Beard et al. (2016) recommend that primary care clinicians should focus on both partially vaccinated children and overseas born children. For the latter their overseas vaccination history should be accurately confirmed by a vaccination provider and recorded in the ACIR. This is echoed by Gibbs et al. (2015) who recommend a number of strategies for addressing the immunisation status and records of families moving from overseas.

2.3.4 Effective clinician communication

Researchers have emphasised the importance of effective clinician communication for increasing vaccination uptake. Forbes, McMinn, Crawford, Leask, and Danchin (2015) differentiate between five groups of parents based on their stance towards immunisation. These are: unquestioning acceptors, cautious acceptors, hesitant vaccinators, late or selective vaccinators and refusers. Elsewhere, Leask et al. (2012) develop a framework to assist clinicians in communicating effectively with these different groups of parents to

enable them to make informed decisions about vaccination. In emphasising the centrality of effective clinician-parent dialogue, regardless of the parent's stance towards immunisation, Leask et al. advocate for 'an approach to communication that encourages questions and employs a guiding rather than directing style'.

In advocating for the need for 'new approaches to vaccine consultation', Leask and Kinnersley (2016) argue that physicians need to have the opportunity to engage with vaccine-hesitant parents in order to address any concerns they might have. They acknowledge that physicians are generally unable to devote adequate time to undertake training in communication interventions, and suggest that decision aids that 'are designed to help people understand their options and potential outcomes, to consider the possible benefits and harms of their choices, and to increase consumer participation in decision-making' might prove useful in the context of vaccine hesitancy. They argue that it is critical that funding is directed towards developing 'conceptually clear, evidence informed, and practically implementable approaches to parental vaccine hesitancy'.

Elsewhere, Leask (2015) argues against an adversarial approach to increasing vaccination rates, because it draws attention to vaccination objectors and their arguments and has the potential to alienate vaccine-hesitant parents. Instead, she argues that advocacy and policies should address the factors that influence the low uptake of vaccines.

Leask et al (2014)'s article on vaccine hesitancy outlines a number of strategies that are required in order to address vaccine hesitancy. These include: the identification and testing by governments and research agencies of interventions designed to increase uptake of vaccines among vaccine-hesitant parents; monitoring vaccine acceptance; community-level responses to engage communities in dialogue (as vaccination rejection or hesitancy is often a community-based phenomenon); provider-level solutions as interaction between parents and providers can influence uptake, however the evidence-base is limited; and provider education – vaccination providers ought to have a good understanding of vaccines and vaccine hesitancy. Addressing vaccine hesitancy requires 'political will, professional commitment, and research investment in order to develop and evaluate new and innovative solutions' (p. 2601).

The extant evidence suggests that the most effective interventions for increasing vaccination rates involve multi-component strategies which generally include educational programmes and interventions which aim to address logistical barriers to immunisation (Dube et al., 2015; Jarret, Wilson, O'Leary, Eckersberger, & Larson, 2015; Pearce et al., 2015). Because most interventions include several components, it is often difficult to determine which component or combination of components leads to an increased vaccination uptake. As there are multiple population groups who do not fully vaccinate their children, with different drivers for each group, it is likely that no single measure – or type of measure – will address the needs of all these groups, and that multi-component strategies will need to specifically target conscientious objectors, vaccine hesitators and those who face logistical barriers to having their children vaccinated.

2.4 The No Jab No Pay budget measure

On 12 April 2015, the Measure was announced by the Hon Scott Morrison MP, the then Minister for Social Services and the then Prime Minister the Hon Tony Abbott MP. The Measure was a pre-budget Government announcement and was included in the 2015–16 Australian Government Budget. From 1 January 2016, the Measure was implemented by the Australian Government. There is as yet no available research evidence about the impact of the Measure on immunisation rates; however, some commentary on the Measure appeared shortly after its announcement in 2015.

In an opinion piece in the Australian Medical Association's (AMA) publication *Australian Medicine*, Macartney (2015) of the National Centre for Immunisation Research & Surveillance argues that there are better ways to improve vaccination rates than imposing financial penalties on parents. She asserted that the Measure is 'unnecessarily punitive and could have negative repercussions' and that there are alternative means of increasing the immunisation rate. These include: reminding and supporting parents to immunise; improving access, awareness and the affordability of vaccination; enabling vaccine-hesitant parents to engage with qualified health professionals; and grassroots campaigning for immunisation that promotes immunisation as part of a healthy lifestyle.

In the *Australian Medicine* Budget edition (14 May 2015), Rollins (2015) highlighted the AMA's concern about the projected savings to government of over \$500 million by 2018–19 from the Measure, because families will be ineligible for child care payments and family tax benefits. Rollins quotes the President of the AMA as stating that the aim should be to invest the money saved on increasing vaccination rates.

While some external stakeholders focussed on the perceived savings, the Government made it clear that the purpose of the Measure was to improve immunisation rates, not budgetary savings (Abbott, 2015). These concerns, and the lack of empirical evidence in Australia and internationally about the effectiveness of different strategies to increase vaccination rates, make it imperative that the Measure should be comprehensively and independently evaluated to examine its impact on different population groups in the short, medium and longer term.

3 Methodology

The No Jab, No Pay Post Implementation Review was guided by several key questions listed below. As shown in Table 1 the methodology drew upon different methods of data collection to address each question.

Table 1 Research areas, questions and data sources

Research questions	Data sources
Policy design	
1. Has implementation been consistent with the Measure's policy design?	Document review
2. If there have been any deviations from the original design, have these been positive or negative in nature?	Stakeholder consultations
	Data scoping
Issues and risks	
1. What successes and challenges (including design, system, data, communications, and uptake of immunisation by the target populations) were encountered in implementing the Measure?	Stakeholder consultations
	Document review
Governance	
1. Did governance and decision-making mechanisms help or hinder the successful implementation of the Measure?	Stakeholder consultations
	Document review
Service delivery	
1. Has the service delivery model resulted in impacted recipients having positive or negative encounters?	Stakeholder consultations
Communications	
1. Did the communication strategy and Departmental communication plans successfully support the implementation of the Measure?	Stakeholder consultations
2. Did the Communication Working Group effectively manage communication issues as they arose?	Document review
Management information	
1. How has the policy and system design impacted upon the data available to date regarding rates of immunisation and eligibility for both family assistance (Family Tax Benefit Part A supplement) and child care payments?	Data scoping
	Stakeholder consultation

3.1 Document review

The document review involved a review of publicly available and internal government documents. The Department of Social Services (DSS) provided the research team with documents and web links under the following headings:

- Senate Community Affairs Legislation Committee Inquiry
- Reports and Project Plans
- Fact sheets and schedules
- Policy resources
- Legislation
- Data sets
- Communications
- Letters to recipients
- No Jab, No Pay Interdepartmental Committee and Working Group papers.

These documents were imported into the qualitative software NVivo where they were coded and reviewed.

3.2 Data scoping

The review of the datasets involved a data scoping exercise that provided the research team with an understanding of the quality of data available and the degree to which it may be useful for inclusion in the subsequent impact evaluation. The review did not involve any analysis of the available data. The data scoping encompassed a review of four data sources, as advised by the DSS: the ACIR/AIR, Child Care Management system, Day One implementation reports and data from the Enterprise Data warehouse in DHS. Discussions about the data items, data quality, data linkage processes and departmental processes for data access for external researchers were conducted with key contacts from DSS, DHS, DET and ACIR/AIR. Data dictionaries were requested in all cases and provided by DHS.

3.3 Qualitative stakeholder consultation

A component of the PIR involved consultation with key staff in the four government departments (DSS, Health, DHS, DET) involved in the implementation of the Measure and with stakeholders from organisations external to the Australian Government. Fifteen staff members from the four government departments and eight external stakeholders were invited to participate in semi-structured interviews. Ethics approval for the PIR was given by the UNSW Australia Human Research Ethics Committee (HREC No. HC16563) and participation in the research was voluntary.

Nine government stakeholders were interviewed from DSS, Health, DHS, DET. These stakeholders were from a range of areas within these departments, including payment policy and operations, immunisation policy and programs, database management, and communications. In addition, nearly all of these stakeholders were involved with both the Working Group and the Interdepartmental Committee. Most had also been involved in the design and development of the policy prior to its implementation.

In addition to the government stakeholder cohort, eight external stakeholders were interviewed. These external stakeholders were from organisations external to the Australian Government, with four representing state-based health service providers, two representing a not-for-profit early learning provider, one representing a peak body, and one academic. As such, their perspectives differed from those of the government stakeholders as they had less of an 'internal' view of the implementation and more of an 'on the ground' view, allowing them to comment on the effects of the Measure on immunisation providers and recipients. The interviews were conducted over the phone and recorded with participants' consent.

It is important to emphasise that the views gathered through the stakeholder consultation are not necessarily representative of all individuals involved in the implementation of the Measure. Rather, qualitative studies typically select information-rich cases for in-depth study 'from which one can learn a great deal about issues of central importance to the purpose of the research' (Patton, 1990, p. 169) without making claims to be representative of a larger population. For the purpose of the PIR, the aim of the stakeholder consultation was to canvass a range of views and perspectives on the successes and challenges of implementing the Measure. A further aim of the consultations was to identify any issues that stakeholders felt should be considered for any impact evaluation of the Measure.

3.4 No Jab, No Pay workshop

The research team facilitated a workshop with 16 stakeholders in DSS National Office in November 2016. Workshop attendees included a range of participants from the four departments responsible for policy implementation, including individuals with knowledge of the relevant databases. The workshop provided the opportunity to present the findings of the PIR, including the program logic and theory of change, and the preliminary impact evaluation framework. Workshop attendees were invited to provide feedback on the material presented, and the research team followed up with a number of staff following the workshop to clarify issues and source additional documentation.

3.5 Analysis and synthesis of findings

The analysis involved triangulation of data, including the review of policy documentation, and insights from the data scoping exercise and from the qualitative data collected.

4 Findings

This section presents the findings of the PIR as they relate to the key research questions.

4.1 Policy Design

The PIR was guided by two key questions with respect to policy design:

- Has implementation been consistent with the Measure's policy design?
- If there have been any deviations from the original design, have these been positive or negative in nature?

To address these questions, we first review the policy design.

Australian Government child care payments (currently called Child Care Benefit (CCB) and Child Care Rebate (CCR)) have been linked to immunisation status since 1998. Since 2012, payment of Family Tax Benefit (FTB) Part A supplement was also linked to immunisation status at certain ages. Although these payments were linked to immunisation status, parents could access CCB, CCR & FTB Part A supplement if they registered a conscientious objection (CO) to having their child immunised.

On 23 November 2015, the No Jab, No Pay 2015–16 Budget measure was passed in the *Social Services Legislation Amendment (No Jab, No Pay) Act 2015* (Parliament of Australia, 2015).

The goals of the Measure were to:

- 'reinforce the importance of immunisation and protecting public health by strengthening immunisation requirements for children' (Department of Social Services, 2016, p. 1)
- 'amend the immunisation requirements that apply to Australian Government child care payments and the FTB Part A supplement'. (Department of Social Services, 2016, p. 1).

While the Measure was expected to save over \$500 million over three years, these savings were not the intended goal of the Measure.

Implementation of the Measure required activation of three separate mechanisms in addition to other related measures/legislation. The three mechanisms outlined in the legislation were: a modification of existing exemption categories; extending eligibility monitoring; and changes to the existing grace period for children who were not up to date with immunisations. These legislative changes were put into effect through DHS systems. Associated measures and legislative changes (described further below) were:

- the expansion of the Australian Childhood Immunisation Register (ACIR);
- Vaccination Providers who administer and report catch-up vaccinations for children up to 7 years of age) who are more than two months overdue and who receive all

scheduled vaccines at that scheduled point (2, 4, 6, 12, 18 months and 4 years of age) can receive a catch-up notification payment; and

- free 'catch-up' vaccines for individuals aged 10 up to 20 years and who are in receipt of family payments.

In addition, legislation in New South Wales, Queensland and Victoria introduced 'No Jab No Play' requirements, restricting access to child care centres for children who are not immunised.

The Australian Government has also proposed phasing out of the FTB Part A end of year supplement, which would also impact on the No Jab, No Pay measure.

4.1.1 Exemption categories

Prior to the introduction of the Measure, parents could continue to access child care payments and FTB Part A supplement if their child was not up to date with their immunisations if the parent completed an *Immunisation exemption conscientious objection form* with a recognised immunisation provider and registered their objection with ACIR/AIR. Exemptions had also been granted on religious grounds to children of members of the Church of Christ, Scientist. With the introduction of the Measure, these two exemption categories were removed. As a result, from 1 January 2016, parents who registered as conscientious objectors or as members of the Church of Christ, Scientist were no longer eligible for child care payments and FTB Part A supplement if their child was not up to date with their immunisations or on a catch-up schedule. Exemptions still remain for children with a medical contraindication, with natural immunity or who are participating in a vaccine study (Senate Community Affairs Legislation Committee, 2015, pp. 2-3).

The *Social Services Legislation Amendment (No Jab, No Pay) Act 2015* (Parliament of Australia, 2015) repealed Section 7 of the *A New Tax System (Family Assistance) Act 1999* (Parliament of Australia, 1999) which provided that the 'Minister may make determinations in relation to the immunisation requirements'. Instead a new section 6(6) was included that provides that a child meets the immunisation requirements if the Secretary determines that the child meets the requirements. The Act provides, in section 6(7) that the Secretary must comply with any decision-making principles set out in a legislative instrument made by the Minister, for the purposes of that subsection. Currently, the *Family Assistance (Meeting the Immunisation Requirements) Principles 2015* (Australian Government, 2015b) allow the Secretary to make such a determination in the following circumstances:

- if the child is under 15 years of age, a person with legal authority to make decisions about the medical treatment of the child has refused, or failed within a reasonable time to provide consent or, if the child is aged at least 15 years of age, the child has refused, or failed within a reasonable time, to provide consent to be immunised
- if there is a risk of family violence if action is taken to meet immunisation requirements

- if the parent becomes a permanent humanitarian visa holder within 6 months of the child's arrival to Australia
- if the child is vaccinated outside of Australia and certified by a medical practitioner in respect of the FTB Part A Supplement only
- if the child is at a heightened risk of serious abuse or neglect if the Secretary does not make a determination that the child meets the immunisation requirements in respect of child care payments only.

4.1.2 Eligibility monitoring

Previously eligibility was checked against immunisation requirements at ages 1, 2 and 5 for FTB Part A supplement and each year up to age 7 for child care payments. With the introduction of the Measure, eligibility for all payments will be checked against immunisation requirements each year until the child is aged 20 years (Senate Community Affairs Legislation Committee, 2015: 3).

4.1.3 Changes to the 63 day grace period

Previously, a 63-day grace period was available for children to commence a catch-up schedule if they did not meet the immunisation requirements when the individual first attempted to claim child care payments. During this initial grace period, parents could access child care payments. With the introduction of the Measure, this initial grace period has been removed for new claimants, and the immunisation requirements must be met in order for an initial CCB claim to be approved. Grace periods still apply if a child subsequently stops meeting the requirements, in which case parents are notified and advised to take steps to bring the child back up to date or risk having child care payments cancelled.

4.1.4 Other related measures/legislation

Implementation of the Measure also required the introduction of additional measures and legislative changes. These were: the expansion of the ACIR, 'catch-up' notification payments, and the provision of catch-up vaccines for individuals aged 10 to 20 years of age for eligible recipients.

Expansion of the Australian [Childhood] Immunisation Register

The expansion of the ACIR was the responsibility of Health. The ACIR, renamed the AIR from 30 September 2016, was expanded in order to record vaccination information for people up to 20 years of age in order to facilitate the extension of eligibility monitoring for payments (Department of Social Services, 2016, p. 2). The legislative changes were outlined in the *Australian Immunisation Register Act 2015* and *Australian Immunisation Register (Consequential and Transitional Provisions) Act 2015*.

The *Project Management Plan Extending Immunisation Requirements, Project Management Framework* developed by DHS Services (April 2015) refers to the extension of the ACIR to include the immunisation records for children up to 20 years. ICT system changes required were: 'Full end to end system solution to support implementation of the

policy change across the Centrelink master programme and Medicare master programme, as well as datalink between the ACIR and ISIS systems'. From an implementation perspective, recognised constraints included:

- the existing ICT systems had to be used to deliver the business solutions
- ICT capacity and ICT knowledge of ISIS/ACIR systems could affect the program.

Concerns were expressed about the completeness of ACIR records prior to the implementation of the Measure in submissions to the Senate Community Affairs Legislation Committee Inquiry into the *Social Services Legislation Amendment (No Jab, No Pay) Bill 2015*. In terms of the expansion of the register, there were a range of concerns and issues listed in the issues log relating to data quality, including the software used by some immunisation providers and cases of Immunisation History Backlog in some states and territories.

'Catch-up' immunisation arrangements

In preparation for the introduction of the Measure, arrangements were made to try to ensure that children who were incompletely immunised could commence a catch-up schedule and thereby meet/continue to meet eligibility for CCB, CCR and FTB Part A Supplement payments. The arrangements included:

- extending eligibility for free National Immunisation Programme (NIP) vaccines to all children under 10 years of age
- the funding of a new catch-up scheme for children aged 10 to 20 years and the provision of free vaccines to existing CCB, CCR and FTB Part A recipients (receiving payments on 31 December 2015). This catch-up scheme is available until 31 December 2017 (Department of Social Services, 2016, p. 2). A document outlining the processes involved in extending immunisation requirements to children over 10 years of age was developed by the DHS (Australian Government, 2015a).

An NIP information update for vaccination providers produced by Health reported that DHS would inform families if their child did not meet immunisation requirements for family assistance payments, and that families would be encouraged to speak to a vaccination provider about updating their records or commencing a catch-up schedule (see Section 4.6.3). The information update also indicated that Health would provide general practitioners and other immunisation providers with information about the catch-up immunisation schedule, how to check a child's immunisation history, how to order vaccines and how to update immunisation records in ACIR (Australian Government, no date). A factsheet for vaccination providers outlining the new immunisation requirements for family assistance payments was also developed by Health (Australian Government, 2015).

Incentive payment scheme for general practitioners and immunisation providers

Although not part of the Measure, a \$26 million measure titled *Improving Immunisation Coverage Rates* was announced in the 2015–16 Budget. This additional funding was used to fund an incentive payment scheme to encourage general practitioners and other

immunisation providers to identify and immunise children up to 7 years of age in their practice who were more than two months overdue for their vaccinations. The \$6 incentive payment was in addition to the existing \$6 that vaccination providers receive to deliver the vaccination. The funding was also used to 'improv[e] public vaccination records and reminder systems; greater public awareness of the benefits of vaccinations; and the Government's already announced "no jab, no play, no pay" policy' (The Hon Sussan Ley MP, 2015).

Phasing out of FTB Part A supplement

Legislation was introduced to the House of Representatives seeking to gradually phase out the FTB Part A supplement by 2018 (Senate Community Affairs Legislation Committee, 2015, p. 3). With the proposed cessation of this payment, it would only operate as a policy lever to increase vaccination rates in the short-term. This legislation has not yet passed, however, on 31 August 2016, the Government introduced an income limit for FTB Part A supplement. From the 2016–17 entitlement year the FTB Part A supplement will be limited to families with an adjusted taxable income of \$80 000 or less (Parliament of Australia, 2016). However, the Child Care Rebate is not subject to a means test, and as such is likely to have an impact across all families with children in child care, regardless of family income.

Related state legislation

Three of the states – New South Wales, Queensland and Victoria – enacted legislation relating to children's immunisation status and attendance at childcare and preschool, known as 'No Jab, No Play' policies (National Centre for Immunisation Research & Surveillance, 2016). These policies concerned immunisation status and children's access to childcare, and had no bearing on their ability to access family payments.

- New South Wales introduced immunisation requirements for enrolment in child care facilities from 1 January 2014. The legislation allows for conscientious objectors to still be enrolled, but unvaccinated children can be excluded in the event of an outbreak of a vaccine-preventable disease.
- Queensland introduced immunisation requirements, 'No Jab, No Play', from 1 January 2016 to allow the managers of child care services the option to refuse, cancel or place a condition on the enrolment or attendance of a child who is not vaccinated or up to date with the immunisation schedule. There are no exemptions for conscientious objectors.
- Victoria also introduced immunisation requirements, 'No Jab, No Play', from 1 January 2016, which requires children to be fully immunised in order to attend child care (long day care, occasional care and family day care) and kindergarten (preschool). There are no exemptions for conscientious objectors, only for those with medical reasons and for certain disadvantaged and vulnerable children (including: Aboriginal and Torres Strait Islander children; children who hold a health care card, whose parents hold a health care card, pensioner concession card, a Veteran's Affairs Gold or White card; refugees or asylum seekers; children known to child protection; children living in emergency or crisis accommodation, or of no fixed address due to family violence or homelessness; children evacuated due to

emergency such as flood; or children in emergency care) who are eligible for a grace period of 16 weeks to meet vaccination requirements (Victorian Government, 2016).

4.2 Implementation and Policy Design

The PIR set out to assess whether implementation of the Measure has been consistent with the Measure's policy design.

The document review highlighted how the Measure was designed to 'reinforce the importance of immunisation and protecting public health by strengthening immunisation requirements for children'. This was achieved by linking eligibility for child care and family payments with a child's immunisation status through three key mechanisms: removal of conscientious objection as a valid exemption category; monitoring eligibility for family payments for children up to 20 years of age; and removing the 63-day initial grace period for new recipients to get up to date with immunisations for child care payment new claims. The document review also confirms that implementation was consistent with the Measure's policy design. Activation of the three mechanisms was supported by the detailed implementation plans from DSS and DHS, with the latter outlining the expansion of the ACIR. Implementation was also supported by the complementary measures introduced by Health.

4.2.1 Policy Implementation

Through the stakeholder consultations, the government stakeholders felt that the implementation of the Measure had been broadly consistent with the policy's design. While the policy had undergone some changes since it was originally conceived, these were generally carried out before the Measure was launched. A number of challenges arose in the early implementation stages that required a system response, but these do not constitute deviations from the policy design.

Most of the external stakeholders felt that the policy's implementation had been consistent with the design of the Measure. However, some said that they had not been consulted on the design in the first place or were unaware of the original design:

I don't think there was any consideration of how it would affect other people, especially at state level. A heads up would've been nice. You like to think you're partners, so it's quite undermining. It could've fallen over if it wasn't for the good grace of states and territories and every immunisation provider.

One of the reasons is that there was no prior consultation – we could have told them about issues that would be a barrier or would not be appropriate.

I'm not objecting to the principles of the Measure but the way it has been implemented and foisted onto state government people has been outrageous. (ES)

Several external stakeholders also commented on the intent of the policy, viewing it primarily as a cost-saving measure:

This is the cynic in me – I think the policy was designed primarily as a money saving exercise rather than an immunisation coverage exercise. That was a nice side benefit but that wasn't the main goal.

So this was a cost saving initiative, targeted at conscientious objectors. (ES)

A key challenge identified by both government and external stakeholders in implementing the Measure concerned the eight-month timeframe between the policy announcement and its implementation. The tight timeframe was identified as being particularly challenging for the staff who had to implement the Measure without additional resourcing. Key implementation challenges included the associated changes to the ACIR, the uncertainty around when the legislation would pass and limited timeframes for engaging and communicating with stakeholders. Both government and external stakeholders commented that the timing of policy implementation, in January when many families were on holidays, also added to the implementation challenges.

The greatest issue was the short time frame to implement this. It was quite a big piece of work. Also we had very limited experienced staff who have the experience to deal with it. In my team in the project area we weren't given extra resources. It meant that one or two people had to do all the work, and work long hours. But it got done and on time. (GS).

There were issues with the legislation – it went to committee which delayed it a bit, so we were holding our breath waiting for that to be passed, then had to wait for the exemptions to come through, which came very late. (GS)

The timeframes got a bit too tight, which was very unhelpful. We have a network of over 600 services and we have to communicate the changes to them and it doesn't help if it's coming down to the wire. You're looking for traction quite quickly and it's a significant change for families. It wasn't a complex policy change, but the admin was complicated and took time. (ES)

The PIR also set out to assess whether there had been any deviations from the original design of the Measure and, if so, whether these deviations had been positive or negative in nature.

The general view from government stakeholders was that any deviations from the original design were relatively minor and were easily addressed. For example, two stakeholders mentioned that their perception was that the original design was narrower than what was subsequently developed, with a different range of ages being affected by the Measure, and the strict exclusion of non-medical exemptions having to be softened to deal with cases such as grandparent carers and family violence. Some stakeholders also commented that the deviations that did occur were either anticipated or relatively easily mitigated through subsequent actions:

I guess right at the costing time there were probably a couple of variations of the policy that were debated and considered, but once the policy was agreed to, it's been implemented pretty much as envisaged. (GS)

It was mostly just expanding on the existing legislation. It was already a fairly mature policy that was just being tweaked. (GS)

The document review highlighted two key deviations from the original policy design:

1. The extension of payments beyond the initial grace period for existing recipients

When the policy was implemented on 1 January 2016, existing recipients whose children were not up to date with their immunisations were advised that they had entered a 63-day grace period within which they could commence a catch-up schedule to complete immunisations and continue to access child care payments. The implementation of the policy prompted a significant increase in data being uploaded to the ACIR, resulting in backlogs and delays. There was concern that some recipients could be affected by the delays and lose their eligibility for child care payments (as FTB Part A is only determined at the end of the financial year). In response to the data processing delays, the Prime Minister agreed on 8 March 2016 to pay child care payment recipients past the grace period end date until 30 April 2016, until the processing delay issue had been resolved, and raise debts for recipients who were subsequently found to have not met immunisation requirements at 18 March 2016 (the end of the grace period). This issue was also identified through the stakeholder consultation:

Around March 2016 it became apparent that the states and territories were experiencing a high workload processing vaccinations in their own health networks, so there were some concerns expressed that some parents may have got their children vaccinated but the provider hadn't had a chance to lodge the notification, so there was a decision made to extend payments for childcare customers until the end of April to allow for those notifications to flow through. (GS)

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The stakeholder consultation identified further potential issues and process changes that could be considered, however these are still being finalised. These concerned relaxing the requirements that only general practitioners (rather than specialists) could approve medical exemptions, and that children with complex issues that may prevent them from being immunised (such as the potential for them to self-harm or harm others) may also be exempted. These could potentially be considered deviations from the original policy

design, but are effectively refinements, as the proposed changes would still be consistent with the key policy intentions.

4.2.2 Policy Comment

From a policy design perspective, several submissions to the Senate Community Affairs Legislation Committee proposed alternative approaches for increasing immunisation rates. These included:

- addressing structural and practical barriers to immunisation uptake by initiating home visiting programs (Public Health Association of Australia, 2015; The Royal Australasian College of Physicians, 2015)
- developing tools and communication materials to assist immunisation providers to have conversations with vaccine-hesitant parents (The Royal Australasian College of Physicians, 2015)²
- addressing gaps in immunisation provider knowledge through ‘increasing vaccination training in the medical curriculum’, for example (Leask & Wiley, 2015, p. 13)
- engaging Primary Health Networks to play a role in the community (Leask & Wiley, 2015, p. 13) to implement a program to reduce the incidence of vaccine refusal using a range of strategies
- implementing a national vaccine reminder system (The Royal Australasian College of Physicians, 2015).

It is possible that some of these additional approaches are being considered. For example, the Victorian Department of Health has developed the *VaxOnTime* app to remind parents about their children’s immunisations. However, none of the documents provided to the research team could shed light on the development of other complementary measures, nor was it within scope of this project.

4.2.3 Summary

From a policy implementation perspective, overall, most government stakeholders felt that the Measure was successfully implemented despite some implementation challenges:

There have been hiccups but by and large the process in place to manage the project and the implementation has been successful. (GS)

We implemented a measure under difficult conditions despite delays etc. So payments went out the door when they should to those who needed to be paid and people weren’t paid when they shouldn’t have been, so it was successful in that sense. (GS)

This is sort of what we do – we implement government measures. It’s been quite full on but not necessarily out of the ordinary and relatively positively received. We never expect applause but we hope we don’t get shouted down. (GS)

² In response, the Australian Government Department of Health funded and produced ‘fast fact sheets’ by a group of researchers called the SARAH Collaboration on topics including: ‘What is in vaccines?’ ‘How do vaccines affect immunity?’, ‘Why is the schedule the way it is?’, ‘How are vaccines shown to be safe?’.

At the same time, many government stakeholders acknowledged that external stakeholders may not feel as positive about implementation and may have had to do a lot of extra work without additional resources. This dissatisfaction with the Measure's implementation is evident in the external stakeholders' comments:

We call it 'No jab no pay, but lots of pain' ... This was the most poorly conceived and implemented initiative I've had anything to do with ... Quite a lot of people have been scarred by no jab no pay. (ES)

This is the most ill-considered policy that I've had to be associated with. It's been absolutely beyond belief. A dog's breakfast. (ES)

Implementation of the Measure was consistent with the Measure's policy design and was facilitated by the detailed implementation plans from DSS and DHS, and by the complementary measures introduced by Health. Two key implementation challenges concerned the need to:

- extend the payments beyond the initial grace period for existing recipients, to prevent parents from losing access to child care payments when their child's immunisations were up to date (due to delays in states/territories updating the ACIR)
- amend the continuous/rolling catch-up anomaly which could have enabled parents to delay vaccination indefinitely and continue to receive family payments.

If not promptly addressed these could have enabled parents to delay vaccination indefinitely and continue to receive family payments and could have resulted in some parents losing access to payments even when their child's immunisations were up to date. Awareness that the continuous/rolling catch-up scenario could be used to delay immunisation uptake resulted in efforts to amend the anomaly, which were taken as quickly as practicable. The data backlog had the potential to adversely affect child care payment recipients who had managed to get their immunisation records up to date. However, the extension of the payments beyond the initial 63-day grace period, in addition to efficiencies in processing the data, appears to have prevented any negative impacts. Despite these challenges, it appears that implementation did not deviate from the overall policy design, and in relation to the second point, the change was necessary in order to maintain the intention of the policy.

4.3 Dealing with issues and risks

With respect to issues and risks, the PIR explored the successes and challenges (including design, system, data, communications, and uptake of immunisation by the target populations) that were encountered in implementing the Measure. The DSS NJNP Project Plan provides the following definitions:

- 'An issue is an event or set of events that is currently impacting any component of the project'
- 'A risk is an uncertain event or set of events that, should it occur, will impact any component of the project' (DSS NJNP Project Plan 2015:24).

4.3.1 Management of issues and risks

A number of policies and procedures were put in place to identify issues and risks that could negatively affect implementation of the Measure. These included:

- an issues register and a risk log maintained by DSS
- an issues register maintained by DHS
- the working group and IDC, which were also key to identifying, discussing and strategising to mitigate issues and risks.

DSS risk register & risk log

DSS NJNP Project Plan outlines that the risk register was maintained by the DSS; risks were managed 'according to the Risk Management Framework of the Department', and were to be directed to the Project Sponsor if escalation was required (DSS NJNP Project Plan 2015:24). The initial SWOT analysis in the Risk Register identified the internal environment weakness as 'the management information to support the success of the Measure' and the external threats as follows: 'the ACIR records are not up to date, class action before the High Court, vaccine shortages and legislation does not get passed on time'. Treatments outlined for addressing risks included awareness of appropriate processes and issues as they arise, and a range of communications strategies with departments, stakeholders and recipients. The Risk Log categorised risks according to the criteria in Table 2 below.

Table 2 No Jab No Pay DSS risk log

Risk	Number and owner
Identify risk:	Risk, risk category (or risk type), sources (what would be the root cause of this happening?), impacts (what would happen as a result)
Analyse risk:	Current controls (what are we already doing that would help manage the risk?), are the controls effective?, likelihood, consequence
Evaluate risk:	Risk rating, risk acceptable?
Treat risk:	Treatments (what further action is needed?); who is responsible for treatment? Implementation timetable (e.g. month, year); likelihood (after treatment); consequence after treatment; target risk rating (after treatment); monitor, review and evaluate; Effectiveness of Treatment Strategies.
Status comments	

The DSS Risk Log (July–Aug. 2016) identified nine risks:

1. National immunisation rates fall
2. Unauthorised or inappropriate use or disclosure of information (e.g. transfer of ACIR information to ISIS)

3. Implementation issues arise
4. Legal challenge to constitutional validity of the Measure
5. Child suffers adverse reaction and parents try to sue Australian Government
6. Secretary's Exemptions don't capture all possible categories and some recipients disadvantaged
7. Technical amendments to legislation don't pass during desired sittings
8. Amendments required to National Immunisation Program
9. Incidence of fraud is identified as a result of Medical Exemptions forms being tampered with or modified which are accepted by ACIR, which is transferred to DHS system as meeting immunisation requirements.

Each of these identified risks was categorised and assessed with contingency plans for addressing the risk outlined in the risk log.

DHS Issues register & issues log

DSS NJNP Project Plan and Working Group minutes (14 May 2015) indicate that the issues register was maintained by the DHS, who would identify issues that need to be resolved, and who would also invite stakeholders to provide issues for the register. The minutes note that:

- where possible, DHS will identify the responsible policy area or areas that will need to provide resolutions; however, the register will be distributed to all members of the working group
- issues can be raised by emailing the working group secretariat or within working group meetings
- where an issue is the responsibility of all policy areas, DSS (Family Payment Management and Implementation team) will coordinate the combined response.

The Issues Register outlined a wide range of issues, which seem to have been addressed prior to the implementation of the Measure (including product and payment processing, communications and refugees), as well as issues raised after 1 January 2016 relating to:

- policy advice and design issues relating to clarification around the Secretary's Exemptions and the processes for determination, review and appeal of decisions
- payment processing issues relating to categories of children – at risk, children with disability, timing of payments and immunisation status changes – and whether exemptions apply.

The DHS Issues Log identified twelve issues, initially raised on the following dates:

1. The costs of vaccine catch-up schedules for parents with children over 10 years (18 May 2015)
2. Exemptions for children vaccinated overseas whose immunisations were unable to be verified by local immunisation providers (27 May 2015)
3. Exemptions in the case of risk of family violence (1 June 2015)
4. Non-parent carers without legal guardianship, where the parent does not allow vaccines to be given (30 August 2015)
5. Processes for determining new Secretary's Exemptions (8 September 2015)

6. Approval for the communication strategy and impact of delays in passage of legislation (17 September 2015)
7. Costs of communication strategy and whether it would trigger Government campaign guidelines (17 September 2015)
8. The negative impact of policy on vaccine objectors (17 September 2015)
9. Data software used by immunisation providers needing to be updated to accept records of older children (17 September 2015)
10. Delays in passage of Legislation (12 May 2016)
11. Immunisation history backlog processes in the state and territory health departments (17 February 2016)
12. Fraudulent medical exemption forms received by ACIR – frontline staff being bullied by parents and some forms may have been processed (14 June 2016).

Working Group & Interdepartmental Committee (IDC) minutes

The Working Group (WG) and Interdepartmental Committee (IDC) were also key to identifying, discussing and strategising to mitigate issues and risks. Issues identified in the WG and IDC minutes included:

- delays in uploading information into the ACIR
- delays in obtaining the data software for updating ACIR
- DHS system issues
- vaccine availability
- exemptions
- complex scenarios.

4.3.2 Issues and risks:

This section brings together findings from the document review and the stakeholder consultation regarding successes and challenges (including design, system, data, communications, and uptake of immunisation by the target populations) encountered in implementing the Measure.

Design

Challenges in policy design that were identified in the document review included: a potential court challenge to the legality of the Measure, coverage of the Secretary Exemption categories, fraudulent medical exemption forms and eligibility monitoring. Challenges identified by stakeholders reiterated concerns about exemption categories.

Potential challenge to the legality of the Measure

The Risk Register highlighted concerns that anti-vaxxers would launch a legal challenge to the constitutional validity of the Measure and indicated that legal advice had been sought and consultations with departmental stakeholders would continue on this issue. At the IDC on 16 March 2016, this issue was placed on a watch list for monitoring as one of the complex scenarios. DSS advised that anti-vaxxers had commenced a campaign

threatening a class action lawsuit against the Government on the Measure with 700 letters sent to representatives of the Australian Government, including the Minister for Social Services and the Hon Christian Porter MP. Despite fundraising to mount a legal challenge to the legislation, the Australian Vaccination-skeptics Network website reported on 26 December 2016 that they were advised by legal counsel 'not to proceed due to the poor chance of success and the high costs of a High Court challenge'³.

Secretary Exemption categories

The Risk Register anticipated that the Secretary's Exemptions may not cover all possible categories and some recipients would be inappropriately disadvantaged. Categories of disadvantaged recipients that were identified prior to the implementation date and were included in the list of Secretary's Exemptions included cases in which:

- the person with the care of the child, such as a foster carer, does not have legal authority to make decisions about the medical treatment of the child, due to not having consent of the parent to the child being immunised (the child must be in the care of another individual under a child welfare law for the purposes of the FTB Part A supplement)
- taking action to meet the immunisation requirements would result in the individual or the child being at risk of family violence
- the individual is a new permanent humanitarian visa holder and has not had the opportunity to immunise their child
- the child has been vaccinated overseas, remains outside Australia and the child is otherwise unable to meet the immunisation requirements, as they are unable to have a recognised immunisation provider certify that the child has received the same level of immunisation overseas (FTB only)
- the child is at risk (CCB only) (Australian Government, 2016b).

Prior to the implementation date, issues were raised about determination processes for eligibility for Secretary Exemptions and transferability of exemptions between carers of children. In both instances, clarification was provided prior to implementation. After 1 January 2016, however, two potential additional categories that were not anticipated or included in the list of Secretary's Exemptions included: children having a disruptive behavioural or developmental disorder; and reduction of the age of consent for a child to refuse to be vaccinated from 15 to 14, to ensure consistency with state and territory arrangements for consent to medical procedures (Policy issues register 105 11/1/2016). With regard to children with severe disability, it was recorded at the IDC on 2 June 2016 that draft amendments had been developed, which were with Health for approval from the Commonwealth Chief Medical Officer before progressing further.

Two external stakeholders commented on the difficulties around defining legitimate exemptions. One referred to cases where a child has extreme needle phobia, or where children have previously had an adverse reaction to immunisation. Whilst acknowledging that these types of situations can be rare, this stakeholder felt that there was no clear

³ <https://avn.org.au/2016/12/bad-news-legal-challenge-front-will-never-give-fight/>, viewed 21/02/17.

communication about what to do or how to appeal for exemption in these kinds of unusual cases. This stakeholder reported that the lack of clarity around how to manage these kinds of situations contrasts with other countries' formalised processes:

When people are genuinely doing the right thing, there should then be absolutely a pathway for them to have a formalized causality assessment and then having some sort of compensation redress. That exists in every other major English-speaking developed country in the world and wasn't contemplated here (despite being advocated in the Senate hearings). It's clearly an obligation to have that in place. (ES)

A government stakeholder also felt that certain non-medical reasons for seeking exemption, such as children with autism or needle-phobia, had not been adequately considered:

Some people can't be immunised because they might be severely autistic, for example, or very violent with regard to needles; but it's not an actual medical exemption. Things like that that we didn't necessarily cater for or anticipate or give enough thought to. (GS)

Medical Exemption forms

The Risk Log identified concerns about fraud as a result of Medical Exemption forms being tampered with or modified. At the Working Group meeting 14 June ACIR raised concerns about 'a number of suspect medical exemption forms' provided by a Victorian GP. An additional box had been inserted on the medical exemption form, indicating exemption 'until vaccines are proven to be safe by clinical studies ...'. The Issues Log on 14 June additionally noted that 'Front line staff have been bullied by parents, and some forms have been processed (and exemptions may have been given)'. DSS subsequently gave direction that these fraudulent exemptions forms were not valid and should not be processed. At the Working Group meeting on 13 July 2016, DHS advised that modified medical exemption forms were being lodged but were not being processed and were being returned to providers with a letter from ACIR advising they were not valid. DHS suggested that Health should consider undertaking further communication to inform vaccination providers on this issue. Further discussions after July 2016 were to be held in the Working Group and IDC regarding actions to be taken on this issue.

Eligibility monitoring

The primary issue with eligibility monitoring related to the accuracy of the ACIR data and delays in processing the data, as discussed further below.

System

The document review identified system challenges concerning Australian Government and state/territory interactions and vaccine availability. The former is largely concerned with delays in the states and territories uploading information to the ACIR, which is discussed below in the section on data. The external stakeholders reported concerns about increased workloads and financial costs for providers as a result of the Measure.

In terms of successes, the document review identified system responsiveness and identification and management of complex scenarios as important elements.

Vaccine availability

Health had the responsibility to report to the IDC on vaccine availability. The only potential reported shortage identified in the IDC Minutes (29 April 2016) was the Pertussis vaccine. The shortage did not eventuate and no further action was required.

Workloads and costs

The external stakeholders commented at length about how state-based services, including local councils, public health units and vaccination providers, had been overwhelmed by the increased workload that was associated with the implementation of the Measure. On top of their usual workloads, vaccination providers had to respond to parents' requests for: children's vaccination histories, ensuring that vaccination records were up to date; the development of catch-up schedules for incompletely immunised children; and the recording of overseas vaccination histories.

Providers ...were floundering and not really coping. Our public health units have had an immeasurable increase in demand. So a lot of their normal routine work had to be put on hold. (ES)

You then have this influx of parents needing their vaccine history records put on the register and they were asking GPs to do it and they'd send it to us but it isn't our job (nor GPs' jobs), so the parents were like 'Who's going to do it?', so the GPs sent the parents to local councils, who were being inundated with all of these vaccine histories and they couldn't deal with it. (ES)

This increased administrative workload came at significant financial cost to some providers:

We only receive the \$6 from ACIR for every reported vaccine that's given within the correct schedule. We got that for children caught up under 10, but not for catch-ups for those aged 10-19. And there were nursing costs as well, which is often involved as well. So we were out of pocket because we have no way of covering the costs of administering the program. (ES)

A number of the stakeholders also referred to the strain that the implementation put on supplies of vaccines, with some vaccines running low and having to be sourced from other programs:

With a program of this nature we weren't able to determine how much vaccine we would need because we didn't know how many people would take it up. So if the vaccine providers don't have a forecast they run out of supply. We've had to take vaccines from our national program because people's payments are being withheld because their kid can't get the vaccine from the GP, so we take it from our other supply from the hospitals and send it to the GPs. (ES)

We had issues trying to source vaccines – some of the vaccines ran low and we had to juggle supplies which has put a lot of pressure on our routine vaccine distribution system, so that's added a lot of financial cost for us too. (ES)

[The Australian Government] provided statements about which vaccines need to be provided but they didn't check stocks of these vaccines beforehand. (ES)

DHS system issues

A key system success relates to system responsiveness when issues were identified. The 14 January 2016 working group minutes note that two key issues were identified by DHS as likely to have an impact on recipients. s47E(d)

The second issue affected 512 child care payment recipients who were not placed on the 63-day grace period and whose payments were affected, with 60 having their payment cancelled. DHS advised that only one recipient had contacted the department about the issue. When the issue was resolved it would contact all affected recipients.

The Project status report December 2015–February 2016 notes that a system glitch in early January 2016 affected less than 5 per cent of the FTB population (approximately 73,000 recipients). s47E(d)

. Another glitch in early January resulted in approximately 500 Child Care recipients not being placed on the 63-day grace period before child care payments began to be affected. Both system issues were promptly addressed by DHS and there was no financial impact on the affected recipients.

Other ‘complex scenarios’

A working group, comprising staff from DHS, DET, Health, and DSS, was formed to consider options for ‘complex scenarios’ that could affect the implementation of the Measure. The minutes of the 16 March 2016 IDC meeting documents a range of complex scenarios that had been discussed by the working group and IDC members at a meeting on 1 March 2016. The complex scenarios were categorised into three groups:

- those requiring active monitoring
- those placed on a watch list for monitoring
- matters not likely to cause concern at this stage.

Other complex scenarios not discussed elsewhere and categorised as requiring active monitoring were:

- the impact of ACIR backlog on new recipients; DHS advised that no complaints in respect of child care payments had been received. Separate discussions on finding a solution to this issue were being held between relevant agencies
- translating services; members agreed that Health and DHS should work together to develop possible treatment to resolve the difficulties in having immunisation documentation translated to enable vaccination providers to update ACIR records
- medical exemptions; Health was exploring options to enable specialist immunologists and paediatricians to sign medical exemptions

- catch-up schedules to meet immunisation requirements in ACIR; Health and DHS were discussing the issue with states and territories, and immunisation software providers respectively.

On 27 May 2016 the complex scenarios Working Group undertook a stocktake of the current status of each scenario. Complex scenarios assessed as requiring active management included:

- medical exemptions; legislation proposals have been completed and are awaiting authority by the incoming government
- catch-up schedules to meet immunisation requirements in ACIR; immunisation software provider, Best Practice, has advised ACIR that an updated product release is imminent.

Data

The document review identified concerns being raised prior to implementation of the Measure about the quality of the data in the ACIR, delays in uploading data and the ability to monitor conscientious/vaccination objection.

The government stakeholders most commonly cited issues also relating to updating the ACIR, particularly in relation to the quality of the existing data and the data provided by vaccination providers and general practitioners; the expansion of the register to include children up to 20 years of age; the requirement for parents to update their children's past vaccination information; and the alignment of data systems.

Delays in updating ACIR

The Risk Register noted that implementation issues could arise which could influence the processing of records, resulting in impacts on payments. It rated this risk as almost certain but with low anticipated impact.

The issue of the Immunisation History Backlog was noted in the Issues Log on 17 February, with advice provided by Health that there was a substantial backlog of processing of immunisation histories developing in state and territory health departments. Health has been advised by some jurisdictions that the backlog could not be uploaded into the ACIR before the end of the child care payments' 63-day grace period. This could mean that recipients who had done the right thing and had their child immunised would have their payments impacted due to the administrative issue.

This issue was raised at the IDC *Extraordinary teleconference 19 February* where 'members agreed to develop a paper to assess viable options for consideration by lead agency Group Managers. It was agreed that PM&C and Treasury be involved in this process'.

The Project status report December 2015–February 2016 notes that this backlog was not likely to affect FTB recipients, as FTB Part A supplement is paid at reconciliation (from 1 July onwards), but would affect child care payment recipients. Health advised that some jurisdictions could not provide assurance that the backlog of immunisation history

information could be uploaded into the ACIR system prior to 18 March 2016, which was the end of the 63-day grace period for current recipients of child care payments. Consequently, the Prime Minister agreed on 8 March to pay child care payment recipients past the grace period end date until 30 April, until the processing delay issue had been resolved, and raise debts for recipients who were subsequently found to have not met immunisation requirements at 18 March 2016.

Minutes from the 7 April meeting of the IDC note that Health advised that states and territories continue to be confident that actions within the control of the jurisdictional Public Health Units were being met, to enable immunisation records to be uploaded as soon as possible. In addition, Health had signed agreements with selected Primary Health Networks to assist refugee organisations to translate and update immunisation records. Minutes from the 29 April meeting of the IDC noted that the processing delay issue had been largely resolved, with jurisdictions indicating that the accumulation should be cleared by 30 April. The minutes also noted that support had been provided by Health to Primary Health Networks in South Australia, Tasmania and Central Queensland to assist in interpreting and translating records, and to develop catch-up schedules.

The Project status report for March–April 2016 noted that Health advised that state and territory Health Departments had been progressing well, and the majority of immunisation history information had been transferred into the ACIR.

A number of issues regarding the ACIR data and processes were raised by the stakeholders, which provide further insights to the data challenges in implementing the Measure. A stakeholder reported that the tight timeframe for implementing the Measure meant that there was not enough time to access the required data to estimate the number of people who were immunised:

So we went back to publicly available data and fitted that to our purpose, which was to get an idea of how many people weren't immunised, which was quite a process. It was the best data we could get our hands on. We have the benefit of being able to access admin data. We like to think of that as being close to a perfect data set. (GS)

This stakeholder also pointed out potential issues with the quality of the existing ACIR data and raised concerns about data linkage with DHS payments systems data.

Another stakeholder also mentioned that poor quality data was provided by some health providers, further complicating the updating of the ACIR.

Also on one hand we got a lot of good data, but [health providers] have also sent us a lot of rubbish data, duplicates and so on, because they didn't understand what we needed and what was required, so they'd send us data we already had, for example, and there was a lot of manual intervention to fix that up. From their side they're probably saying we have a backlog and haven't processed it, but we're saying they sent a lot of rubbish data or incorrectly reported the numbers of vaccines that had been given. (GS)

Other stakeholders pointed out the challenges that had been presented by the expansion of the ACIR to include older children and the retrospective requirements to register vaccinations. Some spoke of missing immunisations for some children, which was attributed to a variety of possible factors, including doctors not updating immunisation records, ACIR malfunctions and DHS operator errors. Others spoke of the challenges that

many parents of older children faced in trying to locate their children's immunisation records. This was noted as a particular challenge for older children who had migrated to Australia several years prior:

Refugees and immigrants ... if they came to Australia after 7 years old we didn't have the data on the ACIR ... so there were massive backlogs and they all had to wait until they were recorded so they could receive their payments. It was also very hard to interpret data from foreign databases and sources and then they have to be put on catch-up programs, so there were backlogs in practices and other community centres and community health centres. (GS)

The external stakeholders echoed these concerns about the complications involved with updating records on the ACIR, as well as issues arising from missing and incomplete data. Concerns about data quality and data linkages between the ACIR and the Centrelink payment system were considered particularly pertinent when access to financial payments was at stake.

Parents were being told that their payment was at risk but no information was given to them about what vaccines they lacked, so there was no start point apart from looking at the register and trying to work it out. Very few were simple cases who had never had their kids vaccinated. Quite often they had no knowledge that their register wasn't complete. (ES)

The biggest issue was trying to assist people with their child's vaccination records. We have a state register here too which not all states do. Individual providers with electronic software send info that goes to the ACIR and [state] database, but the [state] database collects a lot more info. The NJNP was related to children over 10 but our register only went up to 10, and also the two registers don't align in all areas. So it was very complex. We didn't have time to think through or plan all this so we're playing catch-up and a lot of kids are getting additional vaccines because there's no record. (ES)

Some government stakeholders pointed out other unforeseen complications in requiring older children to have their vaccinations registered on the ACIR. Unanticipated challenges included the fact that privacy laws prevented parents from accessing their children's immunisation records if they were over 14 years; and free vaccines were not available to older children over 10 years if they were a new recipient.

So we had to give these 14–20 year olds the ability to access their own records, after which their parents could access the records. (GS)

There's an issue with older children if they've missed vaccines. If you're a new customer from 1 January you can't access free vaccines. So if your child is older than 10 you now need to pay for it. (GS)

It only incentivises families for kids getting family payments. There might be an opportunity to continue funding for that free vaccine program for 10–20 year olds. (GS)

In spite of the many challenges identified by stakeholders, both government and external stakeholders pointed to the positive effect the Measure had on updating the ACIR and on improving data quality:

By extending the ACIR up to 20 years old, it gives a more comprehensive view of the immunisation records. So people are more up to date, data gaps are fewer, and so on. (GS)

When the system change was made on the 1st of January there were a few glitches but nothing like the Census. (GS)

At its heart the policy is aiming to increase rates and accurate reporting of immunisation coverage and provide accurate data on the proportion of people protected from disease. So it's been a very positive outcome in driving public and providers to ensure that the register data is improved. (ES)

Monitoring conscientious objection

One of the three mechanisms of the Measure was the removal of conscientious objection as a valid reason for seeking exemption from vaccination. In removing this exemption category from the ACIR, concerns had been expressed in the Senate inquiry that implementation of the Measure would remove the ability to track rates of conscientious objection (now referred to as 'vaccination objection'). This was echoed by both government and external stakeholders, who expressed concern that it would no longer be possible to track this group. One stakeholder thought that this group would become 'silent' conscientious objectors, whilst another expected that the number of medical exemptions would increase:

You used to be able to measure conscientious objectors but now you can't measure it – we want to measure how many people have never had any jabs. They're probably gonna become 'silent conscientious objectors' and because they're not claiming payments they're now under the radar. (GS)

I'd measure medical exemptions – have those numbers changed? I think a lot of people in the past may have been recorded as conscientious objectors instead of medical exemptions by the providers, incorrectly. (GS)

The ability to see who was actually a conscientious objector has been lost. There should still be a capacity to have some understanding of why people are not up to date. The register needs to reflect things like whether people have left the country too. We really don't know where the gaps in coverage are. (ES)

One government stakeholder made reference to this loss of data and reported that they had had to come up with a workaround to be able to track conscientious objectors:

So we worked with DHS and [DET] to come up with a solution: we took snapshots of our customers before January 1 on conscientious objector status because we can't track them through the ACIR anymore. (GS)

The minutes from the 15 December 2015 IDC meeting note the Senate Inquiry's recommendation that a paper be developed at Working Group level on agreed proxies and principles for monitoring 'conscientious objection'. The IDC agreed that the Government investigate a means of continuing to monitor conscientious objection if the Bill is passed. Health advised that the New South Wales Government was developing its own conscientious objection form, which would allow parents to enrol their child in child care centres. This highlighted how the differing policies and approaches in regard to immunisation requirements and child care centres by individual states and territories was an issue of concern. However, only medical exemptions approved by the Australian Government would be acceptable for child care benefit purposes. Conflicting jurisdictional requirements were noted as likely to lead to parent confusion.

Other government stakeholders pointed out that the 'conscientious objector' statistics from ACIR could never be considered a comprehensive picture. There was not a requirement to

'register' as a 'conscientious objector,' and was only there to enable people to access linked payments.

Communications

Communication strategies and activities for the Measure are described at length in Section 4.6. Internal communications for the Measure included interdepartmental communication around governance and implementation issues, communication with relevant Ministers' offices, and communication to departmental staff, who would be dealing with recipients and would be required to provide the correct information. Key target audiences for external communications were: parents, vaccination providers and third parties, including community organisations, child care providers, education and training providers, and software vendors.

In the document review, the Risk Register identified effective internal and external communication strategies as a corrective action for a number of the risks identified. The Issues Log identified two internal issues on 17 September 2015:

- that the 'communications strategy still to be approved and delays in implementation due to legislation may impact on communication activities'. This issue was resolved and the communications strategy approved.
- the Communications Advice Branch (CAB) in the Department of Finance had advised that paid advertising on Facebook may trigger the Australian Government campaign guidelines because the spend may exceed \$50,000. This issue was resolved and the communications strategy approved.

The main challenges about communication that were identified by stakeholders related to external communications.

The external stakeholders were particularly unhappy with the lack of consultation from government departments about the impending implementation of the Measure. Many felt that they were not provided with adequate or timely information to enable them to brief both immunisation providers and the public about how the Measure would affect them.

It's been one of the most difficult things we've ever had to implement. Our role with the little information that we were given was to let immunisation providers know and communicate to members of the public, and also feedback up to the Commonwealth what we needed. (ES)

First we heard about it was about 16 months ago, a teleconference on 8 May with the Department of Health that it was happening – no asking us before or consultation, just that it was happening. We had no idea basically. We didn't really know for a number of months what our role was or what we had to do. It was hard to prepare our people without having enough information. So doing that communication was very difficult. (ES)

One external stakeholder contrasted the implementation of the Measure with the Victorian's government's implementation of a similar measure, which the stakeholder felt was far better managed: 'They had really comprehensive information and processes. The implementation was very good. We were very well consulted leading into that'.

Uptake of immunisation by the target populations

Both government and external stakeholders highlighted some of the successes of the Measure. Some government stakeholders focussed on the short-term outcomes of the Measure, such as having raised awareness of immunisation in general, as well as an overall increase in immunisation rates. 'We've made people change their behaviour – we may have targeted the conscientious objectors, but recalcitrant parents have [also] gone out and got their children vaccines.' (GS)

A media release from the Hon Christian Porter MP, Minister for Social Services, on 6 November 2016 states that '[s]ince the last quarter, an additional 39,369 children who were not fully immunised at 31 December 2015 now meet immunisation requirements across Australia. This takes to 187,695 the number of children now meeting immunisation requirements who weren't up to date with their immunisations at the launch of the Measure on 1 January this year.' (Porter, 2016b). It is unclear whether these figures reflect a response to the Measure, whether they are significantly greater than they would have been without the Measure or whether they are reflective of general trends in immunisation uptake that would occur over the usual course of a year.

One of the key issues was whether vaccine objectors would change their behaviour in response to the Measure. Historical ACIR figures show that the percentage of children with a conscientious objection recorded increased each year between 1999 and 2014 from 0.23 per cent in 1999 to 1.77 per cent in 2014. Between 31 December 2014 and 31 December 2015, the percentage of children with a conscientious objection recorded declined for the first time, from 1.77 per cent to 1.34 per cent

(<http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/acir-cons-object-hist.htm> viewed, 11/11/16). It is possible that some of this decline in 2015 could be a response to the announcement of the proposed Measure, however, this cannot be stated categorically as there were several other measures that may have influenced immunisation uptake, including measures undertaken by Health.

A media release from the Hon Christian Porter MP, Minister for Social Services, on 31 July 2016 states that '[m]ore than 5,738 children whose parents are receiving child care payments and were previously registered as vaccination objectors have had their child/ren immunised since the launch of the Government's No Jab, No Pay policy' (Porter, 2016a). It is unclear whether these figures reflect a response to the Measure, whether they are significantly greater than they would have been without the Measure or whether they are reflective of general trends in immunisation uptake that would occur over the usual course of a year.

External stakeholders agreed that families from disadvantaged backgrounds and those who had inadvertently fallen behind with their immunisations may have been motivated to complete their children's vaccines as a result of the Measure.

We have a large number of low SES families and we found that a lot of people don't complete their schedule not because they object or any principled reason, just because it's difficult to make appointments or attend any health service, especially when mental health issues or drug issues are added. So these latter people were often suitably motivated to get their kids vaccinated, which was great. (ES)

It has given people that bit of incentive to get back on track where they've fallen behind, or tip people over who have been on the borderline. (ES)

External stakeholders also felt that, despite the difficulties they had encountered during implementation, the Measure had appeared to improve immunisation rates.

Our report in June shows that our percentage coverage has gone up; but I don't know if we can attribute that to this policy. (ES)

Going on the data that's been released by the Commonwealth, it does look like there's been improvements in rates, especially in the 'catch-up' community. (ES)

Eligibility for CCB and FTB payments

Against these successes there were also concerns raised in submissions to the Senate Inquiry that the policy could have unintended negative consequences on some payment recipients losing eligibility, particularly low income families and other families who may face barriers to vaccination (Senate Community Affairs Legislation Committee, 2015:15). To date, publically released data from DSS includes Ministerial media releases as well as data published in the DSS 2015-16 Annual Report. Data on post implementation impact from the IDC and Working Group minutes show the following:

Eligibility for Child Care Benefit (CCB) recipients:

- on 1 January, 140 000 CCB recipients were to be sent advice that they had entered the 63-day grace period (WG 15 December 2015). DHS advised that as at 25 March 2016 there were 40 000 CCB recipients with at least one child in a grace period, including 7 300 former conscientious objectors (IDC, 31 March 2016). This appears to reflect a substantial decrease in the number of recipients in a grace period in a relatively short timeframe
- on 2 May 2016, a total of 48 160 recipients had their child care payments reassessed, and lost eligibility for one or more children in their care who had not met the immunisation requirements. Of these, 24 059 had child care attendance recorded since 1 January 2016 and therefore had an immediate cancellation or reduction in their child care payments. Up to approximately 19 000 recipients may be issued with a debt as a result of payments extended to 30 April 2016. This work is scheduled to be undertaken on 23 July 2016 (IDC 2 June 2016).

Eligibility for FTB-A supplement payments from IDC (2 June 2016):

- the latest FTB reminder mail-out had taken place from 16 to 27 May 2016 with 304 301 letters sent to FTB recipients at risk of losing their FTB Part A supplement payment for 2015–16 if immunisation requirements were not brought up to date
- information was now available to support a snapshot based on known immunisation status for Family Tax Benefit recipients
- of the approximately 3 million children, DHS expected that 2.5 million would attract a full-year FTB Part A supplement payment, as they would have met immunisation requirements. Approximately 31 000 (predominantly 1, 2 and 5 year olds) were

expected to have their full supplement payment withheld, as they would not have met immunisation requirements for the full financial year, and approximately 302 000 were expected to receive a part-year supplement payment as they had not met immunisation requirements, but were not subject to these requirements prior to 1 January 2016.

Two additional factors should be noted regarding these numbers of families whose eligibility may be affected: the figures for 2016–17 may be lower as the income limit for FTB Part A Supplement is \$80 000 from 2016–17 and recipients have a year after the end of the financial year to meet reconciliation conditions. The issue of loss of eligibility for payments, and whether there were any unintended consequences relating to disadvantaged families losing payments, should be explored in the Impact Review.

4.3.3 Summary

Effective policies and procedures were established to identify issues and risks that could negatively affect implementation of the Measure. In the first six months of implementation, several challenges that could potentially derail the smooth implementation of the Measure were identified. [s47E\(d\)](#)

Actions were promptly taken to minimise impact. An identified risk/issue that does not appear to have been adequately resolved concerns the loss of ability to track conscientious objectors.

4.4 Governance

This component of the PIR explored whether governance and decision-making mechanisms helped or hindered the successful implementation of the Measure.

The governance structure established for the Measure included a high level Interdepartmental Committee (IDC) and a Working Group to handle practical implementation issues. These were in addition to the ‘business as usual’ governance arrangements in each agency. The Working Group and the IDC met on a regular basis, with the Working Group meeting fortnightly prior to implementation, and monthly post-implementation. The IDC met monthly, although extraordinary meetings were held as required (DSS Evaluation Background Summary 2016:2). There was also a separate Communications sub-committee, as well as some department-specific steering committees. The IDC will continue to meet until the impact evaluation is completed with meetings held quarterly. The Working Group will also continue while the IDC exists.

4.4.1 Interdepartmental Committee (IDC)

The Interdepartmental Committee (IDC) had as its membership senior executives from the four agencies responsible for implementation of the Measure – DSS, DHS, Health, DET – as well as representatives from the Departments of Finance, Treasury and the Prime Minister and Cabinet. The IDC first met in September 2015 and has met every six to eight weeks or as required, with the most recent meeting held on 14 September 2016. The terms of reference for the IDC were to inform the development of the Measure by:

- facilitating cross-agency engagement to ensure all relevant agencies are aware of their responsibilities in progressing work to support the comeback
- establishing a forum for issues resolution, change of management and risk management for issues that arise in the implementation and communications working groups⁴
- providing oversight and guidance to the Working Group for the implementation of the initiative; guidance may also be sought from the Ministers as required
- providing oversight and guidance on communication and media strategies around implementation of the Measure
- working with key stakeholders involved in implementing the Measure to ensure the delivery of intended outcomes.

4.4.2 Extending Immunisation Requirements (Immunisation) Working group

The Working Group includes staff from the four line agencies, with representation from a range of areas within each agency, such as communications, data, the ACIR and various functions within DHS. The Working Group commenced meeting in May 2015 and met every 2–3 weeks through 2015 and 2016. The working group was chaired by DSS with documentation to be maintained by various Departments listed in the Working Arrangements documents. The Working Group was responsible for managing the practical side of the implementation of the Measure. Its purpose was ‘to identify, discuss and where possible resolve policy, legislative, systems, budgetary or communications issues in relation to the implementation of the new immunisation requirements and the catch-up program’ (EIR Working Group - Working Arrangements:1). Where appropriate, the Working Group was expected to escalate issues to the Immunisation Steering committee (later known as the No Jab, No Pay IDC).

As noted in the Issues and Risks section (Section 4.3.1), the IDC and Working Group were the key to identifying, discussing and strategising to mitigate issues and risks that might negatively affect implementation of the Measure.

⁴ Communication from departmental staff indicates that the communications working group was not a formal working group and it met on an ad hoc basis.

Stakeholder perspectives

The stakeholder consultations offer some perspectives on the Measure's governance arrangements.

The government stakeholders generally agreed that the IDC and Working Group had been effective and helped the implementation of the Measure. Stakeholders praised the composition of the groups, the regularity with which they met, and their effective processes:

All the relevant people from the policy departments attended and made it a priority. People responded quickly when we needed them to. (GS)

They certainly helped. In such a complicated space, the governance worked well. The two groups had very different remits, but to get such a big thing implemented in such a short period of time was due to having all those senior people driving action and meeting regularly. (GS)

On the steering group there were a lot of very senior staff from across agencies, so it was good for everyone to touch base and put their cards on the table and say what they could or couldn't do. Things that were 'impossible' sometimes became possible. (GS)

Several government stakeholders noted the effectiveness of having a single department, DSS, as the lead department, given that multiple departments and stakeholders were involved in implementing the Measure. DSS were able to act as a central point of contact as well as drive the governance actions around implementation. ‘

DSS is always highly responsive and focussed on the task and threw a lot of resources at the task.’ (GS)

Whilst having DSS as the lead agency was regarded as an efficient arrangement, some stakeholders felt that this arrangement had its challenges when some departments were overlooked or particular issues were not considered a priority:

So sometimes it worked well with DSS as the lead and other times we were an afterthought or decisions were made without consideration for [our department], so we might've had to go back and revisit things, or had no choice in the matter. (GS)

It would be good to look at how the different agencies work together. From an administrative point of view, that's where things could've been easier, in terms of the way different agencies interact and communicate with each other. With DSS working in the coordinating role for this measure it means that we need to rely on them but they may think certain things are 'optional'. (GS)

This stakeholder referred to the extension of payments beyond the initial grace period due to the delays in uploading data to the ACIR as an example of how the governance arrangements could complicate the decision-making process:

The IDC's involvement in this slowed the process because of the number of meetings necessary. They didn't make a quick decision and action it. Everyone had to see the letter that would go out to families. The way it was handled caused a lot of heartache for a lot of people. DSS and other departments probably had more input into the outcome than I felt it should have, so it was something that probably could've been knocked on the head in a couple of weeks, but instead it took months and had to go to the PM before a decision was made. (GS)

The external stakeholders did not feel that the governance structures ensured that they were adequately informed of how implementation of the Measure was likely to affect them, nor did they feel that their concerns had been acknowledged:

We got certain information but it was very infrequent and coming in statement form that told us the big picture but didn't help us with any of the complexities of program delivery. Even basic information like 'we've sent x number of letters to clients in your state or council area', which would have given us a heads up to the volume of demand coming our way. (ES)

When we were highlighting our concerns about the implementation, I felt that it didn't matter how many difficulties this program was going to create, or how much it hurt disadvantaged people, there was no way the policy was going to be stopped, regardless of how badly it was implemented, and I thought that was so wrong. (ES)

Additionally, some external stakeholders felt that the governance arrangements for implementing the Measure, with DSS as the lead agency, made the implementation process all the more difficult for health providers who were more accustomed to dealing with Health. There was a sense that DSS did not have an adequate understanding of 'on the ground' implementation issues for what was considered to be a health initiative.

Normally our interaction is with the Department of Health but this was with DSS. That caused some issues in that we don't see communications between departments and it seemed that DoH people were in the middle and put in a difficult situation. It had significant implications for state and territory public health units and immunisation providers but there were no opportunities to go back 'direct to source' to DSS but rather through DoH. (ES)

It's run out of two branches of DSS and DHS and it's really a health initiative. I find there's a disconnect. DHS are not charged with delivering health preventative measures. So having it run out of them has posed difficulties. There may be broader strategic and governance issues around what is the overarching aim of the policy which needs to be addressed by a high level governance or advisory group that can advise both branches of government. This is not a DHS measure at its core – it's about people's health. (ES)

4.4.3 Summary

The successful implementation of the Measure was bolstered by the establishment of effective governance structures at a range of levels, with the higher level Interdepartmental Committee (IDC) and a Working Group, ongoing governance structures in each department, and a communications sub-committee. These structures were effective in identifying and strategising to mitigate issues and risks.

4.5 Service delivery

The review examined whether the service delivery model resulted in impacted recipients having positive or negative encounters. The documents reviewed provided little insight into service delivery, however the stakeholder consultation did.

Government stakeholders and external stakeholders were asked about the impact of the Measure on targeted recipients, and whether recipients' experiences were generally positive or negative. Most government stakeholders felt that impacted recipients had had a positive experience with the new requirements. This was largely attributed to the public's acceptance of the overall aims of the Measure.

As a whole the general public seem to be really accepting of the Measure and think it's a good idea. (GS)

Because I think the general community response to the policy has been positive and by and large the majority of the community is supportive of increasing the vaccination rates and as such don't have any problems tying it to receipt of payments. Most customers meet the requirements so aren't negatively affected. (GS)

Hopefully the majority have had a positive experience meeting the requirements as we've tried to make it as painless as we can, but when you're dealing with millions of people not everyone will have a smooth experience. (GS)

Government stakeholders nominated two areas in which recipients' experiences were negative. Firstly, there was some confusion for recipients around the process of updating their children's vaccination details in ACIR, as well as delays for some recipients in having their records updated due to data bottlenecks and issues with the link between the ACIR and Centrelink databases.

There's been some noise around the actual process to get your records updated and how long that takes, and the admin process between Centrelink and the [ACIR]. (GS)

There might've been a lot of frustration from those who may have been up to date but got a letter saying they weren't up to date. They would call us and ask why the records weren't sent to Centrelink but we need some sort of trigger mechanism to give us authorization for us to establish that link. Centrelink don't know if parents are up to date – we have to provide that record to them. (GS)

Depends on the payment. For FTB customers, targeting the older cohorts, there was a lot of confusion and people were rushing to get their kids immunised, which is good, but they may have put pressure on other services. (GS)

Secondly, Government stakeholders noted that vaccine objectors were often strongly opposed to the requirements of the Measure:

The anti-vaxxers obviously hate this measure and are very vocal about it and trying to find any loopholes or ways around it, which led to some challenges. (GS)

For those elements who aren't in favour or are conscientious objectors, they have received the policy in a negative way and if they've chosen not to meet the requirements their payments are affected, and they have a negative experience. (GS)

The external stakeholders characterised recipients' experiences with the implementation more negatively than did government stakeholders. The external stakeholders generally felt that recipients' experiences were dependent on their child's vaccination status, highlighting the difficult experience many immigrants had in fulfilling their obligations, as well as the perceived inadequate communication around the Measure from the government. The external stakeholders felt that a lack of knowledge and confusion around the implications of the Measure caused anxiety for many parents:

This caused a lot of angst, and a lot of angst for people who've come from overseas and may not know the system. If their children are say 12–14 and have come 3–4 years ago, they've suffered the most because they'll often need catch-ups. English may not be their first language. It can be quite traumatic, and they're shoved from pillar to post, they're trying their best and are being almost punished. They expect us to know things that we really just didn't know. (ES)

My sense is that the people who were impacted were either not wanting to get their kids vaccinated or had lost track or never got around to it. But a lot of people probably did go to get their kids vaccinated [as a result of the Measure]. We heard from the more difficult cases I guess. (ES)

The policy has caused a tremendous amount of anxiety due to the threat of withdrawal of payments, especially for parents who have thought they've done the right thing and want to continue to do the right thing. For example, a father who moved from the Philippines and was quoted \$1000 to get his children's immunisation record translated. He was desperate to get his children registered and up to date. Eventually it was paid for him, but that was incredibly complex and challenging. (ES)

Some external stakeholders also spoke of parents' anger about the Measure with one reporting that they had had to employ a security guard at their clinic to manage frustrated and angry parents who were threatening staff:

Parents might've had to wait for the service because numbers went up and complexity of cases went up, so we had people threatening harm to our staff, so we ended up employing security guards at our clinics. We even had one person arrested because of the level of the threatening behaviour they were exhibiting. I wouldn't blame all this entirely on the policy but it created that level of pressure on people to get caught up to avoid the potential impost. (ES)

It is possible that parents' anxieties and concerns could be related to the short time period between the announcement of the Measure and its implementation. If some parents had missed out on the announcement of the legislative change, notification of a potential change in their family payments may have come as a shock, particularly if they were unaware of how to rectify the situation.

4.5.1 Summary

Only the stakeholder component of the methodology provided any insights into the impact of the Measure on the service delivery research question – has the service delivery model resulted in impacted recipients having positive or negative encounters? An important caveat is that these perspectives are a step removed from actual recipient experience of the impact of the Measure. The government and external stakeholders' views diverged, with government stakeholders taking the view that recipients were largely receptive to the Measure and had positive experiences overall. The key challenges they noted related to updating immunisation records and opposition to the Measure from conscientious/vaccination objectors. External stakeholders, on the other hand, appeared to have more direct contact with affected parents and characterised their experiences more negatively. They referred to perceived inadequate communication about the Measure, the challenges faced by parents whose children were vaccinated overseas and parents' confusion about the implications of the Measure. As noted by one of the external stakeholders, it is likely that vaccination providers had more contact with parents who had been negatively affected by the Measure than those who simply responded to the Measure by updating their child's immunisations without any complications. In addition, the vast majority of recipients did not have to do anything – fill in any form, contact Centrelink, ACIR or any vaccine provider, or change their behaviour – because their child(ren) already met the vaccination requirements. It will be important to engage directly with parents in the impact evaluation.

4.6 Communications

The PIR was guided by two key questions with respect to communications. These were:

- Did the communication strategy and Departmental communication plans successfully support the implementation of the Measure?
- Did the Communication Working Group effectively manage communication issues as they arose?

No documentation concerning the Communication Working Group (CWG) was provided to the research team and subsequent communication indicated that the CWG was an informal working group: it met on an ad hoc basis and no minutes were taken. The CWG did not come up in the stakeholder consultations either. Therefore, the PIR focuses on the first question above.

The Measure's communication activities were a joint responsibility of DSS, Health, DHS, and DET. The *Extending Immunisation Requirements (No Jab, No Pay) Communication strategy*, (Communication and Media Branch, 2015) from DSS finalised in November 2015 outlines the agreed overarching communication approach used by the Immunisation Working Group. Complementary communication strategies were developed by DHS and Health.

The *Extending Immunisation Requirements (No Jab, No Pay) Communication strategy* (EIRCS, hereafter) describes the aim of the strategy as 'to raise awareness among target audiences of the changes to immunisation requirements and the impact on CCB, CCR and FTB Part A recipients'.

Table 3 below⁵, from the EIRCS (Communication and Media Branch, 2015, p. 5) outlines the objectives of the strategy and the departments responsible for communicating with the different audiences:

Table 3 NJNP communication objectives, department responsible & target audience

Objective	Responsibility	Audience
Inform all families with children under 20 (including special audiences) about the proposed changes and the impact on payments	DSS, DET	Primary A Families with children under 20 (including families receiving these benefits and families that might claim in the near future)
Raise awareness among current CCB, CCR and FTB Part A recipients who do not meet the immunisation requirements for their children of the steps to catch-up on their child's	DHS, DSS, DET	Primary B Parents of children under 7 who do not meet the immunisation requirements and currently receive CCB, CCR and/or FTB Part A supplement

⁵ Adapted to include the defined audience.

Objective	Responsibility	Audience
immunisations and ensure continuity of payments		Primary C Parents of children aged 7 to under 20 who do not meet the immunisation requirements and currently receive CCB, CCR and/or FTB Part A supplement
Raise awareness of the changes among immunisation providers Details set out in Health's communication strategy	Health	Primary D Immunisation providers (including general practitioners and immunisation clinics)
Inform child care providers about the changes and offering them information to pass on to their recipients (if they choose)	DET	Secondary: <ul style="list-style-type: none"> • Child care providers <ul style="list-style-type: none"> ○ Long Day Care providers ○ Family Day Care providers ○ Outside School Hours Care providers ○ Occasional Care providers ○ In Home Care providers • Child care peak bodies • DHS service centre and call centre staff including ACIR, Multicultural Service Officers and Indigenous Service Officers. • Family and Relationship Support providers

The EIRCS notes that the parents of incompletely immunised children fall into one of two categories. These are:

1. vaccine objectors, and
2. 'families who are behind in their immunisations because they face social, economic or geographic barriers to access' (p. 6).

The strategy notes that different communication strategies will be required for these two groups.

The EIRCS notes that vaccine objectors tend to be more affluent and educated and that communication messages should focus on their right to vaccinate or not, but that choosing not to vaccinate will result in losing eligibility for certain family assistance payments. The EIRCS notes that the second category of parents whose children are incompletely immunised is more likely to include larger families, single parent families and socially isolated families. It notes that communication messages should focus on 'the practical support available to help their children catch-up on immunisations, including free vaccines

for current recipients' (p. 6). The EIRCS notes that DHS would prepare a tailored communication strategy for Indigenous and culturally and linguistically diverse families.

The communication strategy key messages are listed as:

- a five-point overarching narrative focusing on: the health of Australian children as a Government priority; immunisation as the safest and most effective way to protect against vaccine-preventable diseases; the real threat vaccine-preventable diseases, like polio, tetanus and diphtheria, pose to our children; figures which indicate that while Australia has childhood vaccination rates of more than 90 per cent, a concerning number of children are not vaccinated because their parents are vaccine objectors; and immunisation requirements for a number of family payments as being strengthened in the interests of children's health.

Additional key messages in the strategy relate to:

- changes to payments
- how to catch-up
- messages to child care providers; parents may become liable for the full cost of child care, and providers can set their own policies about accepting unimmunised children
- messages to health care providers; documented in the Health Communications strategy.

The EIRCS lists a range of key issues that were foreshadowed as potential implementation risks and the communication mitigation strategies that could minimise the risks. Identified communication risks included:

- *complexity*; the fact that the impact of the Measure varies depending on a range of factors including the age of the child, and the type of payment received
- *segmented audiences*; different audiences will require different information
- *timing*; adequate notice needs to be given to affected families, however some of the systems that support the new requirements would only be available from 1 January 2016
- *legislation*; it was noted in the EIRCS, which was finalised in November 2015, that the NJNP Bill would need to be passed by 3 December
- *drop dead dates*; three different outcomes depending on the date the legislation passed were outlined in the EIRCS
- *committee*; the fact that the Bill was referred to the Community Affairs legislation Committee for a public inquiry was noted as having a potential impact on the implementation date
- *paid advertising*; the costs and sensitive nature of the Measure were identified as risks that would require review by the Special Minister of State
- *vaccine objectors*; increased resistance from the anti-vaccination lobby was identified as a potential risk, with the emphasis on choice to vaccinate or not as the communication mitigation strategy of choice

- *child care service providers*; concerns that child care centres may see an increased in debts if families lose eligibility for payments
- *notifying lump sum recipients*; the identified risk was that they would miss out on the initial letter, but would be informed via indirect communication activities and would receive letters later in 2016
- *cost of doctor appointments*; vaccines would be free for eligible children but families may still incur costs when they visit an immunisation provider
- *software used by immunisation providers*; updates were required for the software used to report children's immunisation records, which could delay the reporting process
- *impact on child care centres*; a risk is that child care centres could be financially affected by the Measure; therefore it would be important to communicate with child care centres to ensure that they provide information to their families
- *Queensland, NSW & Victoria child care policies*; the interplay between state-based No Jab, No Play policies and the Australian Government No Jab No Pay Measure would require tailored messages for the three states

In each case, the EIRCS outlines a communication mitigation strategy to minimise the identified risk.

In addition to developing the EIRCS, DSS undertook a range of activities to support implementation of the Measure. The minutes of the working group meetings outline the actions taken by DSS and the other departments in the lead up to and after the implementation of the Measure.

4.6.1 Department of Social Services

A budget of \$277 377 (exc. GST) was allocated to the Department of Social Services component of the communication activities (from DSS Response to questions on Notice 6 November 2016). A number of communication activities were undertaken by DSS to inform parents, service providers and other stakeholders of the changes. Activities included:

- *information to child care centres*; Child care centres would be sent information via the Child Care Management System, which would include a printable PDF poster that centres could display, immunisation-specific text to send to families in newsletters, and questions and answers (See Section 4.6.4).
- *media pack*: DSS prepared a media pack that included a joint media release, shell announcements, talking points, questions and answers and newsletters.
- *social media campaign*: The research team were provided with a final report (in the form of a PowerPoint presentation) prepared by the media agency behind the social media campaign initiated by DSS that aimed to raise awareness of the changes associated with the introduction of the Measure (a final evaluation report is under development). The Facebook campaign ran from 7 December 2015 to 18 March 2016, targeting particular audiences and regions, and delivered over 9.5 million impressions (advertisements) and a click-through rate of 0.48 per cent (the

12 February minutes report that the average government benchmark click-through rate is 0.05 per cent). Advertisements linked with keyword searches delivered a click-through rate of 2.66 per cent (linked keywords included: 'no jab no play', immunisation, vaccination, immunise, 'no jab', vaccinate, 'Centrelink payments', 'immunisation register', 'Family Tax Benefit' and 'immunisation schedule'. An additional 7.25 million impressions were delivered. The campaign included geographic targeting of low immunisation areas and high objection areas. These often overlapped and included Coffs Harbour (NSW), Gold Coast (Queensland), Epping (Victoria), and Perth (Western Australia).

It was noted in the 15 December minutes that the DHS *Immunising your children* webpage had a five-fold increase in visitors compared to the same time the previous year and that the DHS ACIR webpage has also had an increase in traffic. The 7 December 2015 minutes noted that between 1 December 2015 and 8 February 2016 there were 541 mentions of No Jab, No Pay in the media on TV, radio and print news (including regional), as well as online and on social media, and that only 12 per cent of the mentions were negative. The 14 January 2016 minutes note that there were few media enquiries, with the minutes attributing this to the media probably sourcing information from publically available information on websites.

4.6.2 Department of Health

A communication plan from Health for general practitioners and vaccination providers was developed as part of the 2015–16 Budget Measure commitment to funding complementary measures to improve immunisation coverage rates (Australian Government, 2015c). This comprised \$26.4 million over four years to Health to fund activities to:

- support parents and carers to make informed decisions about immunisation
- expand the National Human Papillomavirus (HPV) Vaccination Register
- provide a \$6 incentive payment for vaccination providers who identify, call in and vaccinate children up to seven years of age who are more than two months overdue for vaccination, and record the information on the Australian Childhood Immunisation Register (ACIR). Providers would receive a payment for each NIP Schedule point caught up.

The communication plan lists:

- the communication objectives
- the target audiences for communication: primary audience includes general practitioners and vaccination providers, with an emphasis on those working in rural, remote and indigenous communities; and secondary audience is vaccine-hesitant parents/guardians
- the stakeholders, including the Australian Indigenous Doctors' Association, The National Prescribing Service, Primary Health Networks, and state and territory health departments
- the key messages for health professionals (about the new immunisation requirements), changes to ACIR and messages for vaccine-hesitant parents and carers (including reference to the development of new resources).

The communication plan notes the necessary collaboration with state and territory governments and advisory committees for informing the content of the communication products and activities developed. The communication plan outlines the resources that would be developed, stakeholder engagement plans and information to be added to the *Immunise Australia* website and hotline. The communication plan noted that Health would communicate with vaccination providers prior to DHS undertaking the mail-out to parents in November 2015 (Australian Government, 2015c).

The working group minutes report on the activities undertaken by Health:

- *catch-up information*; the 8 December 2015 minutes note that catch-up information, including factsheets, had been dispatched to vaccination providers in addition to resources for vaccine-hesitant parents. The 18 December 2015 minutes noted that there had been an increase in the number of children commencing immunisation catch-up schedules. The minutes attribute this increase to confusion about the grace period, with many people believing that they had to complete their immunisations by 1 January or their payments would stop
- the 18 December minutes also noted that there was confusion surrounding conscientious objectors, with some people believing that if they enrolled by 31 December 2015 their conscientious objection would hold and they would receive child care benefit for 2016. It was surmised that the source of this confusion may have been information on the NSW Health site concerning the NSW conscientious objection form. Further advice was provided to child care services to advise that the NSW conscientious objection form related to enrolments and did not exempt families from immunisation requirements for NJNP.

4.6.3 Department of Human Services

DHS also developed a communication implementation plan. The communication implementation plan presented a 'program summary' that outlined the announcement of the Measure and changes to immunisation requirements for eligibility for family payments for recipients who receive:

- Child Care Benefit (CCB)
- Child Care Rebate (CCR)
- Family Tax Benefit Part A supplement
- Grandparent Child Care Benefit (GCCB)
- Special Child Care Benefit (SCCB)
- Jobs, Education and Training Child Care Fee Assistance (JETCCFA).

The summary noted that the immunisation requirement would apply to children and young people up to age 20, that conscientious objection was no longer a valid exemption category, and that the ACIR would be extended to capture immunisation details for people up to age 20.

The communication implementation plan gives a summary of the four target audiences for communication activities:

- parents and carers who receive CCB, CCR, FTB Part A, GCCB, SCCB or JETCCFA
- vaccination providers
- third parties (community organisations, child care service providers, education and training providers and software vendors)
- staff

The communication implementation plan notes that among the first group – parents and carers – approximately 200 000 would be impacted by the changes and would need to either ensure their child’s immunisation status was up to date, or seek a medical exemption. The communication implementation plan emphasises that communication to the second group – vaccination providers – should make it clear ‘that medical exemptions should only be given for medical reasons indicated on the Immunisation Exemption Medical Contraindication form’. The communication implementation plan noted that although the third group – third parties – are not directly affected by the changes, ‘they need to be informed about the changes so that they give correct information to customers who will be affected’. The communication implementation plan noted that DSS was responsible for communicating with this group. The fourth group was staff who ‘need to be informed about the changes so that they give correct information to customers who will be affected’.

The communication implementation plan outlines the objectives and key audiences for the five key messages about the policy change and the potential impact on family payments if a child’s immunisation status is not up to date. The document outlines the range of communication activities targeting the four key audiences noted above. Activities targeting recipients receiving the affected payments included updating webpages on www.humanservices.gov.au, publishing articles in a range of outlets, publishing factsheets in a range of languages, and posters. Activities including KPI metrics and costs are listed in the communications implementation plan.

The communication implementation plan also notes the communication activities being undertaken by DHS and Health targeting health professionals, parents and broader community, members of the House of Representatives and senators, and media. Communication with DHS staff has confirmed that the department is undertaking its own post-implementation review to be completed in the near future.

In addition, the WG and IDC minutes outlined the range of communication activities undertaken by DHS.

- *General information letters:* The 15 December minutes report that DHS had dispatched general information letters to 442 000 customers, receiving fewer queries than anticipated.
- *CCB customers:* The 15 December minutes reported that on 1 January 2016, letters would be dispatched to 140 000 Child Care Benefit customers providing formal advice that they will have entered the 63-day grace period. A second letter would follow 30 days out from the end of the 63-day grace period.

- *FTB customers:* The 15 December minutes reported that in March 2016, letters for over 10 year old catch-ups to take to vaccination providers would be sent to FTB customers and then to all cohort groups in May 2016.
- *Childcare providers:* The 15 December minutes noted that childcare providers have been included in a communication program with letters and posters dispatched on 15 December 2015 and that information on the DHS website was to be updated on 1 January 2016.
- *Information for CALD families:* The 14 January 2016 minutes noted that DHS Comms were working on translating short immunisation factsheets (366 words) into 22 languages to give culturally and linguistically diverse families background on immunisation. These were to be published in PDF format.
- *Website update:* In the 8 December minutes, DHS advised that 1 January 2016 was the earliest date possible to publish catch-up information on the DHS website.
- *Copies of the letters sent by DHS to families were provided to the research team:* These included a letter outlining the changes that were coming into effect and advising parents/guardians to ensure their child was up to date with their immunisations if they wished to continue accessing Family Tax Benefit⁶ and child care fee assistance payments. The letter also advised how parents/guardians could view their child's immunisation history.

Additional letters were prepared for parents whose child(ren)'s immunisation status was either:

- not assessed as up to date for their age
- unknown
- mismatched with information on file.

In each scenario, the letters clearly explained what actions the parent/guardian should take to ensure that their family assistance payments were not impacted. The options for each scenario varied, but included: logging on to the my.gov.au website to view their child/ren's immunisation history statement, calling the number provided and using the Express Plus Medicare mobile app. Letters were also prepared for parents of children aged 10 years or older whose access to child care fee assistance (Child Care Benefit and/or Child Care Rebate) and Family Tax Benefit Part A supplement could be affected due to their child's incomplete immunisation status. Again, clear instruction was provided outlining what actions parents should take, nevertheless, individuals with low literacy levels were likely to struggle.

4.6.4 Department of Education and Training

The Child Care Payments Policy Branch was part of DSS before moving to the DET in September 2015 through Machinery of Government changes. The Branch was responsible

for communicating with child care services (approximately 17 000) about the Measure. A series of communication materials about the Measure was developed by DSS and distributed via the Child Care Management System (CCMS) Helpdesk managed by DET. These comprised of newsletters outlining the changes and posters for display in childcare centres or for including in emails/newsletters to parents. Communications included:

- 14 December 2015; CCMS Newsletter Issue 79 outlining changes to immunisation requirements from 1 January 2016 and a *No Jab No Pay* A4 poster
- 18 December 2015, email; Clarification of NSW Conscientious Objection form not being a valid exemption from NJNP changes
- 22 December 2015, email; Clarification of NSW Conscientious Objection form not being a valid exemption from NJNP changes
- no date; Education Factsheet 20 – *No Jab No Pay*: Changes to immunisation requirements for CCB and CCR
- updated 1 July 2016; Factsheet 20 – What are the immunisation requirements for Child Care Benefit (CCB)?.

4.6.5 Stakeholder perspectives

Most government stakeholders agreed that the Measure's communications strategy, including letters to recipients and health providers, as well as general media, was effective in supporting implementation. At the same time, many were aware of issues that hampered communications, including: the tight timeframe for implementation resulting in delays in getting information to recipients and health professionals, the complexity of the message⁷, and confusion due to different requirements for different payments.

Positives of the communications strategy included consistency in delivering the same message across departments and utilising as many channels as possible to communicate the changes resulting in high levels of awareness.

Everyone worked very closely together across departments to make sure we were all delivering the same message, and using as many channels as possible and getting as many individuals as possible, across health professional to parents and guardians. (GS)

It got a lot of reach, and it was really strongly reported in the community and there was a high level of awareness with our customers and the community at large. 'No Jab No Pay' term as a term has gained a lot of currency and has resonated in the media and the community. There's no doubting the effectiveness of the awareness of the policy in the community. (GS)

Communication delays due to the short timeframe between passing the legislation and implementation caused confusion for some parents who needed to update their child's immunisation records. Additionally, immunisation providers who were directly impacted by the Measure were identified as being inadequately prepared and supported.

⁷ Communication from DSS indicates that all letters were reviewed by multiple stakeholders, including the relevant policy departments, to ensure that the language was clear and understandable.

A letter could've gone out earlier than it did to tell parents what to do if their child was incorrectly noted as not on the register. But this should've been anticipated as it was a known issue beforehand. (GS)

We wrote to every GP and provider in the country pre January 1. It was fairly effective. Some said they hadn't received enough notice. There was an influx into GPs of people needing to sort out complicated catch-ups and so on, so the feedback from health providers was that that was onerous and that no support was given for that. (GS)

Two government stakeholders had different perspectives on communications to recipients. One felt that the message was clear and that recipients had misinterpreted the letters, while the other felt that the complexity of the message caused confusion for recipients:

For parents, there was some misinterpretation of letters sent to them. There might've been a lot of frustration from those who may have been up to date but got a letter saying they weren't up to date. This was actually just Centrelink saying "We haven't established a link between ACIR and Centrelink" and didn't know if they were up to date rather than saying they weren't up to date, so people panicked, but they'd ask the doctor who would say "No, you are up to date". So the letters were clear on how this all worked, but people tend to not to read them properly. (GS)

Our only option for directly speaking to customers was through the DHS letters. The letters themselves are complex, so our communications tried to support the context and strategy of the change and give a call to action. It was a combination of a complex message to get across, and perhaps flaws in the messaging itself. There were clear calls to action to do something from the DHS letters. (GS)

This same stakeholder who felt that recipients may have misinterpreted government communications also felt that health providers may have run into trouble because they too had misinterpreted the requirements of the Measure that had been communicated to them:

For health providers, some of them just don't understand vaccination catch-up schedules and when children need certain doses. They need better education. Sometimes they have trouble interpreting the Australian Immunisation Handbook, which is what they're supposed to go by. (GS)

One government stakeholder acknowledged that the new requirements were not entirely clear for FTB recipients, noted that a media release gave the impression that the Measure affected FTB payments, not just the supplement.

The external stakeholders were generally less positive about communications surrounding the Measure. Most explained that they had not received adequate information about the Measure, or that there were gaps in the information provided to them by government. This, in turn, hindered their ability to explain the changes to recipients:

DHS and DSS⁸ sent letters to the parents about being cut off and we never saw those letters – we just get a flurry of parents ringing us and that's the first thing we know about it. (ES)

Some GPs even rang us about the letters because they just said 'you're overdue', but they, and we, didn't know what they were overdue for. So yeah, I don't know what the communications plan was but they sure didn't show us. We weren't part of the plan. (ES)

⁸ This is factually incorrect as no letters were sent by DSS.

There wasn't enough information. The main information we received was from the Chief Public Health Officer and other info that trickled through the state jurisdictions. Not sure if they were receiving adequate info but at our level we weren't. (ES)

Additionally, some external stakeholders said that the quality of information provided to parents was of poor quality, especially for recipients with low literacy levels:

The letters were very confusing – they had a lot of words but didn't say anything. We know that literacy is an issue for a lot of people. (ES)

It didn't work. They had four different letters to parents depending on their particular circumstances. They were so lengthy and so confusing, for people where English wasn't their first language or they had learning difficulties, the communication was extremely poor. I did hear that parents had said that they had been onto Centrelink and tried to get information from them and would have to wait in excess of 90 minutes on hold. (ES)

4.6.6 Summary

Communication strategies developed by DSS, DHS and DET supported implementation by outlining the key messages about how the Measure would affect eligibility or child care and family payments. Although not strictly part of the Measure, a communication plan from Health outlined communication activities with general practitioners, vaccination providers, and key stakeholders in state and territory health departments.

Most government stakeholders felt the Measure's communications strategy was effective in supporting implementation. However, they identified a number of issues that hampered communications including: the tight timeframe for implementation resulting in delays in getting information to recipients and health professionals, the complexity of the message and confusion due to different requirements for different payments. On the other hand, the government stakeholders also identified a number of positives of the communication strategy. These included consistency in delivering the same message across departments and utilising as many channels as possible to communicate changes, resulting in high levels of awareness. External stakeholders were generally less positive about communications. They felt that the information provided to them and to recipients was inadequate, which hindered their ability to explain the changes to parents/guardians.

4.7 Management information

The PIR also looked at how the policy and system design impacted upon the data available to date regarding rates of immunisation and eligibility for family assistance (both Family Tax Benefit Part A supplement and child care payments).

The document review highlighted concerns about the quality of the data in the ACIR, ongoing capacity to monitor conscientious objectors in the future, issues concerning data linkages between the Centrelink system and the ACIR, and the management information that was produced to monitor the implementation and impact of the Measure. Findings from the stakeholder consultation primarily concerned the issues of updating the ACIR and the data quality.

4.7.1 Australian Childhood Immunisation Register (ACIR)

Prior to the implementation of the Measure, several submissions to the Senate Community Affairs Legislation Committee inquiry highlighted concerns about the data quality in the ACIR. These included concerns about:

- the accuracy of the data in the ACIR;
 - Professor Leask's research suggested that possibly between 18 to 50 per cent of records might incorrectly show that children were not up to date with immunisation (Senate Community Affairs Legislation Committee, 2015: 24; Leask 2015, submission to inquiry)
 - a submission from NSW Health noted that inaccurate data may be due to data transfer issues and that the vaccination status of children over 7 years was not previously available in the ACIR
- an inability to monitor conscientious objection if the Bill was passed.

Data quality

In the light of the concerns about data quality, in the Senate inquiry the Greens proposed delaying the implementation of the Measure until July 2018 so that concerns could be addressed. It is noted in the minutes from the 23 November 2015 meeting of the Interdepartmental Committee (IDC) that delaying implementation until 2018 was not possible because 'the supplements are due to be phased out by this date'. The Committee also reported that both Health and DHS were taking action to improve data quality.

Stakeholders noted that implementing the Measure necessitated a significant amount of additional information being entered into the ACIR, particularly for those children from 10 to 20 years of age who had previously not been included. Linkages between the Centrelink payment database and the ACIR also needed to be updated with the influx of new information and requirements of the Measure.

Several government and external stakeholders commented that the data quality within the ACIR had improved, but that it had come at the cost of short-term issues, including delays uploading data, data cleaning and parental angst:

It's created a lot of manual intervention being required that was never required before, for example cleaning up duplicate data or rubbish data or incorrect reporting of dose numbers. And because ages have extended up to 20 [years old] there's a lot more work involved. (GS)

The ACIR was absolutely overwhelmed ... for months a lot of records were pending, which means the child isn't considered up to date. There was a lot of manual intervention required, which is a huge demand for this scale of program. There was no real opportunity to work through those issues before the Measure was implemented. (GS)

So a lot of the data was incorrect in the first place due to human error and software errors. So [the Measure] was a success in that it identified where the data was incorrect and needed fixing, but that shouldn't have been at the expense of parents' anguish. (GS)

Other government stakeholders referred to the additional work to establish linkages between DHS and the ACIR that were required for the Measure. It was acknowledged that

the process was not without its challenges but that the linkages were ultimately successfully established:

There has been ongoing work with Centrelink to establish those checks and balances, which were successful in the end, but not really 'smooth'. We're constantly working and looking to see if there are any issues with the data. (GS)

To expand the ACIR, which was a requirement of the policy, we then therefore had to re-examine the way that we linked records and ensure that we had as robust a process as we could develop, within the limitations of the system that we have to conduct those linkings. (GS)

Two government stakeholders theorised as to why there were so many issues with the ACIR and why there may have been so much missing immunisation data. The first suggested that perhaps many doctors had simply not uploaded children's immunisation histories to the ACIR. Alternative explanations included operator errors at DHS or issues with the ACIR. The second stakeholder suggested that many immunisation providers might not be adequately skilled at entering the data into the register. This stakeholder recalled how, in the past, there were ACIR liaison officers in every state and territory who would liaise with immunisation providers about uploading information to the ACIR:

[Their] remit was to help with data quality and cleaning, and educate providers on how to use the system. Their role was ceased about 3 or 4 years ago. They were very useful to field questions, look at problems. (GS)

One external stakeholder argued that the ACIR should have been subject to a complete overhaul prior to the implementation of the Measure rather than having efforts made to simply update it, as successful as these efforts may have been in the short-term:

I think the policy has driven attempts to improve the data and the register. At its heart the register is very poor. It was built in the 1990s. It takes me five minutes to log in. It's an ancient piece of infrastructure that should have had a complete revamp before undertaking a measure like this. (ES)

Conscientious objectors

A number of submissions to the Senate Inquiry expressed concern that conscientious objection would no longer be recorded in the ACIR. Submissions recommended either the retention of objection provisions in the data set or that the government should attempt to survey the rate of conscientious objection annually (Leask submission).

4.7.2 Implementation

Data linkage – ACIR/AIR & ISIS (managed by DHS)

With receipt of child care and family payments being conditional upon up to date immunisation status, data linkages between a child's ACIR/AIR records and the Centrelink program's Income Security Integrated System (ISIS) records are critical. The Extending Immunisation Requirements Detailed Requirements Document (EIR DRD) outlines the changes made to ACIR/ISIS system to facilitate data exchange, enable assessment of entitlements, orchestrate mail-outs, enable recipients to provide information, and provide assistance to staff. DHS EIR staff training documents note that data linkage is established

via the child's Medicare number and offer advice on how a link can be established if the child does not meet the residence requirements for Medicare.

Vaccination objection

The term 'vaccination objection' was used to replace 'conscientious objection' in the ISIS data. Before March 2013, vaccination objections were recorded at Centrelink on the ISIS mainframe (EDW), the ACIR or on both. The EIR DRD 15.7 notes that up to 100 000 conscientious objections were recorded on the ACIR for children up to 20 years of age. This historical vaccination objection status still exists in the EDW data.

Monitoring implementation

The EIR DRD documents the management information data requests by Departments for the purpose of monitoring the implementation and impact of the Measure. These include a wide range of data requests from ACIR and DHS data system, including ACIR data on:

- the number of vaccination objections recorded on the ACIR system
- the number of children for whom an objection is registered but then the child met full vaccination status
- the number of legacy vaccination exemptions (at 31 December 2015).

Regular reports from Centrelink (DHS) data were to be provided to, DSS, DET and Health, and relevant Ministers including:

- a count of Immunised Children (total)
- the number of children with immunisation exemptions
- the number of immunisation overrides
- the number of children who are not linked to ACIR
- the Immunisation Status (child)
- the Immunisation Status Reason (child) (e.g. override, exemption, fully immunised, etc.)
- the Immunisation Link Status (child)
- the Immunisation Link Reason (child)
- the Immunisation Requirement – (milestone at which child is currently active)
- a CCB/CCR Indicator – whether a recipient is current CCB Only, CCB/CCR, CCR Only or claim pending
- FTB-A Immunisation Supplement Withheld – Child.

A range of reports (short-term, interim, one-off, and ongoing) were required for the child care and family payments that were linked to immunisation status with the introduction of the Measure. The purpose of the reporting was to determine whether the Measure had resulted in any changes to the number of families receiving payments.

Additional reports that were described in the EIR DRD included a report on the effectiveness of the data integrity exercise each time it was conducted, and a report on a quarterly basis for the National Centre for Immunisation Research and Surveillance (NCIRS) that includes all children on the register and their associated valid vaccines.

4.7.3 Summary

The introduction of the Measure has led to significant changes in the data collected through ACIR/AIR on rates of immunisation. The review of documents and stakeholder consultation suggests that there were many challenges in this process, some of which were due to the short lead time to implement the Measure once legislation was passed. The stakeholder perspectives suggest that the changes were eventually successfully implemented, which may result in higher quality data on rates of immunisation for Australian children and the extension of this data to children up to age of 20 years. One of the tasks of the impact evaluation should be to examine the quality of the data on immunisation rates in the ACIR/AIR. While the DHS data contains historical information recorded on registered vaccine objections, the capacity to monitor ongoing levels of vaccine objection in the national community has been reduced. Options to continue to monitor conscientious objection, as part of a broader inquiry into community understanding and confidence in vaccines, should be examined as suggested by submissions to the Senate Inquiry.

5 Discussion

The Post Implementation Review (PIR) of the No Jab, No Pay 2015–16 Budget Measure was undertaken to assess implementation successes and challenges, and also to inform the development of the impact evaluation Framework. This framework is presented in the following section.

Overall the implementation of the Measure went relatively smoothly from a policy perspective. Governance arrangements, risk mitigation strategies and communication strategies were put into place, and the Measure was implemented in a flexible manner that allowed for challenges to be addressed as they arose. Government departments worked well together and the communication between departments was effective in addressing overlaps and gaps. There were additional benefits to the implementation of the Measure, in particular improvements in the accuracy and completeness of the AIR.

A key implementation challenge identified by all stakeholders related to the short timeframe for implementing the Measure. With the announcement of the policy in April 2015, the passing of the legislation in November and implementation on 1 January 2016, those responsible for implementing the Measure and communicating the changes to affected parents faced significant challenges. Yet, despite the tight timeframe, it appears that implementation went relatively smoothly from the policy implementation side. Two key implementation challenges related to the need to extend the payments beyond the initial grace period for existing recipients due to delays in uploading immunisation data to the AIR. A second challenge was the need to amend the continuous/rolling catch-up anomaly to ensure that parents who were not committed to immunising their child were not placed on a six-month catch-up repeatedly. A key system success relates to system responsiveness when issues were identified, with both of these issues being addressed promptly, thereby limiting negative impacts for recipients.

Despite the effective implementation by the Australian Government, there were considerable difficulties for state and territory officials as well as vaccination providers. Several external stakeholders felt that the policy was designed without consideration of the impact the Measure would have on the workloads of general practitioners, immunisation providers and other allied health professionals at the state level. These challenges were compounded by:

- the short timescales for implementation
- the lack of additional resources provided for states and vaccine providers, other than the \$6 incentive
- inaccuracies in the ACIR and backlogs in getting data uploaded onto the database.

Implementation of the Measure also required effective communication strategies to ensure that families were made aware of the changes. Many external stakeholders felt that communication about the Measure was poor and confusing for affected families, referring to parents' anxiety, frustration and confusion when advised that their child's immunisation records were not up to date.

Communications about the Measure provided mixed messages about the focus of the Measure on parents who objected to vaccination. The DSS communication strategy (EIRCS) noted that the parents of children not fully immunised were either vaccine objectors, or 'families who are behind in their immunisations because they face social, economic or geographic barriers to access' (p. 6). The strategy noted that different communication strategies were required for each category of parent. One of the key messages to vaccine objectors was that they had a right to vaccinate or not, but that if they chose not to, they would lose eligibility for certain family assistance payments.

At the same time, the EIRCS outlined a five-point overarching narrative focusing on: the health of Australian children as a government priority, immunisation as the safest and most effective way to protect against vaccine-preventable diseases and the 'concerning number of children [who] are not vaccinated because their parents are vaccine objectors' (p. 8). Despite the fact that available data suggested that vaccination objectors constituted under a quarter of the incompletely immunised, media around the Measure tended to focus on this group of parents. This focus on vaccination objectors created the impression that they were the target of the policy, with a number of stakeholders questioning whether this focus was misguided. This impression is confirmed by the extract below from a 2UE interview with Minister Porter in November 2015 when the Bill was passed:

What we did was we took the best available scientific advice and evidence. Scientists talk about a level of herd immunity which is that point that you require to effectively control the transmission of an infection amongst a population and that varies from disease to disease, but those diseases that I've just mentioned, that herd immunity level is 95 per cent, and we in Australia were dropping below that level of group immunity because of the very large number of what were known as conscientious objectors. And we felt, as a government, that we needed to rectify that situation. (Porter, 2015)

Despite this statement of the primary purpose of the Measure, DSS reported to the Senate inquiry that it did not expect that the Measure would significantly alter rates of immunisation among conscientious objector families. DSS' assumptions were that the rate of children with a recorded vaccine objection in the FTB Part A population would drop from just 1.8 to 1.5 per cent as a result of the Measure. DSS reported that it expected that the majority of families who immunised their children as a result of the Measure were expected to do so as a result of eligibility being checked each year until age 20. Thus, one aspect of the modelling undertaken by the Department on the reduction of VOs was more conservative than the policy intention.

As noted above, the intended goal of the policy was not to provide budget savings, but to protect public health by increasing immunisation rates (Abbott, 2015). Although budget savings was not the goal of the policy, failure to meet immunisation requirements was expected to result in significant cost-savings for government. DSS figures provided in response to a Senate Inquiry question on notice showed that 563 500 children were expected to fail the immunisation requirement over 4 years (2015/16 to 2018/19). The majority of these children (65–70 per cent) were aged 10 years or over. DSS expected that in 2016/17 around 10 000 families would lose an average of \$7 000 in child care payments and that 75 000 families would lose the FTB Part A supplement, which is currently \$726.35 (Report of Senate Community Affairs Legislation Committee, 2015, p. 8).

An issue not identified in the document review or by stakeholders was whether some recipients facing practical and logistical barriers to updating their immunisations (rather than vaccine objection) would lose payments as a result the Measure. This issue should be explored in the impact evaluation.

Overall, the majority of the challenges identified by the PIR can be accounted for as 'teething problems' which are to some extent inevitable in the implementation of any complex measure, particularly when this is required in a short time frame with little opportunity for preparation. It is anticipated that most of these challenges will be resolved and will not affect implementation in the long-term. Perhaps the only long-term unintended consequence of the Measure has been the loss of ability to track conscientious objectors, and henceforth the government will need to rely on proxy measures to assess the extent of conscientious objection in the community.

One of the biggest challenges for this Measure relates to the messaging around its implementation. Three broad messages were provided in communications around No Jab, No Pay:

- a change to the behaviour of conscientious objectors
- encouragement to those who are hesitant or face logistical problems to fully vaccinate their children
- a cost-saving measure.

It is inevitable that complex policy initiatives will have multiple objectives, and of course government is not in control of how the media reports policy developments. Nevertheless, these inconsistencies in the messaging around this Measure have resulted in much cynicism amongst some key stakeholders and have not been helpful in the early implementation. These three messages are all based on sanctions and self-interest rather than providing positive messages to the population about the need for vaccination, the fact that it is safe for the vast majority of children, and the contribution families can make by ensuring that their children are fully vaccinated.

Although the early implementation has been mostly successfully accomplished, it is not yet possible to assess whether the Measure itself has been successful. There are early indications that vaccination rates have improved, but this could be accounted for in a number of different ways, including improvements in data collection and recording. The evaluation will need to assess the degree to which the Measure has not only improved administrative processes, but has led to actual changes in population behaviour, and whether these have been sustained over time.

6 Impact Evaluation Framework

Drawing on insights gained through conducting the PIR, this section of the report presents a range of options and strategies for the impact evaluation of the No Jab, No Pay 2015 Budget Measure. Before outlining the proposed impact evaluation framework, we present the No Jab, No Pay Theory of Change and policy logic model.

6.1 No Jab, No Pay theory of change

The broad purpose of a ‘theory of change’ is to articulate and map how a program, intervention or policy is expected to lead to change or, in policy terms, to achieve the desired policy outcome. In addition to including the program or policy that is expected to produce change, the theory of change also looks at other environmental and contextual factors that might contribute to the desired change.

The aim of the Measure is to increase immunisation rates by linking eligibility for child care and family payments to immunisation status. However, a range of additional factors could also lead to higher rates of immunisation. This makes the impact of the Measure on increasing immunisation rates difficult to separate from the contributory impact of other factors. In addition the Measure itself contains a number of components, and was accompanied by associated measures (e.g. incentive payments to vaccination providers) as part of a package of reforms. The evaluation will, as far as possible, identify the effectiveness of different components of the Measure and its associated changes.

The Measure strengthened the immunisation requirements that apply to Australian Government child care payments and the FTB Part A supplement. The three policy mechanisms utilised were: the removal of conscientious objection (now called vaccination objection) as a valid exemption category, the extension of eligibility monitoring up to 20 years, and the removal of the initial grace period for new recipients to get up to date with immunisations.

The main component of the theory of change asserts that the prospect of losing eligibility for child care and family payments would prompt parents to ensure that their children’s immunisations were up to date. The desired outcomes were:

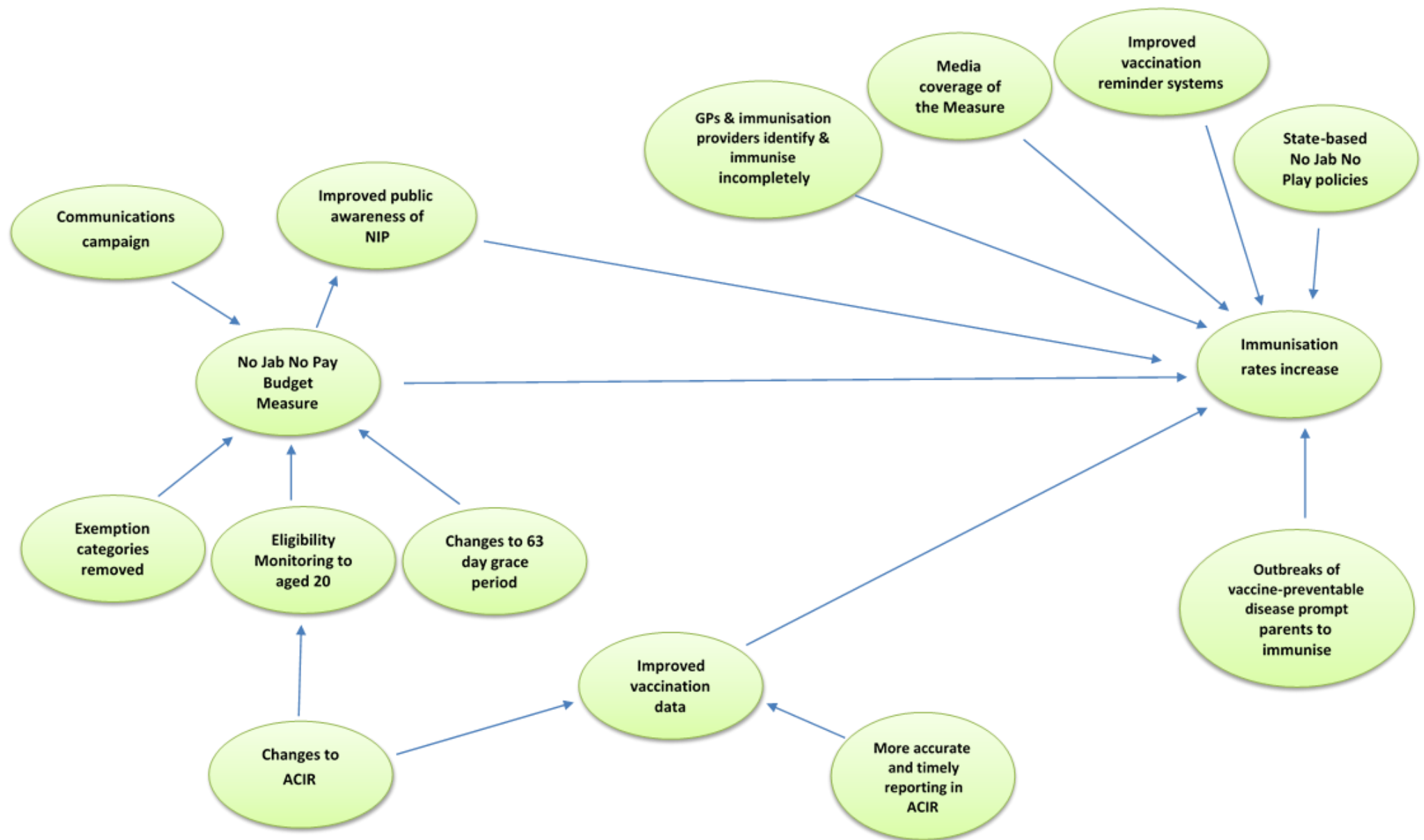
- that parents of children who were assessed as not fully immunised might get their immunisations up to date
- that parents who had a registered ‘conscientious objection’ to vaccination might get their children immunised.

If these outcomes are achieved, the immunisation rate will increase. If these outcomes are not achieved, the parents of children assessed as not fully immunised will lose eligibility for payments, resulting in savings for government.

In addition to the Measure, Figure 1 No Jab, No Pay theory of change below identifies a range of additional factors that might also have an impact on increasing immunisation rates. These include:

- the general practitioner/vaccination provider incentive payment scheme (it has not been possible to access any data from Health concerning uptake of the scheme)
- more accurate and timely recording of immunisation data in the ACIR
- health-funded activities to improve the community's understanding and awareness of the National Immunisation Program (NIP)
- improved vaccination reminder systems (e.g. The Victorian Department of Health's *VaxOnTime* app)
- state-based *No Jab No Play* policies
- a communications campaign
- media coverage of the Measure.

Figure 1 *No Jab No Pay* Theory of change



6.2 No Jab No Pay Policy logic

Articulating the No Jab, No Pay (NJNP) policy logic requires consideration of policy design ('sticks' and 'carrots'), how the policy will be implemented (system, data, governance, communications etc.) and the intended impact.

The logic of the NJNP policy design involves strengthening conditionality through three mechanisms:

- eliminating exemptions for conscientious/vaccination objection
- making changes to eligibility monitoring (up to 20 years)
- removing the initial grace period for new recipients.

Although not part of the Measure, a range of complementary measures were also undertaken by Health, including: incentivising general practitioners and vaccination providers to identify and immunise children (under 7 years of age) who were more than two months overdue for their vaccinations, improving public vaccination records and reminder systems, and making efforts to increase public awareness of the benefits of vaccinations.

Implementation required a range of inputs, including funding, governance structures, communications and data management systems. The ultimate aim of the Measure was to increase immunisation rates and sustain them at herd immunity level (95 per cent or better). The NJNP policy logic model below (Figure 2) outlines the inputs, activities, outputs, outcomes and impacts of the Measure. It is important to note that the impact evaluation will aim to establish the effect of the Measure on the outcomes listed in Figure 2, but is unlikely to be able to do so with respect to the listed impacts.

6.2.1 Unintended consequences

While policies may be designed to target specific populations, there is always the potential for unintended consequences. Concerns were raised in the Senate Inquiry about the potential impact of the Measure on children of parents who may face barriers to immunisation, or whose records are incomplete for a range of reasons. The impact of the Measure and loss of eligibility for child care payments and FTB-A supplement could result in:

- increased inequality in incomes if families with lower levels of incomes are those facing practical and logistical barriers and do not commence catch-up schedules
- consequences for family and child wellbeing due to either:
 - not being up to date with immunisation; or
 - records being inaccurate
- parents withdrawing their children from child care, with resulting education and social disadvantages

- parents withdrawing from the labour force due to lack of childcare options, resulting in reduced family income
- less vaccination provider engagement/communication with vaccination objectors
- longer term impact on public confidence in public health because of negative messaging rather than the promotion of the positive contribution made by vaccination
- increase in rates of medical exemptions as a result of the category of conscientious objection no longer being available.

A key objective of any impact evaluation would be to examine the extent to which the introduction of the Measure has had unintended impacts on different sectors of the population.

Figure 2: No Jab, No Pay Policy logic model

Inputs	Activities	Outputs	Outcomes	Impacts
Funding/resourcing: <ul style="list-style-type: none"> • DSS • Health • DHS • DET 	<ul style="list-style-type: none"> • Strategies to enable implementation of Measure & interdepartmental collaboration are adequately funded 	<ul style="list-style-type: none"> • Development of parent/vaccination provider/childcare provider information resources • Expansion of ACIR • Incentive payments for vaccination providers (Health complementary measure) • Health providers (general practitioners & immun. providers) – follow up & immunise children who are not fully immunised 	<ul style="list-style-type: none"> • Increased immunisation rates (N.B. baseline issues due to imperfect ACIR data) • Increase in incompletely immunised children engaging in catch-up schedule • Decline in vaccine objectors • Records of recently arrived children updated in ACIR • Savings or revenue neutral? • Improved VP/parent communication/engagement leading to greater willingness to immunise 	<ul style="list-style-type: none"> • Reduced incidence of disease • Healthier children
Project plan (DSS)	<ul style="list-style-type: none"> • Detailed implementation plan developed • Stakeholders engaged & consulted 	Availability of sufficient vaccines assured Childcare providers inform parents about potential policy impact	<ul style="list-style-type: none"> • Vaccination providers updating AIR in timely manner • Greater knowledge among vaccination providers about immunisations • Greater understanding among childcare providers about vaccination requirements 	Improved monitoring of population health

Inputs	Activities	Outputs	Outcomes	Impacts
Communication strategy <ul style="list-style-type: none"> • DSS • DHS • Health • DET 	Communication strategies developed: <ul style="list-style-type: none"> • Overall & within each Dept. • Communications working group meetings/actions • Between the Australian Government & states • Between states and vaccination providers 	<ul style="list-style-type: none"> • Letters to parents • Info to immunisation providers • Info to childcare providers • Media activity 	<ul style="list-style-type: none"> • Greater awareness among public & immunisation providers about policy change with respect to improved health (incentive payment for vaccination providers – Health) and ‘strengthening eligibility requirements’ for family payments (DHS) 	<ul style="list-style-type: none"> • Improved vaccine confidence among parents
Governance	<ul style="list-style-type: none"> • DSS lead agency • Working group and Interdepartmental Committees established • Internal communication pathways articulated • Risks & issues documented • Decision-making mechanisms established 	<ul style="list-style-type: none"> • Reports • Minutes • Actions 	<ul style="list-style-type: none"> • Clear delineation of responsibility • Greater collaboration between stakeholders • Improved ability to pre-empt issues & risks 	<ul style="list-style-type: none"> • Long-term sustainability of Measure
Data linkage/management strategy	<ul style="list-style-type: none"> • DHS – EDW, ISIS • Health – ACIR • DET – Child Care Management System • Software – immunisation providers • Management information 	<ul style="list-style-type: none"> • Data records/reports 	<ul style="list-style-type: none"> • Accurate, timely lifetime data 	<ul style="list-style-type: none"> • Improved public health monitoring

6.3 Data Scoping

The data scoping component aimed to develop options on how departmental datasets might be utilised in the impact evaluation. The objective of the data analysis in the impact evaluation would be to review changes in immunisation rates for the target populations and also to examine whether there have been any unintended consequences. With regard to the associated measures, the impact evaluation should also assess data, if available, on:

- the role and take-up of Health incentive payments
- performance benchmarks for states and territories
- the impact of the community awareness campaign.

6.3.1 Changes in immunisation rates for target populations

As outlined above in this report, the target populations of the Measure are parents and carers of children who are not fully immunised. This group comprises children with parents with registered and unregistered vaccine objections and those who are not fully immunised for other practical and logistical reasons that may relate to socio-economic or other disadvantages.

Data for the impact evaluation would aim to analyse the change in immunisation rates for the following population targets:

- children who currently have a registered vaccination objection by
 - income levels of parents
 - socio-economic status of area (SA3)
 - vaccination status (partial, none)
- children not up to date/meeting immunisation requirements and with no registered vaccination objection, including those:
 - whose immunisations are up to date but there are recording errors in ACIR
 - whose parents are silent unregistered objectors
 - whose parents have not immunised their children due to practical and logistical reasons:
 - with disability
 - from low income families
 - in lone parent families
 - large families (3 or more children)
 - from low SES areas
 - from more remote areas
 - are temporary migrants
 - born overseas

- older children who had not previously been immunised (aged 7–20 years) to identify changes in immunisation rates of the older child population.

As well as looking at changes in immunisation rates between two points in time (or pre and post the implementation of the Measure), the analysis would also aim to track the trajectory in the rates of change, that is, whether there is an initial increase in immunisation rates, which is sustained over a medium and longer period.

6.3.2 Assessing the impact of unintended consequences

As noted above, the document review and stakeholder consultation highlighted specific groups of children that should be a focus of this analysis of potential unintended consequences. The analysis could therefore use Departmental data associated with the Measure to map loss of payments and subsequent changes in family incomes, childcare attendance, and parental employment status for families with children:

- with disability
- from low income families
- in lone parent families
- in large families (3 or more children)
- from low SES areas
- from more remote areas
- of temporary migrants
- of refugees or asylum seekers
- born overseas
- from Aboriginal and Torres Strait Islander communities;
- who hold a health care card
- whose parents hold a health care card, pensioner concession card, or a Veteran's Affairs Gold or White card
- that are known to child protection, are living in emergency or crisis accommodation, or are of no fixed address due to family violence or homelessness.

Departmental data could be used to assess any increase in rates of medical exemptions that may be attributable to the category of conscientious objection no longer being available.

In addition, the impact evaluation analysis could explore other data sources, or develop a dedicated survey to assess the impact of the Measure on:

- vaccine provider engagement/communication with vaccination objectors
- public confidence in vaccines.

Details of departmental data and potential options for analysis are outlined below.

6.3.3 Data sources and data analysis options

On the advice of the Department of Social Services the following data sources were reviewed and information sought from the data custodians as to data items, data quality, and processes for data access. The data sources are outlined in Table 4.

Australian Childhood Immunisation Register (ACIR)/Australian Immunisation Register (AIR)

The ACIR became the AIR on 30 September 2016. The ACIR/AIR data custodian is Health. The current population in this database includes all children aged 0–20 years with a Medicare record, and all children who have had immunisation records uploaded by immunisation providers.

The ACIR/AIR data also includes information on types of exemptions for immunisations, including data on registered conscientious objectors. Data on the number of children with a conscientious objection registered between 1999 and 2015 is publically available.

A wide range of publically available reports exist on data from the ACIR including:

- annual historical data on immunisation rates for states and Australia for 3 cohorts (12–<15 months, 24–<27 months, 60–<63 months) from 1999–2015 and current data for these cohorts based on year to June 2016
- annual historical data for Aboriginal and Torres Strait Islander children on immunisation rates for states and Australia for 3 cohorts (12–<15 months, 24–<27 months, 60–<63 months) from (2003–2015) and current data based on year to June 2016
- quarterly immunisation data for SA3s (from March 2015 to June 2016)
- Primary Health Network Immunisation Coverage Reports
- Annual National vaccine objection (conscientious objection) data from 1999–2015
- quarterly state and territory data vaccine objection (conscientious objection) data from 2012–2015
- National Health Priority Areas reports on national immunisation rates 2012–13 and 2014–15
- National Centre for Immunisation Research & Surveillance (NCIRS) reports on Annual immunisation coverage reports, Australia (2007–2014)
- NCIRS reports on Annual immunisation coverage reports, Australia (2009–2015)
- Public Health Information Development Unit (PHIDU) – Social Health Atlas – children fully immunised at 1, 2 and 5 years (2015)
- PHIDU – Social Health Atlas – Aboriginal and Torres Strait Islander children fully immunised at 1, 2 and 5 years (2015)

Table 4 Data sources for impact evaluation

Data base	Custodian	Data items	Data quality	Data access & issues
<i>ACIR/AIR</i>	Health / DHS	Immunisation records Exemption categories, including registered conscientious objectors and medical exemptions Socio-demographic variables as held in Medicare data base Geographical data	Concerns about data quality at 31 December 2015 and effect of requirement to expand database. Quality at time of impact evaluation is likely to be higher	Publically available data Additional data requests to be sent to Health No data dictionary as yet
<i>Child care data</i>	DET	Child care attendance Geographical data	Quality of data dependent on child care provider records being uploaded?	Privacy issues No formal process for data requests
<i>Day one implementation reports</i> <i>Enterprise data Warehouse (EDW) linked with AIR</i>	DHS/Health	CCB and FTB A recipients: <ul style="list-style-type: none"> • Vaccine objectors (based on historical data prior to 1 January 2016) • Customers with a grace period • Immunisation records (current /historical?) • Payment data for CCB and FTB A supplement • Reasons for payment withheld 	Quality defined as high due to requirements for accuracy of Centrelink payment records	Ethics and privacy considerations to be negotiated with DSS and DHS No formal process to request data
<i>EDW</i>	DHS	Immunisation status data Socio-demographic data Geographic data	As above	As above

In addition, there have been a number of academic studies that have conducted detailed analysis of ACIR data, including immunisation rates over time (Beard et al., 2016).

The advantages of the AIR dataset are that it contains the immunisation records of all children registered in Medicare or having immunisation records and therefore it is the broadest population of children. It also contains the data on the different exemption categories, including conscientious objection up until 1 January 2016. The disadvantage of the AIR data is that it does not have historical records of changes in immunisation in individuals, as it is point in time data which is updated continuously.

The historical aggregate data for immunisation rates could provide baseline data for assessing the impact of the Measure (changes in immunisation rates). The Health data could be used in an impact evaluation to:

- analyse and map aggregate changes in immunisation rates across geographical areas
- link the geographical information to ARIA data to identify changes in immunisation rates by remoteness
- link the geographical information to SEIFA data to identify the changes in immunisation rates by socio-demographic status of areas
- identify rates of exemptions, including rates of medical exemptions before and after the Measure, and rates of Secretary's exemptions after the Measure.

Child care data

The data custodian for this data is the DET. Child care service providers provide information about child care attendance to DET. This data is shared on a weekly basis with DHS and is merged with data in the EDW to determine eligibility for child care payments. This data could be used in an impact evaluation to map overall and geographical patterns in changes in child care attendance before and after the Measure. However, it would not be possible to determine if the changes in child care attendance were an outcome of the Measure or due to potential confounding factors. This may be addressed through qualitative interviews. For example, it may be possible to undertake case studies in locations where child care attendance has increased and decreased or where payments have ceased.

Day one implementation reports

DSS advised that the day one implementation reports have been used to monitor take-up rates and validate issues that might have been included in the risk register. They were produced by DHS as a result of merging data from ACIR/AIR and EDW.

Based on information provided by the DSS, these reports included the following data items:

- All CCB customers and Vaccine Objectors (VO) only records
 - Count of customers and children who meet immunisation requirements by payment types
 - At least one child meets immunisation requirements
 - All children are fully immunised
 - Children have a next immunisation date
 - Exemption types (natural immunity, medical, vaccine shortage)
 - Centrelink override
 - Count of Fee Reduction CCB Customers and Children with a Grace Period applied by payment types
 - Count of Fee Reduction CCB Customers and Children with a Grace Period applied who now meet immunisation requirements
- CCB reduced fee (CCF, CCI, LSC) claims processed
 - Granted
 - Rejected
 - Assessed awaiting ACIR link
 - Paid/not paid/Total, pending immunisation or other reason
- FTB-A Immunisation Status Assessed (milestone birthday in the past)
 - All children and vaccine objectors (current and expected?)
 - Full Payment – DHS FTB Immunisation status
 - Full Payment – ACIR FTB Immunisation Status
 - No payment
 - Link status – yes, not awaiting, mismatch (number of categories)
- Count of CCB Ineligible customers and children due to immunisation non-compliance (all, All VO)
 - CCB Types (CCF LSC, CCF Reduced Fee, CCI, CCR LSC) by customers that had at least one child ineligible
 - CCB Types (CCF LSC, CCF Reduced Fee, CCI, CCR LSC) by count of all children child ineligible
- Count of Immunisation catch-up letters issued
 - Manually issued and auto issued, count of children not immunisation compliant.
- Reviews and appeals data.

The advantage of these reports is that they provide aggregate data for recipients to assess the impact of the Measure after the baseline date. These reports are also produced on a regular basis. The disadvantage of these reports is that they do not disaggregate data by socio-demographic characteristics of interest or geographic location in assessing the impact of the Measure.

This data could be used in the impact evaluation to:

- analyse aggregate changes in immunisation rates for CCB and FTB customers and children by whether they were a vaccine objector or not.

- analyse the number of CCB recipients who have had payments rejected after the implementation of the Measure:
 - CCB recipients who had a recorded vaccine objection
 - CCB recipients who did not have a recorded vaccine objection
- Analyse the number of FTB-A customers who have had part or full supplements withheld for the 2015–16 tax year, post reconciliation:
 - FTB-A customers who had a recorded vaccine objection
 - FTB-A customers who did not have a recorded vaccine objection
- Analyse the number of CCB and FTB-A customers who have changed their status in relating to meeting immunisation requirements (recorded vaccine objectors and others)
- Analyse the number and outcomes of review and appeals
- Map longitudinal trajectories in key changes in immunisation rates and impacts on payments for CCB and FTB-A customers by considering changes in these rates over time prior and after the implementation of the Measure.

DHS Enterprise Data Warehouse

The EDW contains information about child care and FTB payment recipients necessary to determine payment eligibility. Data items in this data source include:

- socio-demographic variables for children and parents
- child care attendance and eligibility for payment
- geographical residential data
- data on whether immunisation requirements have been met.

The advantages of the DHS data are the more detailed socio-demographic data that can be linked with child care attendance and payment data, FTB-A data and immunisation requirement status data. This data is also stored historically for individuals over time so it is possible to track changes in individual attributes over time.

If this data is linked with the AIR data, as has been done for the Day One Implementation reports, a number of analyses would be possible to examine in more detail the impact on target populations and unintended consequences. The disadvantage of this data analysis is that it is likely to be time consuming and therefore more costly to merge and extract the data from both AIR and DHS.

The merged AIR/DHS data could be used in the impact evaluation to:

- extend all day one implementation reports to include a breakdown by key socio-demographic variables such as:
 - parent's income levels
 - parent income support payment type
 - family composition
 - family size

- migrant/refugee status of parents
- child's disability status
- Aboriginal and Torres Strait Islander status
- any record of family violence (if available)
- child protection status (if available)
- housing status
- extend all day one implementation reports to include a breakdown by key geographical variables linking postcode information with:
 - SEIFA indicators to identify impacts on families from low SES areas
 - ARIA indicators to identify impacts on families from more remote areas
- Map longitudinal trajectories in key changes in immunisation rates and impacts on payments by socio-demographic and geographical characteristics by analysing changes in rates and loss of payments over time
- Analyse the following changes for CCB and FTB-A payment recipients who have had a payment rejected/withheld due to not meeting immunisation requirements by vaccine objector status:
 - child care attendance
 - employment status of parents
 - income levels.

6.4 No Jab, No Pay Impact Evaluation Framework

The aim of the Measure's impact evaluation will be to measure the impact the policy has had on immunisation rates at the population level and for particular sectors of the population, and ultimately to examine changes in the prevalence of vaccine-preventable diseases. Below we outline options and strategies for impact-related data collection and analysis. The options and strategies outlined below include some suggestions that were raised during the stakeholder consultations.

Two key challenges for any impact evaluation relate to isolating the impact of the Measure on immunisation rates and trying to establish a baseline measure for determining impact. As noted in the theory of change model above (Figure 2), a range of additional contextual factors may have had an impact on the immunisation rates. These include state-based policies, complementary measures introduced by Health and media coverage of vaccination. As such, isolating the impact of the Measure on immunisation rates will be a challenge. It may be possible to examine the impact of outside factors through the qualitative research, which should complement the administrative data analysis.

An additional challenge relates to the available data in the AIR. The document review and stakeholder consultation highlighted concerns about the accuracy of the data in ACIR, now the AIR. It was noted that although some children may have been immunised, their immunisation records were not up to date. The introduction of the Measure resulted in significant effort invested in updating immunisation records in

the database. If there has been an increase in immunisation rates, it is likely that some of the recorded rate increase will be due to improvements in the complete and accurate recording of immunisation data rather than actual increases in the vaccination rate in the population. Therefore it will be important to separate this increase from actual increases in vaccination as a response to the Measure. An additional challenge is determining the baseline measure for determining an improvement in the immunisation rate. This may have to be established through DHS data rather than the ACIR itself.

6.4.1 Questions:

We begin by outlining a range of questions that could be addressed in any impact evaluation. These questions encompass the achievement of the Measure's intended goals, the extent to which changes can be attributed to the Measure, unintended impacts, cost-effectiveness and the sustainability of the Measure. The next sections outline some suggested methods to address these questions and we flag a number of factors that will influence the design of the evaluation.

1. Did the Measure achieve its intended goal of increasing immunisation rates and achieving herd immunity in the Australian population?

- a. Has there been an increase in immunisation rates since the Measure?
- b. How many previously incompletely immunised children have engaged in a catch-up schedule?
- c. How many children of recorded vaccine objectors have become immunised since the implementation of the Measure?
- d. Have any increases in immunisation rates been sustained over time?
- e. How effective were the communication strategies in raising parents'/vaccination providers'/childcare providers' awareness of the policy change?

2. To what extent can changes in immunisation rates be attributed to the Measure?

- a. To what extent are recorded changes due to improvements in data collection and recording practices, as opposed to real increases in immunisation rates?
- b. What has been the impact of other factors occurring simultaneously (e.g. state No Jab, No Play policies or other parenting payment policies)?
- c. What was the impact of incentive payments on vaccination providers?
- d. Did the media coverage of the Measure influence behaviour change?

3. Were there any unintended impacts (positive or negative) of the Measure?

- a. How did the Measure's impact vary across areas of different socio-economic status and in different geographic regions?
- b. What was the Measure's impact on families with children born overseas or recently arrived families?
- c. Among parents, is there evidence that disadvantaged groups experienced:
 - i. Loss of payments/income?
 - ii. Reduced child care attendance?
 - iii. Lower parental employment rates?

4. Is the Measure cost-effective? (cost benefit analysis)

- a. How effective is the policy in comparison with alternative interventions (to be drawn from the literature i.e. whether incentives are better than sanctions)?

5. Have there been any ongoing implementation challenges following the post implementation phase?

- a. Have all issues, risks and complex scenarios been effectively addressed?
- b. Is the Management Information (AIR/EDW) of sufficient quality to adequately monitor eligibility for payments and ongoing impacts of the Measure?
- c. Are any impacts likely to be sustained (i.e. will governance structures remain in place? Impact of phasing out of FTB-part A end of year supplement – will no longer act as policy lever?)

6.4.2 Suggested methods/design

We recommend that any impact evaluation adopt a 'before and after' mixed method design as it will not be possible to utilise a counterfactual or comparison group to assess impact.

Quantitative data analysis:

As outlined in the Data Scoping section above, the issues to be explored through quantitative data analysis of departmental data would include an assessment of the impact of the Measure on changes in immunisation rates in target populations over the short, medium and long-term. This analysis would use the data linkage from DHS and ACIR to extend Day One Implementation reports to include:

- an analysis of socio-demographic characteristics of customers whose children meet or do not meet immunisation requirements
- an analysis of geographic location of customers whose children meet or do not meet immunisation requirements
- analysis of whether the children with a historical register of conscientious/vaccine objection meet immunisation requirements.

This analysis would require regular detailed reports (quarterly) to be extracted from the DHS/AIR databases over the period from the baseline date of 1 January 2016 until the end of the impact evaluation assessment period in 2018. DHS would need to provide data for the impact evaluation researchers (due to privacy considerations) and as such, DHS would incur costs that would need to be factored into the budget for the impact evaluation.

2. *Consequences for disadvantaged groups* including:

- loss of payments; this analysis would be based on DHS EDW data and would require data extraction based on the Day One Implementation reports for categories of disadvantaged groups as outline in the Data Scoping section above. These would be regular reports to look at changes over time in groups who have lost payments or become up to date with immunisation requirements
- lower family income; data on the average amounts of payment lost would also be required from the DHS EDW for disadvantaged groups
- decline in child care attendance; this data could be sourced from the Child Care Management system at DET or the DHS data. The analysis would consider the trends and patterns of child care attendance for children who do not meet immunisation requirements by socio-demographic characteristics (DHS) and geographical characteristics (DET or DHS)
- parental workforce participation; analysis of data from DHS for customers in receipt of income support payments for whom data on employment status/hours/income and data on children meeting immunisation status is collected
- increase in the number of medical exemptions (addressing the concern that COs started applying for medical exemptions after 1 January); this data could be sourced from ACIR/AIR examine pre and post implementation rates of medical exemptions.

The analysis for this component of the impact evaluation would rely on data extracted from DHS EDW and ACIR/AIR over a 2–3 year period and would therefore incur costs for DHS and Health that would need to be accounted for in the impact evaluation budget.

Qualitative data collection:

We recommend that qualitative data collection be undertaken with a range of stakeholders to gain their views on the impact of the Measure. The qualitative data will explore evaluation questions 2, 3 and 5 (and their sub-questions): the extent to which changes can be attributed to the Measure, unintended impacts and the sustainability of the Measure's impact.

We recommend that qualitative data collection be conducted in multiple sites in NSW, Queensland and Victoria as these three states also have *No Jab No Play* policies. We also recommend including one other state. The qualitative data collection should be conducted in urban, regional and remote sites. The qualitative data collection could include both one-to-one in-depth interviews (face-to-face and by phone) and focus groups where possible. One option would be to conduct case studies in particular geographic locations, which could be chosen according to a range of criteria including:

- above/below average increases in vaccination rates
- rates of cancelled child care payments and/or FTB-A supplement
- low baseline vaccination rates/high conscientious objection rates
- other criteria (e.g. appeals, Secretary's Exemptions etc.).

Stakeholder groups:

1. policy staff; as the Measure was introduced by the Australian Government, with on the ground implementation at state level, any impact evaluation should consult with policy staff in at both levels of government in the four nominated states.
2. general practitioners & vaccination providers; any impact evaluation should include consultation with general practitioners and vaccination providers in the four states. This consultation will help identify the impact of incentives, whether vaccine confidence has increased, barriers to and facilitators of immunisation and any issues with recording and updating immunisation data (including incomplete records, software issues, any increase in requests for medical exemptions since the introduction of the Measure).
3. parents; consultation with a range of parents directly affected by the Measure is critical for assessing the impact of the Measure on changing behavior. Consultation should be undertaken in all four states and a stratified sampling approach used to ensure that the following groups of parents are selected for consultation:
 - parents who choose to vaccinate
 - those who vaccinate because they feel compelled to (who may have otherwise have lodged a conscientious objection)
 - those who choose not to vaccinate

- parents of incompletely immunised but not vaccination objectors
- parents of children vaccinated overseas
- parents seeking medical exemptions

Consultation with parents should explore their perspectives on immunisation in general (health benefits vs fear of losing payments, vaccine confidence, barriers and enablers to vaccination), their child's immunisation status, whether the Measure prompted any change in their child's immunisation status, whether they incurred a financial loss as a result of the Measure or whether their child care or workforce participation changed following the introduction of the Measure. It should be noted that accessing parents, especially those who are vaccine hesitant or objectors, will be challenging. Recruitment may have to be done through a number of different methods including social media, service providers, Centrelink etc.

4. experts; An additional group of stakeholders that might be included in any impact evaluation are experts in public health and immunisation. Ideally, these stakeholders would have a good understanding of the ACIR/AIR and the relative impact of using payments as a lever versus the impact of accompanying support (e.g. communications with doctors) to encourage behavioural change.

Economic evaluation

The economic evaluation could draw upon the findings of any impact evaluation and will model the economic costs and benefits of vaccinating additional children after the onset of the Measure. Where possible, this analysis will include a geographical breakdown, as the benefits of vaccinating a child living in an area with low vaccination rates will be greater than a child living in an area with already high rates of vaccination. Similarly, if possible, the modelling will include vulnerable groups such as Aboriginal and Torres Strait Islander and CALD children who are at higher risk of vaccine preventable disease.

The analysis should include the Australian Government and state and territory costs of implementing the Measure as well as direct savings from the FTB supplement and CCB components of the Measure. Where possible, the analysis should also include the costs and benefits of unintended consequences of the Measure (e.g. reduced parental workforce participation, reductions in child care uptake) indicated in section 6.2.1.

6.4.3 Evaluation timescales

The design could include staged data collection/analysis – to determine short, medium and long-term impact.

One stakeholder felt that any impact evaluation should commence sooner rather than later as stakeholders' recollections will fade if it is delayed. However, because

of the way FTB is calculated, the improvements to the AIR due in 2017 and the availability of data the most appropriate timescale for the evaluation would be mid-2017–mid-2020.

6.4.4 Costs of evaluation

A broad estimate of the costs of the evaluation would be around \$400 000. This would include analysis of administrative data including data linkage with a number of datasets, qualitative interviews with stakeholders and five geographical case studies in different communities. These costs would be reduced if:

- some of the data linkage and/or analysis was conducted internally by DSS/DHS
- fieldwork did not involve interviews with parents
- case studies were reduced to three geographical areas.

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