

Supplementary Table S1. Characteristics of included studies.

Authors, Year, Location	Sample	Method	Legislation Evaluated	Key Findings
Armiento et al. (2020) Melbourne, Victoria; Royal Children's Hospital (RCH)	(Parent/guardian and clinicians of children attending the Specialist Immunisation Clinic (SIC) and the Immunisation Drop in Clinic (DIC) at Royal Children's Hospital, Melbourne (RCH)) 607 participants included: 395 from DIC and 214 from SIC	Three surveys: SIC Parent SIC Physician DIC Parent (SIC included parent and physician survey for each child) Australian Immunisation Register (AIR) data (baseline and 7 months after clinic attendance)	No Jab No Pay No Jab No Play	<ul style="list-style-type: none"> • Motivation to attend services due to policies at nurse-led immunisation drop-in Centre (DIC) or physician-led Specialist Immunisation Clinic (SIC): <ul style="list-style-type: none"> ⇒ No Jab No Pay = 2% ⇒ No Jab, No Play = 2% ⇒ Both NJNPay and NJNPlay = 8% • Introduction of policies significantly motivated more vaccine hesitant parents (16%) compared to accepting parents (6%) with a difference of 26% (CI 16.6–34.4, $p < 0.001$). • No Jab, No Play was slightly more influential in motivative parents to attend the clinics (8-9%) than No Jab No Pay (5-6%). • Among parents of under-vaccinated children who planned to catch up their child's vaccine to enrol them in childcare and/or kindergarten <ul style="list-style-type: none"> ⇒ 89% vaccine accepting parents ⇒ 50% vaccine hesitant parents ⇒ 26% planning to seek medical exemption ⇒ 24% not planning to enrol their child. • Baseline <ul style="list-style-type: none"> Fully vaccinated = 64% (<19mths = 74%; ≥19mths = 50%) Partially vaccinated = 34% (<19mths = 23%; ≥19mths = 49%) Unvaccinated = 2% (<19mths = 3%; ≥19mths = 1%) • One month post clinic attendance <ul style="list-style-type: none"> ⇒ Fully vaccination = 72% (<19mths = 80%; ≥19mths = 61%) ⇒ Partially vaccinated = 27% (<19mths = 19%; ≥19mths = 39%) ⇒ Unvaccinated = 0.5% (<19mths = 1%; ≥19mths = 0%) • Seven-month post clinic attendance <ul style="list-style-type: none"> Fully vaccinated = 68% (<19mths = 73%; ≥19mths = 61%) Partially vaccinated = 32% (<19mths = 27%; ≥19mths = 39%) Unvaccinated = 0% (<19mths = 0%; ≥19mths = 0%) • Compared to baseline, full vaccination rates were higher for 1 month post attendance for parent motivated by the policies (40%) or vaccine hesitant (35%).

<p>Attwell et al. (2020)</p> <p>Australia (National data)</p>	<p>Australian Immunisation Register (AIR) data for children ages 12, 24 and 60 months</p> <p>Deidentified AIR data 31 March, 2019 covering the period 2009-2017 for children ages 12, 24 and 60 months</p>	<p>Time-series analysis</p>	<p>No Jab No Pay No Jab No Play</p>	<ul style="list-style-type: none"> • Due to changes to coverage assessment for full coverage at 24 months it was not possible to test for policy-related changes for this age group. • Rates of children not fully vaccinated at 12 months and 5 years steadily declined from 2009 to 2017 • In all states/territories there was a larger annual rate of decrease of 12 months and 5-year old's not fully vaccinated after policy intervention, however this was not significant • However, for New South Wales, vaccine coverage rates were static prior to policy intervention, but reflected an annual increase in coverage rates of 1.25% after policy implementation ($p = 0.001$). • The impact of the policies was indistinguishable between communities with high, medium and low numbers of registered vaccine refusers. • Difficult to discern specific policy impact with the implementation of the Federal NJNPay policy in 2016 and staggered implementation of NJNPlay (e.g. NSW, 2014; Victoria 2016)
<p>Centre for Evaluation and Research Evidence (2020)</p> <p>Victoria</p>	<p>AIR data (2013-20)</p> <p>Department of Education and Training data (2013-20)</p> <p>Kindergarten Information Management System and Victorian Child and Adolescent Monitoring System quantitative data (n = 1,062 surveys)</p> <p>– parent/carer survey (n = 440)</p> <p>– immunisation provider survey (n = 266)</p> <p>– early childhood education and care service provider survey (n = 356)</p> <p>Qualitative data</p>	<p>Mixed methods:</p> <p>Document analysis</p> <p>Literature review</p> <p>Analysis of data-bases</p> <p>Surveys</p> <p>Interviews</p>	<p>No Jab No Play</p>	<ul style="list-style-type: none"> • Increase in immunisation rate since introduction of the No Jab No Play legislation in Victoria (2016) <ul style="list-style-type: none"> ⇒ 1 year old = 3.4% ⇒ 2 year old = 3.7% ⇒ 5 year old = 3.3% • Healthcare providers (84%) acknowledged that legislation led to increased vaccine uptake. • Vaccine hesitant parents: <ul style="list-style-type: none"> ⇒ Influenced by the legislation and peak increase in vaccination rate observed when legislation was introduced. ⇒ Immunisation providers (74%) reported that reputable and accurate information to be provided to parents/carers with vaccine safety concerns. • Aboriginal and Torres Strait Islander Immunisation coverage high and exceeded the target for 1-year-old (96.8 per cent) and 5-year-olds (97.9 per cent) Immunisation rates for Aboriginal and Torres Strait Islander children aged 2 years is steadily increasing and is 92.6 per cent, but still 2.4 per cent below the target rate

	<ul style="list-style-type: none"> – key informant interviews (n = 43) – parents and carers, ECECS providers, immunisation providers, immunisation and education experts, peak bodies, migrant services, and Aboriginal community-controlled organisations – written submissions (n = 9) key stakeholder organisations and peak bodies. 			
<p>Cordingley et al. (2021)</p> <p>New South Wales (one rural medical practice data)</p>	<p>All patients aged 21 months to ≤ 19 years at the practice who received a national immunisation program (NIP) vaccination between 2012-17 (cohort: n = 6,422; n = 2,133 NIP vaccine records; n = 453 catch up vaccinations)</p>	<p>Retrospective clinical audit: single medical practice</p> <p>Data collected 9th January 2018</p> <p>Vaccinations considered overdue if given 3 months after the due date</p>	No Jab No Pay	<ul style="list-style-type: none"> • Focused on the impact of NJNPay on catch-up vaccinations. • Incidence of annual catch-up vaccinations for the year 2012 – 2015 was on average 6.2% pre-policy implementation. • An increase from 6.2% to 9.2% in 2016 (p < .001) and 7.8% in 2017 (p = .027) was observed post-policy implementation. • Age as a secondary outcome measurement of catch-up vaccination incidence rates before policy implementation showed statistically significant: <ul style="list-style-type: none"> ⇒ increases for children: <ul style="list-style-type: none"> 8–11 years (3.2%–5.6%, p = .038) 12–15 years (7.5%–14.7%, p < .001) 16–19 years (3.3%–10.2%, p < .001) ⇒ reduction in children aged 1–3 years (11.4%–6.2%, p = .015) • Vaccination type as a secondary outcome measurement of catch-up vaccination incidence rates before policy implementation showed statistically significant catch-up rates for DTPa (1.6%-2.4%, p = 0.022)
<p>Frawley et al. (2018)</p> <p>Australia</p>	<p>Australian parents with at least one child <6 years</p> <p>N= 429</p>	<p>Cross- sectional survey: Online, self complete</p>	No Jab No Pay	<ul style="list-style-type: none"> • Influence of information sources on vaccination. <ul style="list-style-type: none"> ⇒ GPs (78.3%), friends/family (55.7%), nurses/midwives (43.4%), government websites (33.3%), paediatricians (30.5%), parenting groups (16.8%), non-government websites (13.1%), newspapers/magazines (8.4%), CM-practitioners (6.3%) and pharmacists (4.4%) ⇒ Significant relationship between vaccine uptake and being influenced by a paediatrician (p = .001) or GP (p = .019).

				<p>⇒ significant relationship between child vaccination status not being up-to-date and being influenced by a CM-practitioner ($p < .001$), non-government website ($p = .002$) or information source other than those listed ($p < .001$).</p> <ul style="list-style-type: none"> • Introduction of NJNPay and influences on parents' decision to vaccinate <ul style="list-style-type: none"> ⇒ 2.6% of parents had their child immunised ⇒ 3.9% stated had no effect ⇒ 1.2% said it had made them less likely to vaccinate ⇒ 1.2% of parents stated they are considering vaccination due to the legislation.
<p>Helps, Leask & Barclay (2018)</p> <p>New South Wales (Bryon Region)</p>	Non-vaccinating parents (n = 31)	Qualitative: semi-structured face-to-face interviews	No Jab No Pay	<ul style="list-style-type: none"> • Impact of legislative changes on families was minimum due to: <ul style="list-style-type: none"> ⇒ Ineligibility based on income ⇒ their choice not to receive government payments for which they were eligible and/or ⇒ low utilisation of childcare services • Strategies suggested by families who are currently, or expecting to be, affected by the inability to lodge exemptions and receive family tax benefits and childcare subsidies include: <ul style="list-style-type: none"> ⇒ increasing extended family support ⇒ reducing work and study commitments ⇒ informal childcare arrangements, house sharing or relocating to reduce rental burden ⇒ withdrawal of children from childcare, including before and after school care services. • Participants reported that the government measure would not change their mind about vaccinating their children. • Concerns were expressed about further punitive for those declining vaccination and home schooling or accessing education outside the mainstream system were reported as solutions.
<p>Hull et al. (2020)</p> <p>Australia (National data)</p>	Participants: AIR data for children 5 to <7 years; 7 to <10 years; 10 years to <20 years	Cross sectional analysis of AIR data on catch-up vaccination AIR data from 1 January 2013-31 December 2014 (baseline, prior to NJNPay)	No Jab No Pay	<ul style="list-style-type: none"> • NJNPay and catch-up vaccination explored • Ages 5 to less than 7 years: <ul style="list-style-type: none"> ⇒ Proportion of DTPa3 catch-up vaccination after introduction of No Jab No Pay was 15.5% (3,366 of 35,673 unvaccinated children) indicating an increase from 9.4% at baseline.

		<p>and 1 December 2015- 31 December 2017</p> <p>Analyse catch-up vaccination rate for third dose of DTPa3 and first dose of MMR1at baseline. Catch-up for selected vaccination at 5 to less than 7 years; 7 to less than 10 years and 10 to less than 20 years. MMR2 catch-up vaccinations by socio-economic status; Indigenous status and geographic characteristics. Analyses conducted by age group, geographical location (remote or metropolitan), socio-economic status and Aboriginal and Torres Strait Islander status.</p>		<p>⇒ Lower catch-up rates in remote (18.3%) and regional (21.5%) compared to metro areas (22.7%).</p> <ul style="list-style-type: none"> • Ages 7 to less than 10 years: <ul style="list-style-type: none"> ⇒ 22.3% received MMR2 and 12.5% received DTPa3 vaccination catch up during first two years of No Jab No Pay. ⇒ Greater increase for those with lowest socio-economic status (32.3%) compared to highest status areas (14.6%). ⇒ Greater increase indigenous (43.4%) compared to non-indigenous Australians (21.9%). • Ages 10 to less than 20 years: <ul style="list-style-type: none"> ⇒ 17.6% received MMR2 and 8.8% received dTpa3 vaccination catch up during first two years of No Jab No Pay. ⇒ Greater increase for those with lowest socio-economic status (29.1%) compared to highest status areas (7.6%). ⇒ Greater increase indigenous (35.8%) compared to non-indigenous Australians (17.1%). ⇒ Lower catch-up rates in remote (15.8%) and metro areas (17.1%) compared to regional (19.5%) areas.
<p>Li and Toll (2021)</p> <p>Australia (National data)</p>	<p>AIR data for children aged <= 6 years</p>	<p>Generalised linear models on data 2014-2018 Statistical Area 3</p>	<p>No Jab No Pay</p> <p>No Jab No Play</p>	<ul style="list-style-type: none"> • Removal of philosophical or religious exemptions was associated with increases in vaccine coverage: <ul style="list-style-type: none"> ⇒ Approx. 2-4% increase for one years; ⇒ Approx. 1-1.5% increase for two years; ⇒ Approx. 1-3.5% increase for five years <p>Greater improvement in coverage was found in areas with greater socioeconomic disadvantage, lower median income, more benefit dependency, and higher pre-policy baseline coverage</p>
<p>Toll and Li (2022)</p> <p>Australia (National data)</p>	<p>AIR data (1-, 2-, 5-year-olds), linked to regional characteristics from the Australian Bureau of Statistics at the statistical area 3 (SA3) level</p>	<p>Data compared between January 2016 and December 2019</p> <p>Intervention and control and before and after study design</p>	<p>No Jab No Play</p>	<ul style="list-style-type: none"> • Increases in coverage significant, however small at around 1% across age groups • Increases greater for 2-and 5-year-olds • Considering aggregate time trends and regional characteristics improvement in full coverage post year 1 and 2 of policy implementation: <ul style="list-style-type: none"> • Age one (post-year 1: 0.15%; post-year 2: 0.56%) • Age two (post-year 1: 0.49%; post-year 2: 1.15%)

		<p>NSW and WA data were used for the main estimation using a quasi-experimental design. NJNPlay was introduced (without consintious objections) in NSW and WA in 2018 and 2019 respectively.</p> <p>Analysis for Queensland and Victoria where NJNPay and NJNPlay were both implemented in 2016 employed a repeated measures group modelling approach. Other States/Territories acted as control</p>		<ul style="list-style-type: none"> • Age five (post-year 1: 0.38%; post-year 2: 0.71%) • Policy effect was insignificant and dispersed the lowest quantiles of disadvantage • Policy effect was smaller and insignificant in the highest socio-economic areas
<p>Trent et al. (2019)</p> <p>Australia</p>	<p>Parents with children < 5 years (n = 411)</p>	<p>Online survey distributed by Survey Sampling International (SSI)</p> <p>Randomly distributed to SSI panel members to achieve a representative sample in terms of gender and state/territory residence</p>	<p>No Jab No Pay</p>	<ul style="list-style-type: none"> • Support for No Jab No Pay <ul style="list-style-type: none"> ⇒ Supportive of the policy (82%) ⇒ Females were twice as likely as males to support the policy (OR = 2.14, 95% CI [1.28, 3.61], $p < 0.01$), but no difference observed after controlling for disease risk perception and needing the financial incentives (AOR 1.62, 95% CI [0.92, 2.84], $p = 0.09$) ⇒ Demographics status such as age, country of birth, education level, Aboriginal/Torres Strait Islander status, or state/territory of residence did not affect the results ⇒ No significant difference in supporting the policy observed between those who utilise childcare services compared to those who don't ⇒ For parents that reported needing the financial incentive to afford their family expenses, the odds of supporting the policy were more than twice than those who don't (OR = 2.14, 95% CI = [1.24, 3.68], $p < 0.001$) • Increased willingness to vaccinate as a result of the legislation 32% • Willingness to vaccinate <ul style="list-style-type: none"> ⇒ To reconsider vaccination were more than nine times higher among respondents that reported needing the financial incentives (AOR = 9.66, 95% CI = [4.98, 18.72], $p < 0.001$). ⇒ Parents that reported utilising child care centres or family day care had more than twice the odds of being willing to reconsider

				<p>vaccination compared to parents that did not (AOR = 2.09, 95% CI = [1.04, 4.17], p = 0.04).</p> <p>⇒ Victoria respondents had higher odds of reconsidering vaccination compared to those from New South Wales and other states (AOR = 2.32, 95% CI = [1.00, 5.38], p = 0.05)</p> <p>⇒ Demographics status such as age, country of birth, education level, Aboriginal/Torres Strait Islander status, or state of residence did not affect the results</p>
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