

# Strategic review of

# **Cape York Income Management**

APPENDICES TO FINAL REPORT

Department of Social Services

November 2018

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# Appendix 1—Qualitative data matrix

No.	Source type	Date of collection/publication	Description	In-text reference identifier	
			Interviews and focus groups		
1	Transcript of FRC focus group 1	10 May 2018	Transcript of focus group 1, conducted by DSS with Commissioner Glasgow and Local Commissioners from Aurukun, Coen and Mossman Gorge. Focus group undertaken at Doubletree Hilton, Cairns. Transcript provided to the Research Team by DSS.	Focus group 1, 2018	
2	Transcript of FRC focus group 2	10 May 2018	Transcript of focus group 2, conducted by DSS with Deputy Commissioner Curtin and Local Commissioners from Hope Vale and Doomadgee. Focus group undertaken at Doubletree Hilton, Cairns. Transcript provided to the Research Team by DSS.	Focus group 2, 2018	
3	Summary of consultations with FRC Local Commissioners	Collected in 2017, collated in 2018	Summary of consultations between FRC Local Commissioners and independent consultancy, Dav'ange Consulting, held in 2017 to inform the consultancy's independent review.	Dav'ange Consulting, 2018	
4	Transcript from interview with Commissioner Glasgow	1 June 2018	Transcript from semi-structured interview, conducted by member of the QUT Research Team, with Commissioner Glasgow of the FRC. Interview was conducted in Cairns.	Interview 1, 2018	
5	Transcript from interview with FRC Registrar and FRC Senior Advisor (Statistics and Research)	1 June 2018	Transcript from semi-structured interview, conducted by member of the QUT Research Team, with FRC Registrar, Maxine McLeod. Interview was conducted in Cairns.	Interview 2, 2018	
6	Transcript from interview with State Government Senior Coordinator for Aurukun	1 June 2018	Transcript from semi-structured interview, conducted by member of the QUT Research Team, with State Government Senior Coordinator for Aurukun, Brendan McMahon. Interview was conducted in Cairns.	Interview 3, 2018	
	Evaluations and reviews				
7	Implementation review of the FRC	2010	Implementation review of the FRC, commissioned by the Department of Families, Housing, Community Services and Indigenous Affairs, and conducted by KPMG Consulting	KPMG, 2010	
8	Social change survey results	2012	Chapter 4 of CYWR evaluation, describing results of a 'social change survey', distributed to the original four CYWR communities in an effort to gauge reactions and opinions regarding the FRC and IM.	Colmar Brunton Social Research, 2012	

No.	Source type	Date of collection/publication	Description	In-text reference identifier	
9	Overview of CYWR evaluation	2012	Chapter 1 of CYWR evaluation, providing an overview of the evaluation findings.	Limerick, 2012	
10	Introduction to CYWR evaluation	2012	Introduction to CYWR evaluation.	FaHCSIA, 2012	
11	Review of service delivery in CYWR evaluation	2012	Chapter 6 of the CYWR evaluation, reviewing service delivery.	Putt, 2012	
12	Review of authority, leadership and social norms in the CYWR evaluation	2012	Chapter 5 of the CYWR evaluation, reviewing authority, leadership and social norms.	Reynolds, Subasic and Jones, 2012	
13	Review of CYWR implementation in CYWR evaluation	2012	Chapter 3 of the CYWR evaluation, reviewing implementation of CYWR.	Social Policy Research Centre, 2012a	
14	Review of the FRC in CYWR evaluation	2012	Chapter 7 of the CYWR evaluation, reviewing the FRC.	Social Policy Research Centre, 2012b	
15	Review of outcomes in CYWR evaluation	2012	Chapter 8 of the CYWR evaluation, reviewing outcomes of CYWR.	Social Policy Research Centre and FaHCSIA, 2012	
16	Review final report	October 2017	Final report from a review undertaken by Dav'ange Consulting, commissioned by the FRC	Dav'ange Consulting, 2017	
17	Australian Government Budget Paper	2017	Australian Government Budget Paper 2017-18, Budget related paper no. 1.15B, <i>Social Services Portfolio</i> .	Australian Government, 2017	
18	Review report—summary of consultations	May 2018	Summary of consultations undertaken by Dav'ange Consulting, which was commissioned by the FRC to undertake an outcome review	Dav'ange Consulting, 2018	
	FRC publications				
19	FRC Annual report	2008-09	FRC Annual report, covering July 2008 to June 2009.	FRC, 2009e	
20	FRC Quarterly report	2009	FRC Quarterly report number 5, covering July-September 2009	FRC, 2009d	
21	FRC Quarterly report	2009	FRC Quarterly report number 4, covering April-June 2009	FRC, 2009c	
22	FRC Quarterly report	2009	FRC Quarterly report number 3, covering January-Mary 2009	FRC, 2009b	
23	FRC Quarterly report	2008-09	FRC Quarterly report number 1 and 2, covering July-December 2008.	FRC, 2009a	
24	FRC Annual report	2009-10	FRC Annual report, covering July 2009 to June 2010.	FRC, 2010e	

No.	Source type	Date of	Description	In-text reference
		collection/		identifier
		publication		
25	FRC Quarterly report	2010	FRC Quarterly report number 9, covering July-September 2010	FRC, 2010d
26	FRC Quarterly report	2010	FRC Quarterly report number 8, covering April-June 2010	FRC, 2010c
27	FRC Quarterly report	2010	FRC Quarterly report number 7, covering January-March 2010	FRC, 2010b
28	FRC Quarterly report	2009-10	FRC Quarterly report number 6, covering October-December 2009	FRC, 2010a
29	FRC Annual report	2010-11	FRC Annual report, covering July 2010 to June 2011.	FRC, 2011e
30	FRC Quarterly report	2011	FRC Quarterly report number 13, covering July-September 2011	FRC, 2011d
31	FRC Quarterly report	2011	FRC Quarterly report number 12, covering April-June 2011	FRC, 2011c
32	FRC Quarterly report	2011	FRC Quarterly report number 11, covering January-March 2011	FRC, 2011b
33	FRC Quarterly report	2010-11	FRC Quarterly report number 10, covering October-December 2010	FRC, 2011a
34	FRC Annual report	2011-12	FRC Annual report, covering July 2011 to June 2012.	FRC, 2012e
35	FRC Quarterly report	2012	FRC Quarterly report number 17, covering July-September 2012	FRC, 2012d
36	FRC Quarterly report	2012	FRC Quarterly report number 16, covering April-June 2012	FRC, 2012c
37	FRC Quarterly report	2012	FRC Quarterly report number 15, covering January-March 2012	FRC, 2012b
38	FRC Quarterly report	2011-12	FRC Quarterly report number 14, covering October-December 2011	FRC, 2012a
39	FRC Annual report	2012-13	FRC Annual report, covering July 2012 to June 2013.	FRC, 2013e
40	FRC Quarterly report	2013	FRC Quarterly report number 21, covering July-September 2013	FRC, 2013d
41	FRC Quarterly report	2013	FRC Quarterly report number 20, covering April-June 2013	FRC 2013c
42	FRC Quarterly report	2013	FRC Quarterly report number 19, covering January-March 2013	FRC, 2013b
43	FRC Quarterly report	2012-13	FRC Quarterly report number 18, covering October-December 2012	FRC, 2013a
44	FRC book	2013	Book about the history, establishment and preliminary outcomes of	Dean, 2013
			the FRC (published by the FRC).	
45	FRC Annual report	2013-14	FRC Annual report, covering July 2013 to June 2014	FRC, 2014e
46	FRC Quarterly report	2014	FRC Quarterly report number 25, covering July-September 2014.	FRC, 2014d
47	FRC Quarterly report	2014	FRC Quarterly report number 24, covering April-June 2014	FRC, 2014c
48	FRC Quarterly report	2014	FRC Quarterly report number 23, covering January-March 2014	FRC, 2014b
49	FRC Quarterly report	2013-14	FRC Quarterly report number 22, covering October-December 2013	FRC, 2014a
50	FRC Annual report	2014-15	FRC Annual report, covering July 2014 to June 2015	FRC, 2015e
51	FRC Quarterly report	2015	FRC Quarterly report number 29, covering July-September 2015.	FRC, 2015d
52	FRC Quarterly report	2015	FRC Quarterly report number 28, covering April-June 2015.	FRC, 2015c
53	FRC Quarterly report	2015	FRC Quarterly report number 27, covering January-March 2015.	FRC, 2015b
54	FRC Quarterly report	2014-15	FRC Quarterly report number 26, covering October-December 2014	FRC, 2015a

No.	Source type	Date of collection/publication	Description	In-text reference identifier	
55	FRC Annual report	2015-16	FRC Annual report, covering July 2015 to June 2016	FRC, 2016e	
56	FRC Quarterly report	2016	FRC Quarterly report number 33, covering July-September 2016.	FRC, 2016d	
57	FRC Quarterly report	2016	FRC Quarterly report number 32, covering April-June 2016.	FRC, 2016c	
58	FRC Quarterly report	2016	FRC Quarterly report number 31, covering January-March 2016.	FRC, 2016b	
59	FRC Quarterly report	2015-16	FRC Quarterly report number 30, covering October-December 2015.	FRC, 2016a	
60	FRC Annual report	2016-17	FRC Annual report, covering July 2016 to June 2017	FRC, 2017e	
61	FRC Quarterly report	2017	FRC Quarterly report number 37, covering July-September 2017.	FRC, 2017d	
62	FRC Quarterly report	2017	FRC Quarterly report number 36, covering April-June 2017.	FRC, 2017c	
63	FRC Quarterly report	2017	FRC Quarterly report number 35, covering January-March 2017.	FRC, 2017b	
64	FRC Quarterly report	2016-17	FRC Quarterly report number 34, covering October-December 2016.	FRC, 2017a	
65	FRC book	2017	Book about the history of the FRC Local Commissioners.	Dean, 2017	
66	FRC Quarterly report	2017-18	FRC Quarterly report number 38, covering October-December 2017.	FRC, 2018a	
			Government reports and documentation		
67	Research paper, commissioned by FaHCSIA, describing interviews with CYWR community members and FRC Local Commissioners	July- August 2012	Research paper describing findings from interviews with CYWR community members and FRC Local Commissioners.	von Sturmer and Le Marseny, 2012	
68	Sworn statement of Aurukun police station Officer-in-Charge.	17 September 2012	Sworn statement of Brendan McMahon (then Officer-In-Charge of Aurukun police station) to Queensland Child Protection Commission of Inquiry	McMahon, 2012	
69	Parliamentary Committee report	2017	Report from the Queensland Infrastructure, Planning and Natural Resources Committee, which has oversight of the FRC (report number 52).	IPNRC, 2017	
	Research publications				
70	Research paper examining CYWR	2008	Research paper entitled 'Whose right to take responsibility?'	Martin, 2008	
71	Research paper examining the FRC	2008	Research paper entitled 'The Family Responsibilities Commission Act 2008 (Qld): cause for concern'	Watson, 2008	

No.	Source type	Date of collection/publication	Description	In-text reference identifier
72	Research paper examining evidence for the FRC	2010	Research paper entitled 'The Family Responsibilities Commission: facilitating socially responsible standards of behaviour in Cape York?'	Billings, 2010
73	Research paper examining CYWR	2011	Research paper entitled 'Special measures in Indigenous welfare reform: examining the Cape York trial (Queensland, Australia)'	Smyth, 2011
74	Research paper examining the FRC	2012	Research paper entitled 'The Family Responsibilities Commission: building Indigenous leadership and laying the foundation for social change in Aurukun (Queensland)'	Le Marseny, 2012a
75	Research paper examining the FRC	2012	Research paper entitled 'The Family Responsibilities Commission: an agent for positive social change in Australian discrete Indigenous communities'	Le Marseny, 2012b
76	Research paper examining the evidence for IM schemes across Australia	2014	Research paper entitled 'Income management in Australia: a critical examination of the evidence.	Mendes, Waugh and Flynn, 2014
77	Research paper examining the underlying ideology of CYWR	2015	Research paper entitled 'The Cape York Welfare Reform trial—continuing acts of paternalism'	Campbell, 2015
78	Research paper regarding IM in NT	2016	Research paper entitled 'Blind-sided basics: three perspectives on income management in an Aboriginal community in the Northern Territory'	Altman, 2016
79	Research paper examining the evidence for IM	2016	Research paper entitled 'Seven years of evaluating income management—what have we learnt? Placing the findings of New Income Management in the Northern Territory in context.'	Bray, 2016
Other documents				
80	Transcript of speech by Noel Pearson to the Dr Charles Perkins Memorial Oration at the University of Sydney	2001	Speech by Noel Pearson, entitled 'On the human right to misery, mass incarceration and early death'	Pearson, 2001
81	Report by Noel Pearson describing the Cape York Agenda	2005	Speech by Noel Pearson, describing the Cape York Agenda, entitled 'The Cape York Agenda: fundamental transformation through radical reform'	Pearson, 2005
82	CYWR design report	2007	Cape York Institute's original design recommendations for the CYWR, including the FRC and its IM function.	Cape York Institute, 2007

No.	Source type	Date of	Description	In-text reference
		collection/		identifier
		publication		
83	Collection of essays by Noel	2009	Collection of essays entitled 'Up from the Mission: selected writings'	Pearson, 2009
	Pearson			

# Appendix 2—FRC client case studies

The following 27 case studies have been extracted from various sources. Most (21, 78%) were contained in FRC reports, though some (six, 22%) were also derived from the broader academic literature (Ford, 2012; von Sturmer and Le Marseny, 2012) and one from an earlier review (Dav'ange, 2018). The source of each case study is included below; each case appears in chronological order, depending on the date it was published.

Although excerpts from these case studies are included throughout the body of this report, they are also included here in full because they are easier to interpret and provide a deeper insight into each client's different experiences and motivations.

#### Case study 1

Source: FRC, 2009a, p. 34

"I have lived in community all my life. I used to drink and smoke excessively as a way of dealing with the problems in my life. I thought the alcohol was helping me but I could feel my life going out of control.

I was very angry when I was first told to attend conference. I was initially very unhappy about having my income managed when the Commissioners made this decision at the conference. I have now changed my mind as having my income managed means that I always have money on my BasicsCard to buy food and I have opened a savings account. The Commissioners also arranged for me to have a case plan and attend the Wellbeing Centre here in community.

The staff at the Wellbeing Centre are a great source of support and I continue to go there when I need to talk to someone. I am very proud that I have successfully completed the Alcohol, Tobacco and Other Drug Services (ATODS) programme and have learnt other strategies to deal with stress like talking about the problems, finding other ways to relax and not worrying about things that I have no control over. I am also now working three days a week and I enjoy going to work and feel proud when I have done a good job.

I voluntarily joined the Women's group so I could share my story and seek support from the other women in community. I enjoy spending time with my four children, playing with them and watching movies. It feels good to have little bit of extra money tucked away for a rainy day. I am planning for the future which includes moving out of the house that I share with extended family members and I want to move into my own house. I enjoy the outdoors and I one day would like to be a ranger or work as a landscaper. I have obtained a learner's driver's license and I am working towards getting my provisional license. I now have a lot of reasons to smile."

# Case study 2

Source: FRC, 2009a, p. 14

The FRC received a child safety notification, which was related to domestic violence including the use of weapons. When the notification was received, the Department of Child Safety had not yet removed any children from the household. However, they subsequently removed a child the day before an FRC conference could be held with the parties involved.

The FRC Commissioners "...were able to calm the family and explain the necessity for the Department to remove the child. As a result the family agreed to attend a parenting programme and the Wellbeing Centre to receive counselling for domestic violence and anger management and to comply with the Department of Child Safety's expectations and any re-unification plans developed by them. As a result of the above, the child was subsequently re-united with the family, and all participants in the agreements brokered by the Commission are attending services and complying."

# Case study 3

Source: FRC, 2009b, p. 17

"An example of where the Local Commissioners were able to assist a client of the Commission is a person who was required to attend a Commission conference in September 2009 due to child safety notifications relating to alcohol abuse, neglect of children and overcrowding in the house—which in turn lead to large consumption of alcohol and noise disturbances.

At the conference, the client agreed to look after the home better, have it declared a dry house, and attend community support services such as the Wellbeing Centre and FIM, as well as a number of personal responsibility actions such as enrolling young children in kindergarten. Eight months on and the client is doing extremely well. The house was declared a dry house, and only the children who are regularly attending kindergarten live there now.

The person is progressing very well with counselling and support services and has recently signed up for Pride of Place, having already received a lawn mower and garden supplies. Support provided by the 'old people' is now appreciated and relied on."

# Case study 4

Source: FRC, 2009e, p. 40

"I'm a grandmother and have been looking after my four grandchildren for about two years. It took a while to get the money sorted out and I had some rough times trying to manage with the kids and felt that every time someone came to my house they were judging me and my kids. Every time someone came around it was just about the kids, not how I was feeling. I felt that they did not care about me.

This new Family Responsibilities Commission said that I need to come to a meeting, I thought they were going to judge me and take my kids away, I thought the worst. I went to the meeting and I felt OK because I knew the Commissioners from the community but I was really embarrassed. We did lots of talking and they told me about the Wellbeing Centre and FIM and even suggested that I should apply for my own house with the kids. I agreed to go to a counselor [sic.] and to go back to FIM. I was worked up at the end of the meeting and felt very mixed up.

A couple of days later I went to the counselor [sic.] and they helped me, they listened to me. I told them I needed a house and they helped me. I decided to make some rules of my own and now don't allow anyone to drink at my house. At first I thought I shouldn't do this but I thought it would be better for my kids to have a house with no grog. I can go and have a drink somewhere else away from the kids. It is safer for them because people are not coming around all the time and my house is cleaner too.

The Commission spoke to other people that I live with and explained to them that we all need to try together to make it better. You know what else, I am buying a fridge and a freezer through FIM I have

some money coming from Centrelink, I went to the toy shop and looked for my kids, I am going to put some things away for Christmas day. If I have a fridge I will not have to walk to my auntie's house to get the food. I also want to buy the kids a bed each.

The Commission explained that it was important for my youngest to go to the Kindy a few days a week. She is going and she has a special teacher helping her. This has made it easier for her to learn and she is better behaved. She is used to going to Kindy now.

I look at what happened since the meeting with the Commission. I think I am cared about now. I don't think all these good things would have happened (as she looks around her house) if I did not give it a chance. You know, I felt there was no one who cared about me. The Commission could help other people like it helped me.

I feel better about myself and I am getting used to not drinking in my house. I still love to drink but now I go away and make sure someone is with my kids. I took the kids to a birthday party on the weekend, we had a good time and I did not drink. My house is clean and tidy with all new furniture's that I got with FIM's help, I am so glad I went back to FIM.

I am glad the Commission listened to me. Not long ago I met with the Commissioners again, just for a chat so they could hear what I am doing. I am proud of where I am now you know. It was nice that they listened to me. I still have a problem with grog but I am working around it. There are more important things to life than just drinking."

# Case study 5

Source: FRC, 2009e, p. 42

"I am a visitor to community in my role as a Local Coordinator, relieving my counterpart. I see a lady who is raking up her garden, there are children frolicking in the dry leaves making her job twice as hard. She is lovingly cursing the children and 'gammon' chasing them away. I approach the gate and she informs me that the family has been advised to stay at home due to 'Swine Flu'. "Don't come too close I don't want to make you sick". This lady is a client that was called to the Commission because her children were not regularly attending school.

In the past there was drinking and some violence in the home and Child Safety Services would often call around. I ask if we can yarn about the Commission. The response is swift and enthusiastic; "I went to the Commission and my partner came too. The Local Commissioners used strong words and the message was clear we must send our kids to school. I know now that I have to tell the school if my kids are not going. We agreed to go to the Wellbeing Centre and from talking to them everything is settling down. They told us that kids see everything and when they see violence this is no good. We agreed to go to FIM and they told us about putting money away for my kids school things (Student Education Trusts) and I am very thankful for that."

"The Commission gave me a good idea to spend money wisely and look after our kids if not I will get CIMed. [sic.] I have learnt to budget through FIM and there are big changes for us. I see kids enjoying themselves and they are fed."

"It is better with no canteen it stopped me drinking and my defacto has stopped drinking. My defacto was violent but he has changed and now we are happy". The children move closer to where we are talking, there are three of them trying to cram into a pram that is sitting in yard. The lady gestures to the kids to go inside as she says, "Now days, the kids drive me nuts when they're not at school"

# Case study 6

Source: FRC, 2010e, p. 26

"We knew there would be some trouble for our kids if we did not take some action' a mother reports to the Child Safety officer. 'There had been trouble in the house and the police had to be called, there was violence and the children were all around and very upset' the mother recalls.

After things had settled down the parents decided to discuss the situation with the Local Commissioners. 'We knew that Child Safety and the Commissioners would be notified of what happened, so we asked if we could come and see the Commissioners next time they were having a conference. We had been there before when the kids did not go to school, so we knew we could talk about things'. After discussing the situation with the Commissioners, a case plan was agreed.

The couple asked to be income managed and referred to support services. The mother started attending the Wellbeing Centre for counselling. The father attended the three day Ending Family Violence course and the Men's Group for follow up support. The subsequent investigation by Child Safety Services found the children happy, healthy and attending school on a regular basis, the house was clean and the fridge and cupboards were full. The mother was receiving counselling and support regularly and spoke openly of the improved family life and increased responsibility of the father towards the children.

The mother advised that; 'the BasicsCard makes it easy to budget and now after the bills and food are paid for, there is money left over for new things like clothes and kids toys, there is less for grog, but that's OK'. The Child Safety Services took no further action and is working with the family and the Commission to help them stay on track..."

#### Case study 7

Source: FRC, 2010e, p. 47

"...Recently an older man attended conference. He had come to the attention of the Commission due to a Magistrates Court notification for bringing liquor into a restricted area. The Commissioners in agreement with the man placed him on a case plan to the Wellbeing Centre to complete the substance abuse programme and the Family Income Management (FIM) programme to develop a budget and savings plan.

He was recalled to the Commission several months later for another Magistrates Court notification for bringing liquor into the same restricted area. The man reported that this was an old charge which had been delayed, he admitted it had happened, but it had happened prior to him coming before the Commission previously and before he gave up drinking.

Since his first time before the Commission, the man had been thinking about his drinking, why he kept drinking and the damage he was causing to himself, his family and his community, and he had decided to stop. He had not had a drink for the past five months and although he was finding it hard at times he was determined to stay on track. He was going to the Wellbeing Centre to talk about things, but very quietly, not telling many people about what he was doing because he did not want everyone to know about his problem. FIM was helping him look after the extra money he had now that he was no longer spending it on grog. He had even started to look into working with Pride of Place and was saving to get a gazebo in his front yard.

The Commissioners took no action in regard to the notification, congratulated the man on his efforts over the last six months, and will continue to quietly support him, especially around his family who all drink and often tempt the man to go back to the grog. The Commissioners know the chances of him going back to the grog over the long term are high but they also see the determination in the man's face. He is healthier, happier and calmer since he gave up drinking. They will be there to support him for the long haul."

# Case study 8

Source: FRC, 2010e, p. 67

"A lady attended conference today, she is well known to the Commissioners and the community, and she greets the commissioners as you would greet friends. She has been to conference many times and has a long list of prior notifications. Five from Child Safety Services, eight from Education Queensland and one from the Magistrates Court, but life has not been easy lately.

She has three children and one grandchild living with her one of the children has identified mental health and behavioural disabilities and requires constant monitoring and her partner is currently in jail. The partner is in and out of jail regularly, usually for violence and aggressive behaviour and sometimes also for possession of illegal drugs and illegal alcohol. The previous conference she was to attend was delayed until she returned from the local women's shelter after an incident with her partner. Her life is a constant challenge to keep the family together, meet the requirements of Child Safety Services and keep her partner out of jail.

In conference the Commissioners and the lady discussed the situation and agreed on a case plan to help her deal with her partner's impending release from custody for matters relating to the latest incident when she had to go to the women's shelter. For the first time in a long time she arrives at conference with a smile, her partner is back in the family home after being released from jail and things are going well. It has been three weeks since the partner attended the three day 'Ending Family Violence' course jointly conducted by Queensland Corrective Services, Department of Community Safety and the Commission. The partner had been conferenced by the Commission and referred to the programme as soon as he returned to the community after being released from jail.

As a result of the course, he tells his partner he has some understanding why he has previously been violent and what he has been doing to the family. The partner has now made a commitment to help rebuild the family. He is making changes in his attitude and relationship and he is working hard to build a better future for the children. He is walking the children to school in the mornings and helping around the house, he wants to take responsibility for the care of his children and make sure they do not see any more violence.

He knows he has lots of energy some of it bad, and thinks getting a job is the best outlet, not the drinking, smoking and fighting that he has been involved in. The Commissioners know this is early days and temptation to misuse grog again is all around. They are also aware it is easy to become violent when frustrations boil over but they are encouraging and supportive of the efforts of everyone involved.

They tell the lady they are glad to hear the good progress reports and encourage her to keep the children going to school every day, reduce the drinking in the house and enjoy time together as a family. They will support her both as Commissioners and as extended family that care for everyone involved. The male Commissioners also talk often of the benefits of attending the men's group and

doing traditional activities like fishing and hunting. They also offer the partner a place to come to when he feels like he is overheating.

Day or night, the Local Commissioners are working not only as Commissioners but also as community members that will be there to support the family in the weeks, months and years ahead and as members of their respective clans who will return to their country forever when their time comes"

# Case study 9

Source: FRC, 2010e, p. 71

"A long time has passed since I was first asked to attend my first conference. When the local coordinator came to my house with the notice saying I had to attend I was very worried and did not go to the first two conferences. However I was given a third chance by the Commissioners, the local coordinator came to my house again and asked again to attend, luckily this time, I did.

The Commissioners spoke to me about the notifications they had received and my problems. We agreed together that I needed some help and support to get me through the difficult time I was having. The Commissioners and I talked for a long time and in the end we wrote down a case plan. I agreed to attend the Family Income Management (FIM) office to help me with my financial problems and the Commissioners helped me sort out my problems with the Department of Corrections so I could complete my probation requirements.

The past year has been a good year. I have finished all my parole requirements and saved for a number of household items. My kitchen is now complete with a fridge and a microwave. My house is gradually filling up with furniture and I am now saving for some Pride of Place work on my garden. I have also talked to my family about saving as a group so we can move into a bigger, newer house because our house is very crowded.

Taking these steps with my family has increased my self-confidence a lot and also given me the confidence to take over the care of my nephew. I was able to do this because I am now feeling that I can provide him with a happy and safe environment with all the house hold items and care and attention that he needs."

# Case study 10

Source: FRC, 2011e, p. 53

"At the commencement of Active Family Pathways (AFP) in November 2010, a client with a significant number of Education Queensland notifications was offered the opportunity to participate. The client had many children in her care and the Commissioners could see that although she was trying very hard as a parent, she was struggling to get the children to school on a consistent basis.

The client had been to conference a number of times previously and had agreed to be conditionally income managed. Due to the personal initiative and determination she had shown, the Commissioners were convinced that with the right support she would commit to actively improving the quality of life for her children.

Upon the client agreeing to engage with the AFP Support Officer she was determined to gain the most out of the opportunity and attended all the meetings full of enthusiasm and ready for action. In the

first six months she was able to increase the school attendance of most of the children through practical efforts such as travelling with them on the bus and staying in the school for some of the morning classes. She praised the children for their good attendance and behaviour and communicated with the teachers about the children and their needs.

The client utilised the support of the AFP Support Officer to commence the complex process of boarding school and ABSTUDY applications for one of the children with the assistance of the Transition Support Service Community Support Officers. The AFP Support Officer arranged meetings between the client and the Department of Communities (Housing and Homelessness Services) to develop a plan to repay rental arrears and she has, as a direct result of this assistance, substantially reduced the overdue amount over the last six months. As the client still has a number of goals that she would like to work on, she has been scheduled to attend conference to gain another six months of the AFP. The client has expressed her gratitude to the Commissioners for including her in the AFP and is keen to move forward in the next six months with more goals such as gaining employment skills."

#### Case study 11

Source: FRC, 2011e, p. 62

"I had been before the Commissioners previously but when I started being called up every second week I was worried that I was in real trouble. It was not like that, the Commissioners were really worried why some of the children in my care were attending school and some were never attending. Each time we talked about the reasons why some were not going to school and what I could do at home that could change things for the better.

I started getting uniforms ready the day before and made all the children go to bed at the same time so none of them would be tired for school the next day. After we got that organised, I started walking to school with the children and then going to class for a little while. The children were embarrassed at first but then they all wanted me in their class so they could show me how good they were.

The Commissioners listened closely to what I said, asked me questions and then gave me ideas. One of the Commissioners who lives nearby would walk with me and the children in the morning when she was going into town to do her job. This also gave us a chance to talk outside of the Commission sittings. With the checking every second week, we could make changes when things weren't working or one child did not want to do it. The Commissioners gave me help and advice like an aunty, sometimes a little tough, but always thinking about the best result for the children."

#### Case study 12

Source: FRC, 2011e, p. 85

"You'll never believe what I've just seen! Come and have a look.' All present rushed to the window of the conference room that overlooks the footpath leading to the school gate. A father was walking his child to school. Some would not consider that an unusual sight in itself, so why the fuss?

For many years this father had neglected his family. He had a long history of alcohol abuse and violence. He had been the subject of numerous Magistrates Court notifications and Education Queensland notifications to the Commission over a period of only 13 months, and had been in and out of custody over the last couple of years. It also looked like the child would follow in his father's footsteps having recently been identified as one of a number of youths who had been responsible for

acts of vandalism. To resolve the issue relating to the damage caused by their actions the children and their parents received a written invitation to attend a meeting with the Queensland Police Service, Local Commissioners, Justice Group and the Council. Eight of the children came with at least one parent to the meeting.

Each of the families met in private with the Local Commissioners and other parties, and then met collectively to discuss responsible behaviours and appropriate actions to rectify the damage done to assets and the community. The consequences of their actions were brought home to them by the Local Commissioners explaining that the community bus and building provided support to many Elders who could have easily been hit in the head with a rock, or lost valuable transport and medical care provided by the community bus.

Over the following weeks the Local Commissioners and parents met often and taught the children the meaning of respect for their Elders. The parents were encouraged to become more involved in their children's lives and to become role models for their children. Commissioner Glasgow and the Local Commissioners also worked with the parents to increase the children's attendance at school. Gradually the behaviour and attendance of the children began to improve. Education Queensland was very pleased to advise the Local Commissioners at their last meeting that the children's behaviour and attendance at school had greatly improved.

The father looked at his own life in these meetings. He had refused for two years to attend a Commission conference and subsequently in February 2011 he came for the first time and asked for help to become the parent he wanted to be for his children. He agreed to attend the Ending Family Violence Program, set up a budget that would help to ensure there was always food for the children and agreed to help with getting his child to school. He had decided to take responsibility for himself and his child.

During the next month he attended the Ending Family Violence Program and commenced walking his child to school most days. He later told the Local Commissioners he would sit for a time in the classroom to make sure the child was settled and then leave and go home. He is now seeing and feeling the difference in his home life and the attitude of others towards him. He has taken the next step and is looking for fulltime work with a positive attitude.

The child's mother was also the subject of School Attendance notifications and a number of Magistrates Court notifications over the past year. Her attitude to the Commission is also changing as she sees the changes in her family. She has become more truthful and forthcoming at conferences. The Commissioners feel her improved attitude is in part due to her partner stepping up and helping her. She can see that he is trying to improve the family's day to day living. The day the father looked at his own life, and resolved to take responsibility for his child and his family life, he became a parent."

#### Case study 13

Source: Ford, 2012, pp. 26-27

"One young woman, who has been 'conferenced' by the Commission 28 times since August 2008, fails to show. She belongs to one of roughly 40 severely dysfunctional families in the town, Glasgow tells me, whom the Commission chases around and around to little effect. Together these comprise about a quarter of Aurukun's population.

Present at the conference to discuss the woman's case are two child-safety officers—women in their late 20s, one with piercings—and the school truancy officer. D is a young Aurukun woman in serious trouble. A chronic drinker, she has left three children to fend for themselves. The eldest, a boy of 11, has attached himself to another safer, more functional household; her second child, little Dap, aged somewhere between six and eight, has tried to follow his brother, but the adoptive household can't handle any more children. Little Dap hangs about town, unsupervised and filthy, presently with a broken arm in a cast that's split and ragged and no longer doing its job. The youngest child also wanders where he pleases.

D is being 'income managed' at the maximum rate available to the FRC, and I hear someone mutter in the conference room that 'she'll be income managed for the rest of her life.' Commissioner Woolla, whose husband was recently elected Aurukun's Mayor, forthrightly shares her thoughts. 'I see D drunk all over town, every week,' she says, shaking her head. 'And I wonder where Little Dap is. He's never with her.' The school truancy officer, a young, urbane white graduate, equipped with a list of hardcore absentees from the school, says he too has 'lost count of the time's I've seen D out of it'. Days later, in the FRC's Cairns office, I read a dossier on D, roughly 120 typed A4 pages, which account for just over seven months of caseworkers' school day visits to her house. It makes for bleak reading.

- Mother tells me that Little Dap is stubborn. She can't get him to school.
- Mother tells me to: 'Fuck off, you white motherfucker!'
- Little Dap is ill with scabies. I encourage mother to take him to the Clinic.
- All were drunk and fighting at the house. It wasn't safe.
- Found kids playing in front yard. Mother asleep. It is 11.30am.
- Mother says she is doing her best, but Little Dap runs wild and is influenced by older boys.
- Mother said she really needs Little Dap's father to help out. Encouraged her to find and speak with him, otherwise Little Dap will grow up without an education.
- Encouraged mother to get Little Dap to school, if just for the breakfast, so then he won't go hungry.
- Mother yells at me, 'Fuck off, I am pissed.'

I ask Glasgow how, knowing these things about Little Dap and his brothers, he and his well-funded commission can have allowed such abuse to continue? Why meticulously document the neglect, if not to act on it? 'Because there are *thresholds* of abuse,' he answers steadily. 'In Little Dap and his brothers' case, it isn't deemed severe enough to warrant intervention, or their removal.'

Indeed, in the Aurukun meeting with the Commissioners, the truancy officer and the two child-welfare workers, there is some good news. D's oldest boy, now residing with a relative of one of the sitting commissioners, has gone from zero attendance under his mother's neglect to 100%. He is said to be 'deeply into school now' and 'well behaved, attentive, intelligent'. 'I'm amazed at his progress', the young officer says. Glasgow touches the arm of commissioner Woolla on hearing this. He congratulates her on the goodness of her relative, who is helping the boy find his feet again..."

# Case study 14

Source: Ford, 2012, p. 28

"The next client to appear is M... M appears this day with arms tightly folded, a severe frown on her brow and headphones plugged into one ear for the duration of her conference. Her matters before the

Commission are a liquor offence and a child-safety notification. M's partner is in prison. She is accused of punching her daughter in the face with enough force to open a cut under the girl's left eye, which had then swollen shut.

As tends to be the case in Aurukun, Glasgow takes a back seat in the proceedings. The female commissioners, led by Woolla, speak with startling directness to M in Wik-Mungkan—the town's fierce-sounding lingua franca. They emphasise their messages with finger-pointing and the drumming of a pen on the table. There's a smattering of English thrown in—'child protection' is repeated throughout, like a threatening incantation—and M responds to the women's questioning by gesturing to her own eye, indicating where her fist opened up her daughter's face. M, explaining herself to her elders, uses gestures to describe her parental modus operandi: a big back-swing of an arm demonstrates how she walloped the child; the blurred windmill roll of her hands shows how the child's body responded to it—a 'somersault', she stresses in English.

Once Woolla is done chastising her and has committed M to income management until October 2013, Glasgow who understands some Wik, adds his two cents. 'I heard you say that you had the right to discipline your daughter, but these days you can't do that with your fists. Things have changed. Children have rights, M, in the way that they might not have had when you were growing up.' M stares blankly at the table, then offers up another defence in Wik. Glasgow interrupts tersely. 'You have rights to discipline your children, but *not* with your fists.'

As M leaves, he packs up her dossier with cathartic brusqueness—snapping it back into a filing system kept in a zippered suit case in the corner of the room—and looks around, clenching his jaw. 'She didn't want to hear the news on *that*'."

# Case study 15

Source: Ford, 2012, p. 30

"S [is] a painfully thin yet heavily pregnant young woman whose dimmed gaze suggests she's not quite reachable. She's accompanied by a case manager, who helps to elaborate on the detailed court documents before the commissioners. S, the commission is told, is a victim of extremely serious assaults by her partner who, as a consequence, is now on remand. S is to be referred to a parenting program, and counselling services for alcohol abuse and budgeting. She is facing a difficult birth, requiring specialist care. The domestic assaults on S have included spitting, threats of murder, punches to the face that rendered her jaw unworkable because of swelling, a machete blow to the back of the head that caused a 7-centimetre laceration, and boiling tea thrown into her face. All while she was pregnant.

The mood in the conference room sharpens. The commissioners and the coordinator deal with S delicately and efficiently, as if to spare her further pain. Glasgow says to her that with the father of her child facing considerable jail time she will be freed of his violence. She nods without emotion. She confirms to the commissioners that the relationship is over, but there is no discussion of what it might mean to be a woman carrying a child whose father has tried to kill her. Nor is it clear that such a woman would make use of the psychologists the commissioners refer her to.

Glasgow later articulates, more generally, the uncertainty surrounding S's case, when he says that while he's confident of the FRC's successes—school attendance and marks, for instance, show signs of improvement in all four towns—his 'only disappointment is the service delivery to the people.' He

hopes that 'there might be a concerted, uncompromising push in the Wellbeing Centre's work to insist on change. And that assaulting women is no longer going to wash."

#### Case study 16

Source: Ford, 2012, p. 33

"The first clients, a middle-aged couple who have 'grown up' three children not their own... consider the matter they've been called up for to be none of the Commission's business. One of their informally adopted children has recently, at 14 years old, been fitted with a subcutaneous contraceptive in her arm. It happened without their knowledge, by consent of the biological mother, who otherwise has little to do with the child.

Because the girl is underage and sexually active, the hospital, under mandatory-reporting orders, has filed a child safety report, bringing the *adoptive* parents before the commission. The father barely restrains his rage at what he sees as 'departmental interference'. The two commissioners attempt to placate him, but pressing and valid matters have been raised that neither can satisfactorily answer..."

#### Case study 17

Source: von Sturmer and Le Marseny, 2012, p. 12

"In the three years previously, the respondent had been to a number of FRC conferences for child related matters, had been put on a CIM order, and had her children removed by the police and Child Safety Services to the safe house within the community pending final assessment of the situation. If the final assessment had been negative the children would have been removed from the community and placed with alternate carers. At this point she said: 'I was desperate to avoid losing my children, I went and saw them every day at the safe house at 9:00am and worked really hard.

The FRC helped prevent the children being taken from me, by helping me to know what to do. I had to fly down to Cairns and go to the court, and I had only 28 days to tell the magistrate that I was a good parent'. It was a very complex and confronting situation for a person with limited education and no knowledge of the judicial system: 'I would not have been able to do this by myself, the FRC helped me to do this, and told me what else I had to do, and I got my children back.

I had to do a parenting course here in Aurukun. I graduated about two months ago and I had lots of other work to do, too, I had to go onto the BasicsCard to show them there would be money for the children, and that I would pay my rent and everything. Now my kids are good and I am happy. Life now is a little bit OK. I still go to the clinic and talk to others and get support. I am going to write a letter to the FRC and tell them what a good job they do, and they are helping the community'."

#### Case study 18

Source: von Sturmer and Le Marseny, 2012, pp. 10–11

"The respondent says that the close relationship between her and two of the FRC commissioners was problematic at times when she was first required to attend the FRC conferences, even though when these situations arise, any commissioner directly related to any client is excluded from participating in that sitting.

She said that 'it used to freak me out to have my close family as FRC commissioners even if I was not dealing with them directly'. Later though, she said that she was able to talk to both of them at family gatherings about the situation 'and everyone was OK about it'.

In today's FRC conference both family members were participating in the conference as FRC Commissioners and there was no perceived conflict of interest as the respondent's attendance was voluntary and there would be no decisions made in the sitting. The sitting was only to discuss her transition from being involuntarily on the BasicsCard to being a voluntary client (at her request), and she was happy to talk to her brother and sister about this.

After being placed on the BasicsCard she was motivated to reduce the school absenteeism of her daughter and through a range of reward strategies that were negotiated between parent and child and with the assistance of the school attendance officers and the FRC Commissioners, the absenteeism was reduced to an acceptable level within six months and then over the following six month period brought within Education Queensland guidelines.

Due to the acceptable school attendance record over the preceding 12 months, her case plan with the FRC was coming to an end, and the BasicsCard was to be withdrawn at the end of the fixed 12 month period so she was asked to attend the FRC hearing to discuss her transition off the BasicsCard with the FRC commissioners.

She spoke openly about the antagonism she felt towards the FRC and the commissioners when she first had to come to the commission hearing, and that she refused to do what was asked of her, principally because she did not want to be told what to do. She claims not to feel any hostility towards the FRC now, and stated that she feels the FRC 'really helped her when she needed it' and that she felt the FRC 'was doing a good job in the community'. She believed that the majority of the community held a similar view of the FRC.

In the later part of the interview she spoke a great deal about the BasicsCard, how initially she was angry at being made to have the card, but how she had quickly adapted to using the card. It helped her to manage her money and to save for significant household items. She said that because of the BasicsCard she had been able to purchase several large household items, including a fridge, washing machine and lounge suite.

The respondent had told the FRC in the conference that she wanted to keep the BasicsCard and had asked to be placed on the Card on a voluntary basis because it made managing her money and her life easier. She had also asked that the FRC 'not tell anyone in the community' that she was on the BasicsCard on a voluntary basis otherwise she would be humbugged for money."

#### Case study 19

Source: FRC, 2012e, p. 43

"Sometimes it is hard to be honest, to face up to what we have done. Sometimes we can do the wrong thing, but only see it from our point of view and think we are right.

I was very mad and angry at the Local Commissioners when I received a notice to attend conference. I was told my partner and mother-in-law were asked to be there as well. I did not want to discuss private matters with these Local Commissioners. Some are family members, some are from traditionally opposing families, and then there are a few outsiders like the big Commissioner.

I was pretty sure I knew what they wanted to talk about. I told my partner and her mother to go in the morning and tell the Local Commissioners I was on a training course. My partner came home and said the Local Commissioners would wait until I had finished the course, that they would wait all day for me and the next day if needed. It made me even angrier to think that they thought their time was more important than mine.

Grabbing the baby, we walked to the Commission building. Once we were inside I began telling them what I thought. Immediately they said to be quiet, sit down and listen, or go away and come back later when I was prepared to talk calmly. The yelling was not going to intimidate them. I decided to sit and listen.

The Local Commissioners asked my partner if I had hit her hard in the stomach while she was nursing the baby. She looked at me to answer the question, but they wanted her to answer instead. I was shamed when she said yes, and then she said I did it other times as well. Her mother came to our defence and said we had a good relationship and it did not happen often. The Local Commissioners said they knew what went on; they knew I lost my temper and that I was a hothead. They looked me in the eye and said I didn't have the right to hit her. Then they told my partner she did not deserve to have it happen to her, no matter what I said.

There was some silence in the room whilst the words settled. They asked me what I liked about being a father, what I thought my job as a father was and what type of father I might be when my child is 10 years old. I had never thought about this. It was difficult. They then asked if I would want my child to be beaten like I hit my partner when she was grown up and in a relationship. I asked what I could do to make myself a better father and partner.

Since that day I have tried to make myself better. I attended the Alcohol, Tobacco and Other Drugs Service (ATODs) programme and still go when I need to. I went to the Wellbeing Centre to do some anger control programs and to understand why I get frustrated and angry. Most of all I have stopped drinking grog. This was and remains the hardest thing I have ever done. My friends and family don't understand, but my partner and child are much happier. We hardly fight at all because I am more in control and there are no more money troubles caused by the grog. My partner also stopped drinking grog. We go to the homelands, fishing and hunting instead of staying in town with the drinking.

We have gone back to the Local Commissioners a few more times and although they have to address the issues, they always praise me and tell me I am a good father for giving up the drinking. We leave there with a bit more confidence each time, determined only to return to let the Local Commissioners know how well we are doing—no more issues or problems for our family. Sometimes it is hard to be honest and face up to what you are doing wrong, but it has paid off for my family."

#### Case study 20

Source: FRC, 2012e, p. 73

"I thought school was only for brainy kids. When I went to school I was always bored because most of the time I did not understand what they were talking about. I just sat there trying to keep still because if you move around too much the teacher does something that brings you to the attention of others. I don't like getting attention and there is shame in being singled out. It was better not to go to school, so my brother and I would watch TV, or go down to the beach and hide in the scrub. We weren't the only ones, sometimes there were five of us, sometimes ten.

My mother always says she has lots going on and that she is busy. She has to make visits to other communities and there is always lots of family business that she has to help with that I don't understand. My dad lives with us some of the time and my sister is at boarding school. Sometimes we never had any adults around the house to tell us what to do. We have heaps of aunties and uncles in town and some of them give us a telling off about not going to school, but they always let us come over for a feed at night.

I think it was last year that our mother had to go to see the Commissioners at the FRC because I only went to school 9 days out of 48 school days. The Commissioners were unhappy with our mother about leaving us in the house and going away. They told her that as children we needed to be supervised and were not to be left alone, and she also needed to do more to get us to go to school. When she came home she was upset and told us we needed to go to school or she would end up with the BasicsCard. We didn't take it very seriously and just kept going down to the beach. The Commissioners kept making her come back and talk to them and they got her to agree to see some people and talk about us and the family. This went on for some time, and when we still didn't go to school, mum was given the BasicsCard.

After the BasicsCard, our mother started talking to us about school and asking us why we did not want to go. She had some meetings with the teachers and then talked to us about giving school a chance. She said that there was a different way of teaching happening at the school and the teachers would give us more attention, but in a good way, not making us look silly because we did not know how to do our work. We started going there more and more each week.

It was hard, and I felt dumb sometimes, but the teacher would come over and talk in a quiet voice. Our mother was staying home a lot more. She did not like the BasicsCard in the beginning, but then she liked having money for groceries for dinner every night and she did not have any cash to give family members when they came around asking for money. We didn't have to go to our aunties for food.

One Sunday I was in church and picked up the Bible, and then got a big surprise to find out that I could read most of the words in the Bible. I showed my mum the words I could read and she was very proud of me. Our dad has also began [sic.] to tell us to go to school, and he told me how proud he was of both of us.

Things were going well until mum had to go away again. At the same time my sister got kicked out of boarding school. This time though mum had talked to our aunty and she came to live with us. She was much harder than mum. She made us do homework every night and we had to clean up all the time. We were so glad when mum came home.

We kept going to school and my brother told mum it was to keep away from aunty, but the truth was we liked going to school. My teacher tells me I am one of the best students and that I am setting an example to the others. I have improved in my reading and writing and I am learning sums now. I know my attendance is very good because last time the Commissioners spoke to mum they said I am one of the best attenders, I only missed 5 days out of 44 in the term and some were half days to go to the clinic.

When I am at school I get to ask questions and show I am smart. Mum and dad are getting better at listening and talking to me. Our mum still goes away but usually not for very long. She still needs to get better with some things, but even she says our home is much better and we are all a lot smarter. As

a family we now know how important school is, and that you don't have to be brainy to go to school, but you have to go to school to become brainy."

#### Case study 21

Source: FRC, 2012e, p. 80

"When the Commission first came to our community we all thought it was going to be just another person coming into community telling us what to do. Some of us already knew Commissioner Glasgow from court, but we did not understand why we should have to answer to him about our children and our day to day living. We then found out some of our aunties and uncles were now Local Commissioners and unlike in the Murri Court, they were equal decision makers. We did not think this could be true and believed that they were just token names on a committee.

Sure enough, my children missed some school and I was called up to the Commission. I was ready to tell these aunties and uncles that I thought they were showing off and trying to be better than the rest of us. I knew some of them had a past, and all of them had children and grandchildren that had not always been number one community members. When I got there it was not at all what I had expected. The Local Commissioners asked me questions and offered assistance. They seemed to understand the problems and also what it was like to deal with outsiders and filling in forms. They spoke to me in language and then spoke to Commissioner Glasgow in English, leaving out some of the really personal stuff.

I saw and heard the nasty things people said to them, the different words and actions to discourage them and make them resign. The Local Commissioners started attending meetings, having dignitaries and government people visit them. We also found out they got paid to say what they thought and to give recommendations. I knew they received training and information, and sometimes got to travel to Cairns and Brisbane. Like many other community members I was jealous and thought they were getting to think they were better than the rest of us.

One day I attended conference again about school attendance. I told the Local Commissioners that it was okay for them because they had more money and personal possessions than I had. They challenged me and told me to try to do something for myself and not to be so negative because they worked hard for what they had. They pointed out to me the abuse and negative things that people had said over the years, and that these people had not stopped them from achieving what they had achieved, and continued to achieve. They remembered I had been a good student, that I was a good mother most of the time and asked me why I did not have a job. At first I was very mad at them and then I thought why am I mad at them? I was the one missing out.

I applied for a part-time job and could not believe it when they said I could start straight away. I was so happy I told everyone. It was then the wall of words came. The words were so negative and so cruel. The words were like a wall stopping me from taking the job. It was easier to say no to the job, and then everyone would know I was not trying to be different than they were. I spoke with my partner and children, and to my surprise they encouraged me to take the job. 'Look at some of your family who are Local Commissioners. They are strong, learning new things and understand both our culture and the outside culture. They work well in both worlds. Why can't you?'

I now work part-time and I am learning more and more each day. I have travelled by myself to the bottom of Queensland and stayed in hotels. I go to training and meetings, and people listen to me. They listen to me when I talk about Indigenous or community issues, and also about all things relating

to my job. I am learning computer skills and can now email. I am more motivated to help the children with school work and my extra cash helps pay for fresh groceries.

Sometimes I still get the negative words, but I feel the wall has been cut down to a small fence. Just like the Local Commissioners told me, I say to others, 'Well you could do better than me. Get a fulltime job.' That usually makes them quiet and thoughtful.

It is a juggle getting the children to school now that I work. I have been back to the Local Commissioners about this. We talk about ways to get into a routine and they tell me what they do with their grandchildren. We are all working people talking at the same level. I also see the Local Commissioners at meetings. I see how they listen and then speak confidently and with consideration to the long term future of our community. They are polite and respectful of others, even those that are here for a short time and tell us they are going to 'fix' everything. The Local Commissioners tell them what we really need and how it should operate, not just what they want to hear.

I hope one day when I am an older woman with traditional respect, that my courage and job skills will make me a Local Commissioner. I want to be a strong and smart woman doing the best for my children, family, clan and community."

# Case study 22

Source: FRC, 2013e, p. 21

"When he first started coming to the community we thought if we give him a hard time and told him he was not welcome, he would go away and never come back. Most of them do. The fly in and fly out, they tell us they are going to fix everything, that they have the best idea ever and then they stop coming. He didn't tell us he was going to fix anything. He told us we had to fix it ourselves with help from the Commissioners and the service providers.

We now know he is a man of his word and he has stuck by us. Commissioner Glasgow works with us to fix the problems, and he comes to us every fortnight. When he finds something not working he tries to get it sorted. He is not afraid of the Government or the service providers, and he is not afraid of the clients. I have heard the stories. He has been threatened by people with weapons, people trying to punch him and the dirty mouths throwing words at him, but he keeps coming back.

I first met him when my children did not go to school. They were finding school hard. They would get bored and they were also teased. I have boys and girls, big kids old enough for boarding school and little kids in primary school. Commissioner Glasgow sat with the Commissioners and pulled out papers about my children and school attendance and court appearances. With his big, strong voice he said my children were running around the community and missing out on school because of my drinking. Then he changed to a soft voice and asked if there were reasons why.

The Local Commissioners helped me to explain the reasons. My partner and I don't look after the children when we drink, and are sometimes violent around them. We had a visit from Child Safety Services because our children had bad teeth. This came up at my next conference with the Commissioners. They all growled at me and said looking after teeth was very important. I went to the clinic and found out what to do.

For the next few years it was back and forth with the Commission, the school, Transition Support Services and for my court appearances for grog. Just when I got one child attending school, another would drop out or refuse to attend. The little ones got bigger and thought they could do the same as the big ones and would disobey me. I kept drinking and bringing grog into the community.

I got to know Commissioner Glasgow over this time. He has boys and girls, and he told me lots of stories about getting his kids to school. Even a man as powerful as him had some hard times with his children. I know sometimes he was disappointed in me, like the day I turned up really drunk to a conference, but he always showed his concern and listened. He is like the Local Commissioners now. He is a wise man, but not a know it all.

I decided I was better when I did not have a man in the house, so I am single now. I have a Student Education Trust account and my big boy is in boarding school in Townsville. My little ones are attending school and their attendance is around 90 per cent when it was 20 per cent in past years.

I have asked to come off the BasicsCard because I am now a good parent. I thank Commissioner Glasgow and the Local Commissioners because they have stuck by me, and now I will stick by them and make sure my promises are kept. More people now know that the Commissioners are here to help the people. I heard on the news the Government think they are doing a good job because they are going to extend and give them more money. I would like to see other Government agencies and referral agencies work alongside the people in the community the way the FRC does."

# Case study 23

Source: FRC, 2013e, p. 35

"She is of my blood. I am her Aunty. The Local Commissioners are all her Aunty or Uncle. The Anglo chronology would be my cousin's daughter but she is my daughter. When we commenced our long journey as Local Commissioners over four years ago, I immediately thought of her. She would be one that we would help.

She was going nowhere fast and I thought after a few short conferences she would take all the opportunities offered in the Cape York Welfare Reform trial. She was in trouble from an early age. One minute she was a lively 10 year old running around the neighbourhood with my daughters and nieces. The biggest decision of the school holidays was finding which Aunty had cooked the best dinner and they would all converge for the meal, filling the house with laughter, pigtails and big appetites. In almost the flick of a horse's tail she was dropping out of boarding school, running with older boys, drinking, swearing and swaggering around the community with an attitude. Soon she was pregnant, with no work possibilities and very mad at the world and the opportunities that would never be hers.

We all knew she would be a client of ours in the first year of operation. A quick succession of children were born into this dysfunctional household. They rarely attended school, all had behavioural problems, kicking and screaming at discipline and unable to sit still. Child Safety Services started to visit the house on a regular basis. The volatility of the relationship fuelled by grog and gunja [sic.] provided the perfect storm of anger and pity, pitching the young children into a merry-go-round of uncertainty. When the first notices came through from Education Queensland and Child Safety Services, we said to bring her in.

The Local Coordinator tried to serve her the notice to attend. The language was unrepeatable. At the next family event she used even more severe language on us, her Aunties and Uncles. She was very mad at us. She would not attend, she would not talk to us and, finally we placed the Income

Management order on her. We knew we would face the wrath when she did attend. It was horrible. Here was a woman, the child we had all loved, now a mean and nasty adult who deep down we still loved, but we did not like her anymore. She refused our advice. She told us to go away and mind our own business.

At night I would reflect on my own upbringing and how my Elders would have dealt with this situation. I took guidance from that, knowing that it would work as I was the product of that upbringing. Maybe she had some of the same thoughts because she turned up at the next conference. It was tough talking, and some of the words from the Elders came to me and I passed them on. The change in her was slow; it stopped and started. We were there all the way over years, not just days and weeks.

Her relationship is on and off, but her parenting is good most of the time now that the grog and gunja [sic.] is away from the children. The notices are reducing, but we still see her regularly. The conversations even include achievements of the children in sport and school attendance. She is not perfect, but she is persevering and trying her hardest. This is what we ask.

As Local Commissioners we get asked what we have done to change behaviours and make our clients more socially responsible. What we have done is we have given them permission to change. Some are held back by knowing no other behaviour, whilst some are confined by their peers or have so much anger and angst they are inert. We are here, be it for good or bad. Sometimes we are the excuse to change—'the Commissioners said I must', sometimes it might be to prove us wrong, and other times we just show the love is still there even though the pigtails have gone. She is our blood, we love her, and now she is able to love her children."

# Case study 24

Source: FRC, 2013e, p. 57

"In February 2013 the Commission commenced a Memorandum of Understanding with the Department of Aboriginal and Torres Strait Islander and Multicultural Affairs to deliver the Ending Family Violence (EFV) programme in the four CYWR trial communities. QCS provided the programme to the Commission and supported the training of staff.

The EFV programme focuses on attendees discussing the personal barriers and social challenges that contribute to violence, especially relating to family members. The three-day programme is tailored to each community and is supported by the Commissioners, community and employers. A recent participant tells his story...

'I have two little girls. They came along quickly after I got together with my partner. We have another on the way and I hope it is a boy this time. For many years I was not a good father, partner or role model to my children. I would get very angry and just want to hit something. Sometimes it was my partner, sometimes it was the wall and sometimes I picked fights with other blokes knowing I could never win.

I knew my behaviour was causing my partner to be upset with me all the time. She threatened to leave and take the girls, but this just made me angrier and we would start all over again with yelling and fighting. When I felt the new baby in her belly I thought I have to change. I will be a father of three and I want all three to be smart and go to school and get jobs. I know they need a good home to do this.

I talked to the Commissioners at the next conference I attended. They said if I want to change I need to work hard and a good start would be the Ending Family Violence program. I agreed to turn up the next time it was held in the community. I was a bit quiet in the beginning even though they wanted me to talk a lot, but I quickly began to enjoy it. We discussed family and told stories about ourselves, our past and long ago. I thought it would be really negative, but it was positive talk about what I value, what is important to me and how I make decisions every day that impact on my family. I encouraged the other attendees to tell their stories and kept asking questions. I was not made to feel bad or stupid and I learnt that I need to take responsibility for my actions, not to blame others.

I am a better man, a better partner and a better father now. I think first and act later, not the other way around. I still get mad and yell sometimes, but most of the time I calm down and think of what I can do to make things better not worse. My new baby will come home to a happy home now and my little girls will not be worried to laugh out loud and play noisy games because I will be laughing and playing with them, not yelling at them to stop. The programme helped me see a different way to act and now my whole family is happier."

#### Case study 25

Source: FRC, 2013e, p. 68

"When I was growing up I thought that everyone had a happy ever after ending. I thought I would have one too. Life is not like that though, once things start happening, and people are not always what they should be, or do what they should do.

I don't have a happy ever after story to tell. I don't remember a time when there was not some grandchildren living with me. I don't remember a time when I didn't drink to help me cope and get some comfort in life. I do remember feeling like it was all falling apart, and that I had failed as a grandparent.

In 2008 I started going to the Commission. The Commissioners were full on. They told me they had received reports from agencies like Child Safety Services and Education Queensland, and they knew the details of the reports. I was upset and could not understand why it was their business. They talked to me about attending services in our community so I tried different services. Some were good and some were not so good, depending on the staff and how I was feeling.

Although I was annoyed at the Commissioners for knowing my business I kept going back to them, in the beginning because I had to, but later because I wanted to. Sometimes we argued and sometimes I agreed with them, but most of the time we just talked. They know me; they know that I have all the grandchildren and the reasons behind it. Things got very bad a few years ago. I had been going to the Wellbeing Centre and worked with Child Safety Services to set up a plan. If I was going to have a weekend with grog, we made sure the grandchildren were with relatives and out of the way. I made sure I was out of community. The grandchildren had good school attendance, even winning weekly prizes. I had signed up to Pride of Place and Student Education Trusts, and the yard now had shelter from the hot sun with a gazebo.

Out of the blue a very close relative died. I was so upset that nothing made sense, the days stopped having names and the nights were so lonely. Only the grog would fill the hole. I could see the grandchildren falling away, not going to school, hungry and dirty, but I could not move.

One of the Commissioners came to see me at home and asked me to come to the next conference. She said everyone was very worried about me and now Child Safety Services were concerned I was not sticking to my plan. I told her I did not care, but still I attended the conference. I had not spoken about the passing to anyone, but looking at the Commissioners I knew it was time.

I am sure I stayed much longer than my allocated time, but nobody hurried me, they just listened. We all cried just a little and they felt my pain. At the end we discussed how important the grandchildren are, and that I must look after them as my relative would have wanted. I agreed to go back to the Wellbeing Centre and asked for the BasicsCard.

The BasicsCard made an immediate difference because food became my main expense not grog. The grandchildren quickly saw the results and hugged and kissed me because I was with them now, not away in alcohol dreams. I kept talking about my sorrow to the Wellbeing Centre lady counsellor and the days started to brighten. We set up a meeting with the Child Safety Service officers and explained what had happened and how I was getting better. To my surprise they were very understanding and offered to help with some respite care over the school holidays.

One of my grandchildren is going to boarding school next year, and they are helping both me and my granddaughter prepare for that. We are not happy ever after, but most of the time we are pretty good. The grandchildren go to school every day, I keep the home clean, and I help out at the school when they need. I don't drink much anymore and prefer to go out to country on the weekends fishing, swimming and telling stories with my children and grandchildren. I still get sad, but it passes when I think of the hugs and kisses from my grandchildren and the future they will have."

#### Case study 26

Source: Karvelas in FRC, 2014e, p. 20

"Mossman Gorge single mother [client name] has two children and says the Family Responsibilities Commission and income management has transformed her family's lives. Ms [client surname] is now no longer on income management. She says she has taken control of her life and has spent the past year ensuring her 12-year-old son, [son's name], has gone to school consistently. She said her bank account used always to be overdrawn and attracted lots of fees. She had also established a Student Education Trust for [son's name], boosted by regular payments.

'I've got my son attending school every day: he has only missed nine days the entire year.', Ms [client's surname] said. 'I've done everything to make sure my children have better health and a better education. I knew that I had to improve my lifestyle and make sure that my children were well looked-after, and make sure that as a single mum I was looking after myself too.' Ms [client's surname] said having her income managed helped her to spend a lot more money on her children. She said that, although she was a stay-at-home mother to six-month-old daughter [daughter's name], she planned to work in tourism when her children were older..."

#### Case study 27

Source: Dav'ange Consulting, 2018, p. 25

"Commissioner [name] went on to explain how she worked with a mother, through the FRC to get her children back in school. The mother suffered from depression and she abused alcohol and drugs.

The FRC made a number of referrals to services such as the alcohol and other drugs counsellor and Wellbeing Centre. The children completed grade 12 and the mother is now helping her sister to improve the school attendance of her children."

# Appendix 3—Statistical appendix

#### 3.1 Methodology

#### 3.1.1 Data

# 3.1.1.1 Offence data

Publicly available reported offence data was obtained from Queensland Government data online.<sup>1</sup> Monthly reported offence rates per 100,000 persons from January 2001 to March 2018 were obtained for the police divisions of Aurukun, Coen, and Hope Vale. Reliable offence data was not available for Mossman Gorge.<sup>2</sup>

Corresponding data were also obtained for the comparison divisions of Bamaga, Cherbourg, Doomadgee, Kowanyama, Lockhart River, Mornington Island, Palm Island, Pormpuraaw, Weipa, Woorabinda, Wujal Wujal, and Yarrabah. These divisions were chosen as they corresponded to Queensland indigenous communities.

Data was disaggregated by the following offence types:

- Assault
- Breach domestic violence protection order
- Drink driving
- Drug offences
- Liquor (excluding drunkenness) offences
- Good order offences
- Offences against property
- Offences against the person
- Public nuisance
- Sexual offences
- Traffic and related offences

#### 3.1.1.2 Education data

Publicly available school attendance data was obtained for all schools in indigenous communities, from <u>Queensland Government data</u>.<sup>3,4</sup> Data was available at the school level<sup>5</sup>, from 2013 to 2017, reported as annual attendance percentages.

<sup>&</sup>lt;sup>1</sup> https://data.qld.gov.au/dataset/offence-rates-police-divisions-monthly-from-july-2001

<sup>&</sup>lt;sup>2</sup> Police divisions do not have 100% spatial correspondence with indigenous communities, and are at times significantly larger than the included community. For Mossman Gorge, the population of the indigenous community was disproportionately smaller than the corresponding division, so was excluded from the analyses.

https://data.qld.gov.au/dataset/state-school-attendance-rate/resource/f8ceabd3-d61c-4714-87de-0bc9254e7c08

<sup>&</sup>lt;sup>4</sup> The methodology for calculating the attendance percentage changed at the end of 2012 and as such attendance data is no longer comparable with the previous years.

<sup>&</sup>lt;sup>5</sup> This data is reported at school level. Some schools that enrol students from Indigenous communities may have greater levels of enrolments of students from beyond those communities.

## 3.1.1.3 Child safety data

Publicly available data on child safety notification rates was obtained from <u>Queensland Government</u> <u>data</u> and was originally sourced from the FRC<sup>6</sup>. Data was collected for all Cape York indigenous communities, both FRC communities and comparison communities. Data was available at the community level, from 2010 to 2016, reported as annual notification rates.

#### 3.1.1.4 FRC data

De-identified longitudinal data for all FRC clients was made available to the review from the FRC Statistician. Data was available for all clients in Aurukun, Coen, Hope Vale, and Mossman Gorge. This is a rich quantitative dataset that logs repeat events. The key data variables used for analysis were:

- De-identified client ID
- Community
- Period of CYIM
- History of trigger events (breach notifications)
- History of service referrals
- Voluntary status of client
- Age
- Gender

An event history data set was constructed for each client by month, for the period of their relationship with the FRC. Data on the number of CYIM clients were also aggregated to monthly counts.

FRC annual reports contains considerable information on the limitations of the data and data pertaining to extraneous factors that may have influenced the number and nature of notifications received by the FRC.

# 3.1.2 Analyses

For all statistical analyses, a value of 0.05 was used as the threshold for statistical significance. If the p-value of a statistical test was less than this threshold (p<0.05), the result is said to be statistically significant and is marked with an asterisk (\*) in tables.

#### 3.1.2.1 *Graphing*

To assist in visualising any change over time, monthly outcome data for the intervention and comparison communities are presented as time-series graphs, with interruption lines (vertical lines) that indicate the beginning of the intervention and Ordinary Least Squares regression trend lines for the periods before and after the intervention (where appropriate).

<sup>6</sup> https://data.qld.gov.au/dataset/notices-in-jurisdiction/resource/8a69397f-437e-4085-9d0f-8357202f10f8

# 3.1.2.2 Difference-in-difference (pre-post) analyses

Outcome data were first analysed in a series of pre-post difference-in-difference models.<sup>7</sup> These models compare each intervention community to each appropriate comparison group to gain a community-by-community assessment of the overall impact of the intervention.

Difference-in-difference analyses were used to assess whether the change in outcome (if any) in the intervention community after the intervention was significantly different to the change seen in the comparison community in the absence of an intervention.

For each outcome in each intervention and comparison area pair, a measure of change between the average outcomes for the time points before the intervention (pre) and the average outcomes for the time points after the intervention (post) was calculated. Change in the intervention community was statistically compared to change in the non-intervention communities, to establish if there was any significant increase or decrease in the outcomes post-intervention, beyond that seen in the comparison communities. Thus, difference-in-difference analyses assess *relative* change, rather than *absolute* change.

It is important to recognise that difference-in-difference analyses are an omnibus comparison only—that is, these analyses look only at the average levels before and after an intervention, but do not take into account the nuance of whether any relative change was immediate or delayed, or whether there was a lasting impact on the trend in outcomes. These more nuanced comparisons are a feature of interrupted time-series analysis, which is discussed in the next section.

A fundamental assumption of difference-in-difference analyses is that there is no significant difference between the pre-intervention trend in the intervention group and the comparison group. That is, that the trend lines for both groups are parallel prior to the intervention. The difference in pre-intervention trend was evaluated for each outcome in each intervention/comparison group pair. Comparison areas were considered appropriate and retained in the analyses for an outcome only if the pre-intervention trend was *not* significantly different to the pre-intervention trend in the intervention community. Therefore it is important to note that, for these analyses, not all intervention/comparison pairs were evaluated for each outcome.

# 3.1.2.2.1 Data analysed using difference-in-difference analysis

Difference-in-difference analyses were only conducted for offence data and housing data. Child safety and education data were not analysed using this method because data were not available prior to the intervention.

# 3.1.2.3 *Interrupted time-series (trend) analyses*

Monthly offence data were next analysed in a series of interrupted time-series analysis models.<sup>9</sup> Whilst difference-in-difference analyses determine whether there was a significant change in the *average* level of an outcome over and above that seen in the absence of the intervention, it does not

<sup>&</sup>lt;sup>7</sup> Using the *diff* command in Stata 15

<sup>&</sup>lt;sup>8</sup> Using the *itsamatch* command in Stata 15

<sup>&</sup>lt;sup>9</sup> Using the *itsa* command in Stata 15

assess whether there is an *immediate* impact of the intervention, nor whether there is a *change in trend* that may be attributed to the intervention.

Interrupted time-series analyses assess four key aspects of the data over time:

- the estimated level of the outcome at the start of the data series;
- the trend in outcome that is seen *before* the intervention takes place;
- whether there was any significant shift in the outcome *immediately following* the intervention; and
- whether the trend in the outcome *after* the intervention was different to the trend before the intervention.

Each analysis incorporates a one-month lag between the outcomes in adjacent months, in order to account for any immediate temporal autocorrelation, whereby outcomes in one month were correlated with outcomes from the previous month. Finally, the analysis provides a measure of variability or uncertainty around each of the estimates by estimating the standard error of each of the parameters.

Four parameters were estimated in these models:

- (1) The first parameter ( $\beta_0$ ) can be interpreted as the estimated level of the outcome at the start of the data series<sup>10</sup>.
- (2) The second parameter ( $\beta_I$ ) can be interpreted as the average monthly expected change in the outcome *prior* to the intervention. If this parameter is statistically significant it means that before the intervention there was a trend in the data (either increasing or decreasing) that cannot be explained as natural variability of the data around a stable value.
- (3) The third parameter  $(\beta_2)$  can be interpreted as the change in the outcome *immediately* following the intervention. If this parameter is statistically significant it means that there was an immediate change following the intervention.
- (4) The fourth parameter ( $\beta_3$ ) can be interpreted as the difference between the overall trend in the outcome before and after the intervention. If this parameter is statistically significant it means that there was a long-term change following the intervention.

Interrupted time-series analysis was only conducted for outcomes where the data spanned a period before and after the intervention. The interrupted time-series analyses were conducted for each intervention and comparison community separately. Rather than conduct and interpret a series of interrupted time-series analyses where each intervention community is compared to each comparison community separately, the communities were all analysed individually, and the resulting parameter estimates were combined (or pooled) using meta-analysis<sup>11</sup>. This approach has the benefit of providing an overall assessment of the trends in outcomes across the pooled intervention and comparison communities, whilst still demonstrating the impacts for each individual community. Any changes in the parameters of the intervention communities were only attributed to the intervention if there was no corresponding change in the comparison communities. In other words, any changes were only said to be caused by the intervention if there were significantly differences between the

<sup>&</sup>lt;sup>10</sup> Note that, whilst seeming counterintuitive, it is possible for this coefficient to be less than zero, indicating that an area initially had a negative outcome rate. This is because *itsa* is based on OLS regression, and its coefficients are not bounded at zero. A negative coefficient can occur when the trend rises steeply after a very low initial rate. In these instances, the coefficient should be interpreted with caution.

<sup>&</sup>lt;sup>11</sup> Meta-analysis and its interpretation is discussed in further detail in Section 3.1.2.5.

parameters  $\beta_0$  to  $\beta_3$  (above) in the pooled intervention communities and the pooled comparison communities.

# 3.1.2.3.1 Data analysed using interrupted time-series analysis

Interrupted time-series analyses were only conducted on offence data, as this method requires multiple data points both before and after the intervention. Housing data, child safety data, and education data could not be analysed using this method due to either the small number of data points (housing data) or the absence of data prior to the intervention (child safety data and education data).

# 3.1.2.4 *OLS regression (trend) analysis*

OLS regression analysis models the linear relationship between an outcome and an explanatory variable (in this instance, the explanatory variable is time). It provides estimates of the change in outcome over time, along with a measure of variability or uncertainty around the estimate.

Two parameters were estimated in these models: the first ( $\beta_0$ ) can be interpreted as the estimated level of the outcome at the start of the data series; the second ( $\beta_1$ ) can be interpreted as the average annual expected change in the outcome. The standard error was estimated as a measure of variability around each of these parameter estimates.

Regression analyses were conducted for each intervention and comparison community separately, and the resulting parameter estimates were combined using meta-analysis.

# 3.1.2.4.1 Data analysed using regression analysis

OLS regression analyses were conducted on child safety data and education data only. These data were not suitable for interrupted time-series analysis, as no data was available for years prior to the intervention. Therefore, these analyses do not assess whether there was a change in trend following the intervention, but rather, whether the trends seen in recent years in the intervention communities are significantly different to the trends seen in comparison communities.

# 3.1.2.5 *Meta-analyses* (evidence synthesis)

The effect estimates from the interrupted time-series analyses and the regression analyses were combined using random effects meta-analysis. Meta-analysis is a statistical technique used to combine the results of multiple individual analyses, and demonstrate not only the overall effect of an intervention seen in those analyses, but also the level of variability or uncertainty around that effect. It also allows for moderator analyses—that is, it analyses whether the effect is significantly different between groups.

Data were synthesised using a random effects model with inverse variance weighting. A fixed-effect model assumes that the 'true effect' of an intervention would be the same across study sites, and that variation in effects between study sites is due to natural variability or chance. Alternately, a random-effects model assumes that the 'true' intervention effect will differ across study sites because of genuine context-specific factors, and that the variation in effects between study sites is due to a combination of these contextual factors and chance. In order to synthesise the effects across sites, we

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<sup>&</sup>lt;sup>12</sup> Using the *metan* command in Stata 15

used inverse variance weighting, which has the effect of giving greater weight to data series that have less variability—that is, it gives more weight to data that are more internally consistent.

Meta-analysis is most commonly used to pool the effects from multiple analyses, which each compare an intervention to a control group; however, in this evaluation the meta-analyses pool the effects from multiple analyses of single groups, and then conduct moderator analyses by intervention area status (intervention area or non-intervention area). This approach avoids the problem of lack of independence of studies, which would occur when pooling results from analyses where the comparison groups have been used repeatedly across multiple analyses.

# 3.1.2.5.1 Data analysed using meta-analysis

Meta-analyses were conducted to synthesise the results across each of the following analyses:

- Interrupted time-series analyses of monthly offence data (2001–2018)
- Regression analysis of annual child safety notifications (2010–2016)
- Regression analysis of annual school attendance rates (2013–2017)

# 3.1.2.5.2 Notes on interpretation of meta-analysis forest plots

The results of the meta-analyses are presented graphically using forest plots. A forest plot contains multiple lines of data, each of which is a parameter estimate and its 95 per cent confidence interval (CI) from a previous analysis (either the regression or the interrupted time-series analyses). Each line therefore represents the estimates for one community. Summary results for each group, and their corresponding 95 per cent confidence intervals, are also displayed. **Error! Reference source not found.** shows an example of a meta-analysis forest plot.

The small black diamond for each line graphically represents the parameter estimate, and the lines (or whiskers) coming off the diamond horizontally represent the 95 per cent confidence interval (variability) around that estimate. The parameter estimate and its lower and upper 95 per cent confidence intervals are presented numerically on the right.

A 95 per cent confidence interval can be interpreted as the range of values within which we are 95 per cent confident that the 'true' value of the parameter lies. If two 95 per cent confidence intervals overlap, then there is no statistically significant difference between the two parameters, and any difference between the parameter estimates is part of the natural variability of the two datasets. Conversely, if two 95 per cent confidence intervals *do not* overlap, then there is a statistically significant difference between the two parameters. The vertical line represents zero. If the confidence interval overlaps zero, then the parameter estimate is not significantly different from zero.

Note that the communities are grouped by either intervention or non-intervention status. Under each set of communities, there is a red diamond, which represents the summary or pooled effect for that group. The width of the red diamond represents its confidence interval, and the central point represents the parameter estimate. If the confidence intervals overlap the confidence intervals of the other group, then there is no significant difference between groups. Similarly, if the confidence intervals overlap the zero line, then the summary effect for that group is not significantly different from zero.

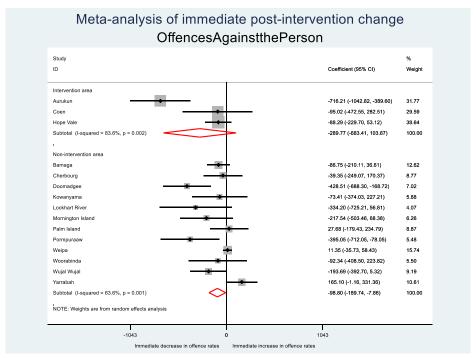


Figure 1 Example of meta-analysis forest plot

Error! Reference source not found. (above) is a meta-analysis of immediate post intervention change in the rate of offences against the person. In this example, we can see that, individually, the communities of Aurukun, Doomadgee, and Pormpuraaw have effects that are significantly below zero, which we interpret as a significant decrease in offences in the period immediately following the intervention. None of the other communities show an effect that is significantly different from zero, which we can interpret as there being no significant change in offences immediately after the intervention in those areas.

We can also see that the effect in Aurukun is significantly lower than that in Hope Vale, Bamaga, Cherbourg, Palm Island, Weipa, and Yarrabah. The effects in Coen and Hope Vale are not significantly different from zero, and there is no significant difference between the effects in Coen and Hope Vale, and those seen in any of the other communities. We would interpret this as no immediate effect of the intervention in any of these communities.

The summary effects show that there is no significant effect in the intervention communities, overall. We would interpret this as showing that, overall, there was no immediate change in offence rate in the intervention communities. Conversely, non-intervention communities, overall, have an effect significantly lower than zero. We would interpret this to indicate that, overall, non-intervention communities saw a reduction in offences in the months following the intervention. However, as the confidence intervals of the two summary effects overlap, we cannot conclude that there is any significant difference in effect between intervention and non-intervention communities.

Finally, we would note that, unlike the intervention group overall, the confidence intervals in Aurukun do not overlap the non-intervention group summary confidence intervals. We would therefore interpret this meta-analysis to indicate:

- 1. there was no significant overall impact on offences immediately following the intervention in the FRC communities;
- 2. a reduction in offences was seen in the non-intervention areas at this time; and

3. Aurukun was the only FRC community that had a significant reduction in offending relative to the reduction seen in the comparison areas.

## 3.1.2.6 Regression of FRC data on aggregate outcomes

The statistical analyses on the aggregate level offence data have thus far only addressed the impact of the FRC intervention more broadly, and were not able to specifically address the impact of CYIM. In order to disentangle the effect of CYIM on these aggregate outcomes, the number of CYIM clients in each community each month was calculated from individual level FRC data, and OLS regressions were performed to assess the relationship between the number of CYIM clients in a community and the offence rate in the corresponding police division.

# 3.1.2.7 Analysis of individual FRC data

FRC data were provided for 2318 unique clients from Aurukun (n=869), Coen (n=204), Doomadgee (n=386), Hope Vale (n=679), and Mossman Gorge (n=180). Data were collated on actions and services provided to the client, and breach notifications made against the client, as well as periods of CYIM. Not all data from separate tables were able to be merged, due to missing identifier or date data, and certain recorded action types that were not pertinent to the analysis, such as notes indicating "no further action" or "rescheduled", were removed from the data<sup>13</sup>. Data were aggregated to months, using the best available date stamp from within the data. It was not always possible to use the same date stamp variable for each observation<sup>14</sup>. Finally, clients resident in Doomadgee were removed from the dataset<sup>15</sup>. The original dataset contained data for 1932 clients from the intervention communities. The final cleaned dataset contains 114,708 aggregated monthly observations for 1,842 unique clients<sup>16</sup>, with an average of 62.3 monthly observations (5 years data) per client (minimum=1 month; maximum=121 months).

Breach notifications could originate from any of the following sources:

- Child Safety
- Children's Court
- Department of Education and Training
- District Court
- Domestic Violence Breach
- Domestic Violence Order
- Housing and Homelessness Services
- Magistrates' Courts
- School Enrolment Notice

<sup>13</sup> The following observations were removed: null "frcq action id" field (n=136), null "notification id" field (n=6), duplicate "client id" + "action id" (n=2), no valid date stamp (n=618), null client id (n=4), client status "deceased" (n=917); status code "inactive" (n=548); action type "no further action" or "rescheduled" (n=10,709). Note that each client has multiple observations, and each observation is a single record or file note. Therefore, deleting an observation does not remove the client's record (except in the case of deceased clients). <sup>14</sup> The date stamp that was most consistently present in the Income Management data was the date that the record was created. If FRCQ date created was null, the following date stamps were used, in order: FRCQ date received; FRCQ start date; FRCQ IM received.

<sup>&</sup>lt;sup>15</sup> n=344 clients were removed as they were resident in Doomadgee

<sup>&</sup>lt;sup>16</sup> Deceased clients were excluded from the analyses as per footnote 13

## 3.1.2.7.1 Descriptive analyses

The longitudinal dataset was collapsed to a cross-sectional summary dataset, with one observation per client and a summary of their breach and CYIM history. Data were initially tabulated by sex and community. The data were then tabulated to describe the mean, and standard deviations of prevalence and incidence of breaches for each breach type. Next, the data were tabulated by the number of different breach types in each client's record, to demonstrate the complex nature of client breach histories. Finally, this multi-type breach data was cross-tabulated with the clients' history of CYIM, to demonstrate the relationship between multi-type breaching and CYIM.

Table 1 (below) lists the variables that were collated or constructed for use in the descriptive analyses.

Table 1 Variables used for descriptive analysis, and their construction

Variable	Construction
CYIM	Whether the client had been on Income Management at any time during their history (0=No, 1=Yes)
Client ID	Unique identifier for FRC client
Community	Aurukun, Coen, Hope Vale, Mossman Gorge
CYIM spells	Number of CYIM spells during history
CYIM percentage	Highest CYIM percentage during history
Proportion of FRC time on CYIM	Calculated as the number of months on CYIM, divided by the number of months as an FRC client
Child Safety Childrens Court Department of Education District Court DVO Breach DV Order Housing Magistrates Court School Enrolment	Whether the client has a record of a breach notification from the relevant agency, at any time in their history (0=No, 1=Yes)
Number of breach types	The number of different breach types in each client's history. (min=0; max=8)  For example, a client who had breach notifications from Child Safety and no other agency would have 1 breach type, whereas a client who had breach notifications from both Child Safety and Department of Education would have 2 breach types.
Female	Client is female (0=No, 1=Yes)

## 3.1.2.7.2 Multilevel logistic regression analysis

A multilevel logistic regression model was conducted using the longitudinal dataset, which contained multiple monthly observations for each FRC client, to estimate which types of breaches were more likely to be associated with a client being placed on CYIM. Recognising that the FRC assesses not just the current breach, but also the client's breach history, we modelled the relationship between the clients' breach notifications to date and their odds of being on CYIM in any given month.

Table 2 (below) lists the variables that were collated or constructed for use in the multilevel logistic regression analysis.

Table 2 Variables used for multilevel logistic regression analysis, and their construction

Variable	Construction
CYIM	Whether the client is on Income Management in the current month
(outcome variable)	(0=No, 1=Yes)
Client ID	Unique identifier for FRC client
Community	Aurukun, Coen, Hope Vale, Mossman Gorge
Child Safety to date Childrens Court to date Department of Education to date District Court to date DVO Breach to date DV Order to date Housing to date Magistrates Court to date School Enrolment to date	Whether the client has a record of a breach notification from the relevant agency, at any time prior to or during the current month (0=No, 1=Yes)
Female	Client is female (0=No, 1=Yes)

The odds of a client being on CYIM was modelled using a multilevel logistic regression model<sup>17</sup>, with a random effect for client and community. The data was analysed as a longitudinal model, with multiple observations per client, and multiple clients per community, in order to account for the nested nature of the data. The model is an extended form of a multiple regression, which controls for the additional impact of all other explanatory variables in the model. As such, the results quantify the unique contribution of each breach type to the likelihood of a client being on CYIM.

#### 3.1.2.7.3 Discrete time event history analyses

Finally, a discrete time event history model was conducted using the longitudinal dataset, which contained multiple monthly observations for each FRC client, to estimate the impact of FRC clients' history of CYIM on the length of time between breach notifications, whilst controlling for age, gender, and the client's history of service referrals.

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<sup>&</sup>lt;sup>17</sup> Using the *xtmelogit* command in Stata 15

Table 3 lists the variables that were collated or constructed for use in the discrete time event history analysis.

Table 3 Variables used for event history analysis, and their construction

Variable	Construction
Months since last breach (outcome variable)	Number of months since the last month where at least one breach notification was received
Client ID	Unique identifier for FRC client
Community	Aurukun, Coen, Hope Vale, Mossman Gorge
Age	Calculated as month minus birthdate. This variable was also entered into the analysis as a squared term to model a curvilinear relationship.
Female	Client is female (0=No, 1=Yes)
Number of CYIM spells to date	The number of spells of Income Management that the client had been on to date, inclusive of the current CYIM period (if any). A spell is any set of consecutive months where the client had been on CYIM at least once during that month. As the data is aggregated to month from daily data, any period of CYIM during a month will count as CYIM for that month. A spell is measured from the date the CYIM order is received until the CYIM period ends or is revoked, whichever is earlier. There must be at least one month without CYIM between each spell.
Months since end of last CYIM spell	The number of months since a client last finished a spell of CYIM. This variable was also entered into the analysis as a squared term to model a curvilinear relationship.
Number of times services referred	The number of months where the client was referred to at least one service or program, to date
Months since last service referral	The number of months since a client was last referred to at least one service or program.  This variable was also entered into the analysis as a squared term to model a curvilinear relationship

The number of months since the last breach was modelled using a multilevel linear regression model<sup>18</sup>, with a random effect for client and community. The data was analysed as a longitudinal model, with multiple observations per client, and multiple clients per community, in order to account for the nested nature of the data. The model is an extended form of a multiple regression, which controls for the additional impact of all other explanatory variables in the model. As such, the results quantify the unique contribution of CYIM, services provision, and demographic characteristics to the length of time since the last breach.

<sup>&</sup>lt;sup>18</sup> Using the *xtmixed* command in Stata 15

## 3.2 Results—offence data

#### 3.2.1 *Notes*

Difference-in-difference analyses were conducted to assess whether the change in outcome (if any) in the intervention division after the intervention was significantly different to the change seen in the comparison division in the absence of an intervention.

A fundamental assumption of difference-in-difference analyses is that there is no significant difference between the pre-intervention trend in the intervention group and the comparison group. Therefore it is important to note that, for these analyses, not all intervention/comparison pairs were evaluated for each outcome. Cells in the results tables marked as "N/A" indicate that the comparison is not statistically appropriate.

To determine the appropriate comparison divisions for each of the offence types, the pre-intervention offence trends for each of the comparison divisions were compared to the trends in each of the treated divisions. If the trends were significantly different (p-value <=0.05) this indicated that there was too great a deviation from the offence trends of the treated division and these analyses were thus not appropriate for interpretation. P-values above 0.05 signalled trend similarity, with larger values indicating greater similarity.

Comparison tables have been shaded according to the legend in Table 4 to assist with identifying the most appropriate comparison divisions.

Table 4 Legend for statistical significance of pre-intervention trends

p = .80 - 1.0	p = .5079	p = .2049	p = .0519	p < .05
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# 3.2.2 Assault

# 3.2.2.1 Graphing

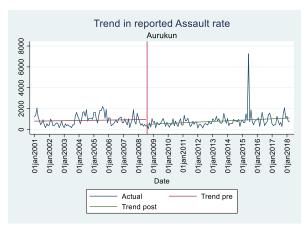


Figure 2 Trend in reported assault rate—Aurukun

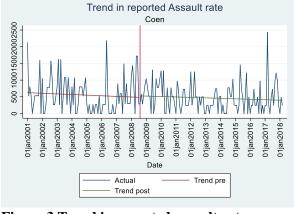


Figure 3 Trend in reported assault rate—Coen

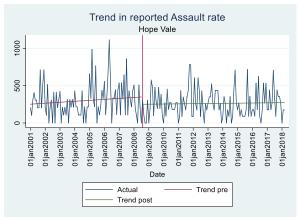


Figure 4 Trend in reported assault rate— Hope Vale

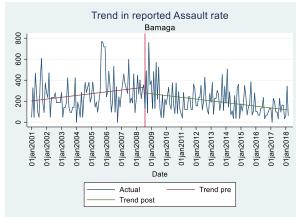


Figure 5 Trend in reported assault rate—Bamaga

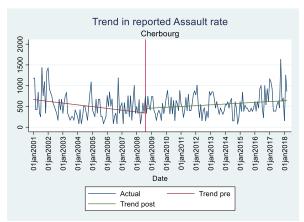


Figure 6 Trend in reported assault rate—Cherbourg

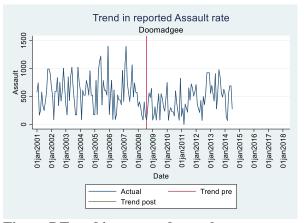


Figure 7 Trend in reported assault rate— Doomadgee

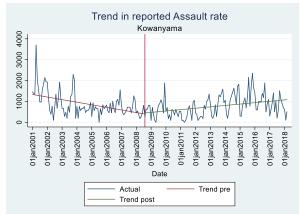


Figure 8 Trend in reported assault rate—Kowanyama

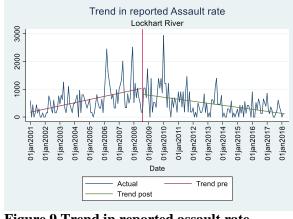


Figure 9 Trend in reported assault rate— Lockhart River

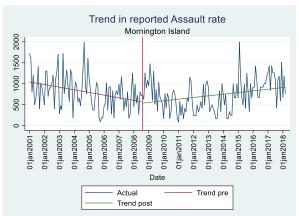


Figure 10 Trend in reported assault rate— Mornington Island

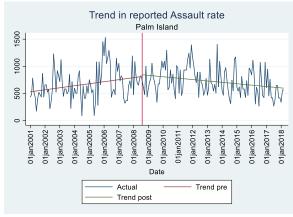


Figure 11 Trend in reported assault rate—Palm Island

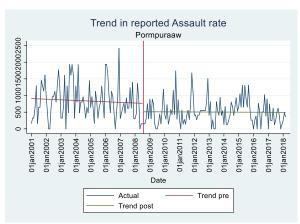


Figure 12 Trend in reported assault rate— Pormpuraaw

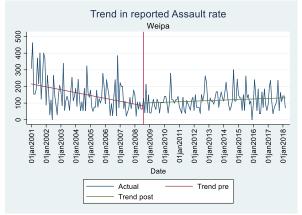


Figure 13 Trend in reported assault rate—Weipa

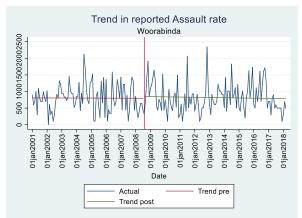


Figure 14 Trend in reported assault rate—Woorabinda

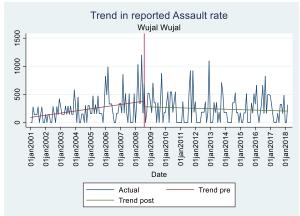


Figure 15 Trend in reported assault rate— Wujal Wujal

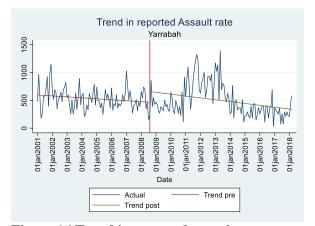


Figure 16 Trend in reported assault rate— Yarrabah

# 3.2.2.2 Difference-in-difference analyses

Table 5 Statistical overview of difference-in-difference results for Assault

Assault	Aurukun (Au)	Coen (Co)	Hope Vale (HV)
Bamaga (Ba)	p = .91, ns	p = .75, $ns$	p = .37, ns
Cherbourg (Ch)	p = .21, ns	p = .09, $ns$	N/A
Doomadgee (Do)	p = .62, ns	p = .63, ns	p = .07, $ns$
Kowanyama (Ko)	N/A	N/A	N/A
Lockhart River (LR)	N/A	N/A	N/A
Mornington Island (MI)	N/A	p = .91, ns	N/A
Palm Island (PI)	p = .17, ns	p = .06, ns	p = .07, ns
Pormpuraaw (Po)	<i>p</i> < .05 Au <b>↓</b> Po <b>↓</b>	<i>p</i> < .05 Co <b>↓</b> Po <b>↓</b>	<i>p</i> < .01 HV <b>↓</b> Po <b>↓</b>
Weipa (We)	p = .60, ns	p = .39, ns	N/A
Woorabinda (Wo)	p = .37, ns	p = .24, ns	p = .43, ns
Wujal Wujal (Wu)	p = .35, ns	p = .18, ns	p = .31, ns
Yarrabah (Ya)	p = .62, ns	p = .44, ns	N/A

# Legend:

- ↑ indicates a large increase in average offence rates since the intervention
- ↑ indicates a modest increase in average offence rates post-intervention
- **♦** indicates a large decrease in average offence rates post-intervention
- ↓ indicates a modest decrease in average offence rates post-intervention

ns indicates no significant between-group difference in outcomes following the intervention

N/A indicates that the comparison is not appropriate due to non-parallel pre-intervention trends

## 3.2.2.2.1 Aurukun

Of the 12 potential comparison divisions, nine were assessed to be appropriate comparisons, with the division of Bamaga showing the best match to Aurukun's pre-intervention trend in assault rates. In eight of these nine comparisons, there was no significant impact of the intervention. The only analysis that showed a significant impact of the intervention compared the change in assault rates between Aurukun and Pormpuraaw. However, in this instance the post-intervention impact was due to assault

rates decreasing further in Pormpuraaw than in Aurukun, where Aurukun decreased by approximately 81 per 100,000 and Pormpuraaw decreased by 334 per 100,000.

Overall, the difference-in-difference analyses do not suggest that the intervention has reduced assault in Aurukun, over and above any changes seen in the absence of the intervention.

# 3.2.2.2.2 Coen

From the 12 potential comparison divisions for Coen, ten were evaluated to be appropriate comparisons, with the divisions of Pormpuraaw, Weipa, and Yarrabah demonstrating the best similarity to Coen's pre-intervention trend in assault rates. In nine of these ten comparisons, there was no significant impact of the intervention. The only analysis that demonstrated a significant impact of the intervention compared the change in assault rates between Coen and Pormpuraaw. However, in this case the post-intervention impact was because of the assault rates decreasing further in Pormpuraaw than in Coen, where Coen decreased by approximately 92 per 100,000 and Pomrpuraaw decreased by 334 per 100,000.

Overall, the difference-in-difference analyses do not suggest that the intervention has reduced assault in Coen above and beyond any changes seen in the absence of the intervention.

#### 3.2.2.2.3 *Hope Vale*

From the 12 potential comparison divisions for Hope Vale, six were reviewed to be appropriate comparisons, with the divisions of Bamaga and Woorabinda showing the best match to Hope Vale's pre-intervention trend in assault rates. The intervention did not show a significant impact in five of these six comparisons. The only analysis that showed a significant impact of the intervention compared the change in assault rates between Hope Vale and Pormpuraaw. However, in this comparison the post-intervention impact was due to assault rates decreasing more in Pormpuraaw than in Hope Vale, where Hope Vale decreased by approximately 39 per 100,000 and Pormpuraaw decreased by 334 per 100,000.

Overall, the difference-in-difference analyses show no evidence to indicate that the intervention has reduced assault in Hope Vale, over and above any changes seen in the absence of the intervention.

## 3.2.2.2.4 Summary

The difference-in-difference analyses (across 25 analyses) suggest that the intervention had no significant impact on assault rates in the divisions of Aurukun, Coen, and Hope Vale.

## 3.2.2.3 Meta-analyses

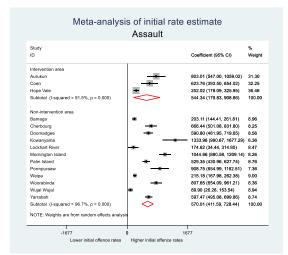


Figure 17 Initial rate estimate—Assault

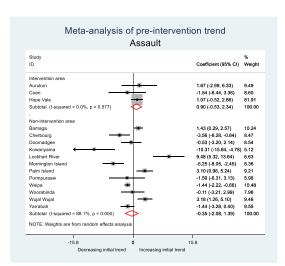


Figure 18 Pre-intervention trend—Assault

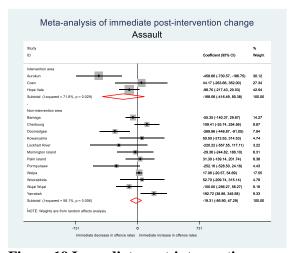


Figure 19 Immediate post-intervention change—Assault

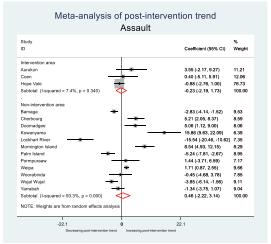


Figure 20 Change in trend postintervention—Assault

Interrupted time-series analyses for assault were conducted for all police divisions that contained Indigenous communities, and the results of the key parameters were meta-analysed (see Methodology for detail).

# 3.2.2.3.1 Initial rate estimate

The results of the interrupted time-series analysis indicate that there was a great deal of variability in the initial rate of assault in 2001 ( $I^2$  intervention areas = 91.5% p<.001,  $I^2$  comparison areas = 96.7% p<.001). However, moderator analyses indicated that there was no significant difference between the initial rate of assault in the pooled intervention divisions compared to the pooled comparison divisions.

# 3.2.2.3.2 Pre-intervention trend

None of the intervention divisions demonstrated a statistically significant trend in assault (either increasing or decreasing) prior to the intervention. This result was highly consistent within the intervention areas, with no significant variation ( $I^2$ =0%, p=.58). There was a high degree of variation amongst the comparison divisions ( $I^2$ =88.1%, p<.001), with four divisions showing a significant decrease over time prior to the intervention, and four showing a significant increase over time prior to the intervention. Moderator analyses indicated that there was no significant difference between the pre-intervention trend in assault in the intervention divisions and in the non-intervention divisions, and that neither group (overall) showed a significant pre-intervention trend.

## 3.2.2.3.3 Immediate post-intervention change

There was a large degree of variability in the immediate impact of the intervention amongst the intervention groups ( $I^2=71.8\%$ , p<.05). Immediately following the intervention there was a statistically significant decrease in assault in Aurukun (the rate decreased by 458 per 100,000 persons; CI: -730.57 to -186.75), which was significantly beyond any change seen in the pooled comparison group. However, neither Coen nor Hope Vale showed any significant and immediate change post-intervention. Overall, the intervention areas (when pooled) did not show a significant and immediate impact of the intervention. There was also a large degree of variability in the immediate impact of the intervention amongst the comparison divisions ( $I^2=58.1\%$ , p<.01). However, overall there was no significant and immediate change following the intervention in the comparison areas (when pooled).

#### 3.2.2.3.4 Post-intervention trend

Following the intervention, there was no significant change to the trend in assaults in any of the intervention areas. This was a highly consistent result within the intervention areas, with no significant variation ( $I^2$ =0%, p=.34). There was a high degree of variation amongst the comparison divisions in how the pre-intervention trend changed after the intervention ( $I^2$ =93.3%, p<.001), with four divisions showing a significant decrease from their previous trend over time after the intervention, and five showing a significant increase on their previous trend over time. Moderator analysis indicated that there was no significant difference between groups in how the trend in assault changed after the intervention.

## 3.2.2.3.5 Summary

These results are consistent with the results of the difference-in-difference analyses, which indicated that overall, the evidence did not suggest that the intervention had a significant impact on assault rates. Overall, the meta-analyses of the interrupted time-series analyses for assault indicate that only Aurukun's assault rates saw any reduction immediately following the intervention, but that this was not sustained over the long term, and that there was no significant change in trend following the intervention in either the pooled intervention areas or the pooled comparison areas.

## 3.2.2.4 Regress monthly data on monthly CYIM clients

A series of ordinary least squares regressions were conducted to assess the relationship between the number of CYIM clients in a community at each month, and the assault rate in the corresponding police division. The resulting coefficients were then meta-analysed (see Methodology for detail).

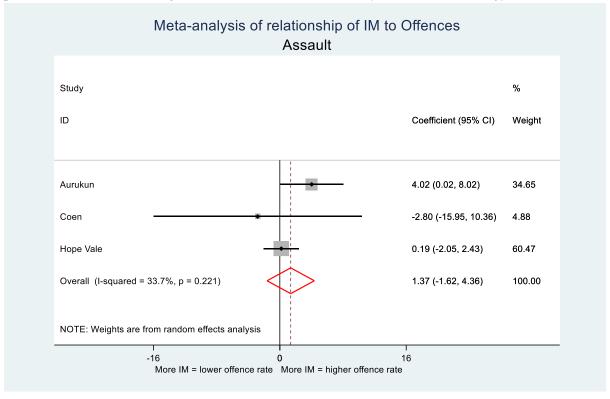


Figure 21 Meta-analysis of relationship of CYIM to offences—Assault

The results of the regression analysis showed that Aurukun had a (barely) significant relationship between the number of CYIM clients in the community and the assault rate in the corresponding police division, whereby as the number of CYIM clients increased, so too did the rate of assault. However, there was no overall significant relationship between CYIM and assault in the pooled intervention divisions, with no significant variability between communities.

# 3.2.3 Sexual offences

# 3.2.2.5 *Graphing*

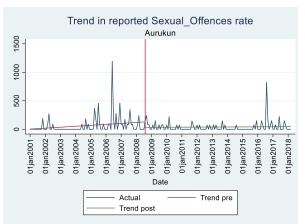


Figure 22 Trend in reported sexual offences rate—Aurukun

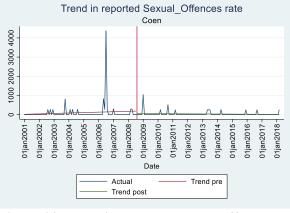


Figure 23 Trend in reported sexual offences rate—Coen

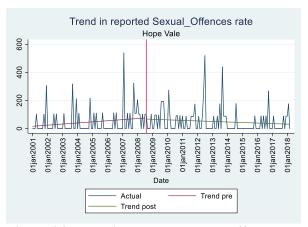


Figure 24 Trend in reported sexual offences rate—Hope Vale

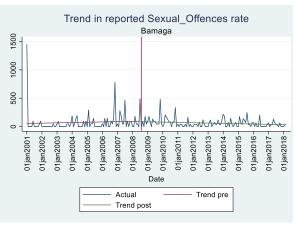


Figure 25 Trend in reported sexual offences rate—Bamaga

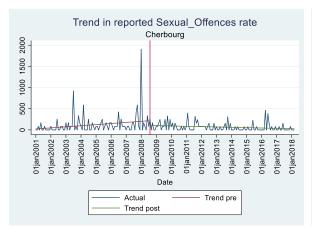


Figure 26 Trend in reported sexual offences rate—Cherbourg

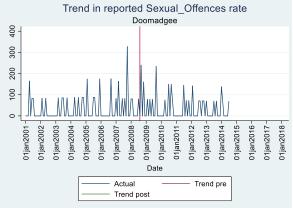


Figure 27 Trend in reported sexual offences rate—Doomadgee

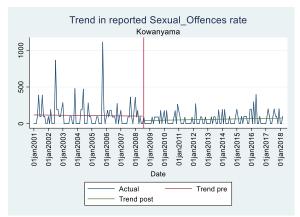


Figure 28 Trend in reported sexual offences rate—Kowanyama

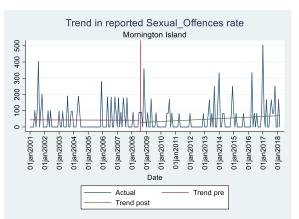


Figure 30 Trend in reported sexual offences rate—Mornington Island

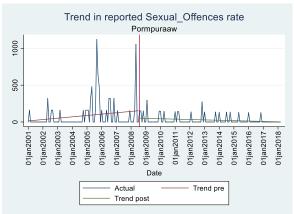


Figure 32 Trend in reported sexual offences rate—Pormpuraaw

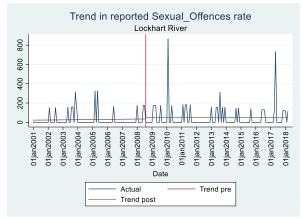


Figure 29 Trend in reported sexual offences rate—Lockhart River

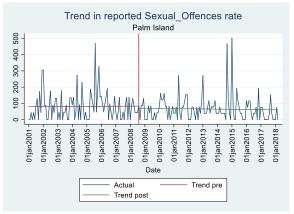


Figure 31 Trend in reported sexual offences rate—Palm Island

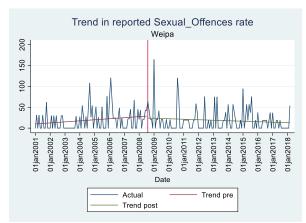


Figure 33 Trend in reported sexual offences rate—Weipa

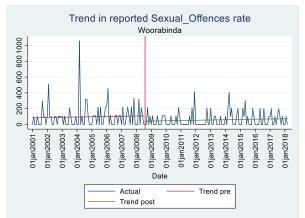


Figure 34 Trend in reported sexual offences rate—Woorabinda

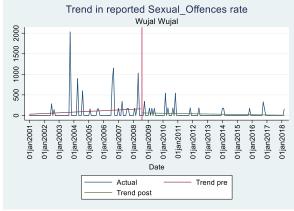


Figure 35 Trend in reported sexual offences rate—Wujal Wujal

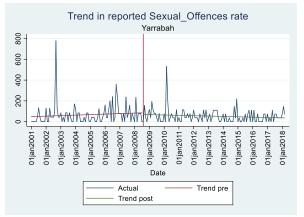


Figure 36 Trend in reported sexual offences rate—Yarrabah

# 3.2.2.6 Difference-in-difference analyses

**Table 6** Statistical overview of difference-in-difference results for sexual offences

Sexual Offences	Aurukun	Coen	Hope Vale
Bamaga	p = .70, $ns$	p = .31, $ns$	p = .41, ns
Cherbourg	p = .38, ns	p = .79, ns	$p < .05 \text{ HV } 0 \text{ Ch } \mathbf{\Psi}$
Doomadgee	p=.17, $ns$	p = .18, $ns$	p = .99, ns
Kowanyama	N/A	p = .77, $ns$	<i>p</i> < .05 HV 0 Ko <b>↓</b>
Lockhart River	N/A	p = .07, ns	p = .36, ns
Mornington Island	N/A	p = .13, ns	p = .87, ns
Palm Island	N/A	p = .29, $ns$	p = .26, ns
Pormpuraaw	p=.23,ns	p = .86, ns	<i>p</i> < .05 HV 0 Po <b>↓</b>
Weipa	N/A	p = .16, ns	p = .75, ns
Woorabinda	p = .57, ns	p = .57, ns	<i>p</i> < .05 HV 0 Wo ↓
Wujal Wujal	p = .30, ns	p = .93, ns	<i>p</i> < .05 HV 0 Wu <b>↓</b>
Yarrabah	p = .58, $ns$	p = .27, $ns$	p = .31, ns

## 3.2.2.6.1 Aurukun

Of the 12 potential comparison divisions, seven were assessed to be appropriate comparisons, with the divisions of Wujal Wujal and Pormpuraaw showing the best match to Aurukun's pre-intervention trend in sexual offence rates. No comparisons showed any significant post-intervention impact.

Overall, the difference-in-difference analyses suggest that the intervention has not reduced sexual offences in Aurukun, over and above any changes seen in the absence of the intervention.

#### 3.2.2.6.2 Coen

All 12 potential comparison divisions for Coen were evaluated to be appropriate comparisons, with the divisions of Cherbourg, Pormpuraaw, and Wujal Wujal demonstrating the best similarity to Coen's pre-intervention trend in sexual offence rates. In all 12 comparisons, no significant post-intervention impact of the intervention was found.

Overall, the difference-in-difference analyses do not suggest that the intervention has reduced sexual offences in Coen above and beyond any changes seen in the absence of the intervention.

#### 3.2.2.6.3 Hope Vale

All 12 potential comparison divisions for Hope Vale were reviewed to be appropriate comparisons, with Bamaga showing the best match to Hope Vale's pre-intervention trend in sexual offences. The intervention did not show a significant impact in seven of these 12 comparisons. Five analyses that showed a significant impact of the intervention compared the change in sexual offence rates between Hope Vale and Cherbourg, Kowanyama, Pomrpuraaw, Woorabinda, and Wujal Wujal. However, in these comparisons the post-intervention impact was due to sexual offence rates decreasing in the comparison divisions rather than any change in Hope Vale, where Hope Vale decreased by approximately 3 per 100,000 and the comparison divisions decreased by at least 39 per 100,000.

Overall, the difference-in-difference analyses do not suggest that the intervention had a positive impact on sexual offence rates in Hope Vale, above and beyond any changes seen in the absence of the intervention; rather, the comparison areas improved significantly more than the relative stability seen in Hope Vale.

#### 3.2.2.6.4 Summary

The difference-in-difference analyses, across 31 analyses, suggest that the intervention had no significant impact on sexual offence rates in any of the treated divisions of Aurukun and Coen, and demonstrated that there was a significant reduction in sexual offence rates in many of the comparison divisions compared to the relative stability of the rates in Hope Vale.

## 3.2.2.7 Meta-analyses

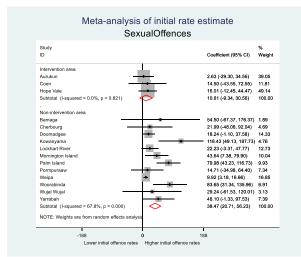


Figure 37 Initial rate estimate—sexual offences

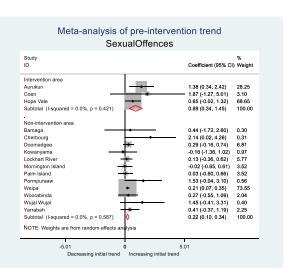


Figure 38 Pre-intervention trend—sexual offences

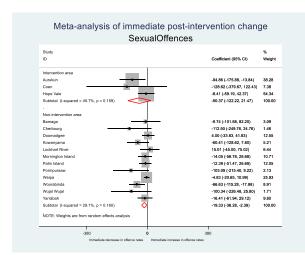


Figure 39 Immediate post-intervention change—sexual offences

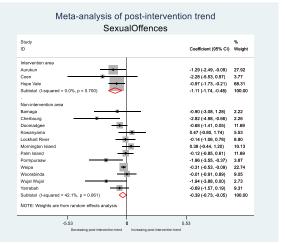


Figure 40 Change in trend postintervention—sexual offences

#### 3.2.2.7.1 Initial rate estimate

The results of the interrupted time series analysis indicate that there was a no significant variability in the initial rate of sexual offences in 2001 in the intervention areas ( $I^2 = 0.0\%$  p<.0821), but a highly significant variation amongst the comparison areas ( $I^2 = 67.8\%$  p<.001). Moderator analyses indicated that there was no significant difference between the initial rates of sexual offences in the pooled intervention divisions compared to the pooled comparison divisions.

#### 3.2.2.7.2 Pre-intervention trend

Only Aurukun showed a statistically significant pre-intervention increase in sexual offences over time (the rate rose on average by 1.38 per 100,000 per month; CI: 0.34 to 2.42), and neither Coen nor Hope Vale demonstrated a statistically significant trend in sexual offences prior to the intervention. However, although two of the three intervention areas did not show a statistically significant trend, the

overall pooled effect is that intervention areas had a significant increasing trend (0.89 per 100,000 per month; CI: 0.34 to 1.45), and this effect was highly consistent within the intervention areas, with no significant variation ( $I^2$ =0%, p=.42). There was also no significant variation amongst the comparison divisions ( $I^2$ =0%, p<.59), with only one individual division showing any significant trend over time prior to the intervention. However, again, when the results for all comparison divisions were pooled, the group as a whole showed a small but significant increase in sexual offences over time (0.22 per 100,000 per month; CI: 0.10 to 0.34). Moderator analyses indicated that sexual offences were increasing at a significantly greater rate in the intervention divisions than in the comparison divisions, prior to the intervention.

## 3.2.2.7.3 Immediate post-intervention change

There was a no significant variability in the immediate impact of the intervention amongst either the intervention areas (I²=45.7%, p=.16) or the comparison areas (I²=29.1%, p=.16). Immediately following the intervention there was a statistically significant decrease in sexual offences in Aurukun (-94.86 per 100,000; CI: -175.88 to -13.84), but this was not significantly different to the reduction that was also seen in the pooled comparison group (-19.33 per 100,000; CI: -36.28 to -2.39). Neither Coen nor Hope Vale showed any significant and immediate change post-intervention, and overall, the intervention areas (when pooled) did not show a significant and immediate impact of the intervention. As detailed above, there was a statistically significant and immediate decrease following the intervention in the comparison areas (when pooled); however, moderator analysis indicated that there was no significant difference between immediate impact of the intervention on the intervention and comparison groups.

#### 3.2.2.7.4 Post-intervention trend

Following the intervention, both the pooled intervention areas and the pooled comparison areas showed a significant reduction to the previous trend in sexual offences. This was a highly consistent result with no significant variation within the intervention areas ( $I^2$ =0%, p=.70), or the comparison areas ( $I^2$ =42.1%, p=.06). Moderator analysis indicated that there was no significant difference between groups in the reduction in the trend in sexual offences.

#### *3.2.2.7.5 Summary*

The difference-in-difference analyses indicated that there was no significant impact of the intervention in Aurukun or Coen, but suggested the possibility of a negative relative effect in Hope Vale because the average sexual offence rate in Hope Vale was effectively stable following the intervention, relative to a significant decrease in some comparison areas. However, the meta-analyses of the interrupted time series analyses shows no significant difference between Hope Vale and the pooled comparison area on any of the key parameters. The difference in the results of the two analyses can be best described as an issue of aggregation. The difference-in-difference analysis shows a significant post-intervention difference between groups when the months pre- and post-intervention are aggregated to an average; however, this is as a result of aggregating smaller, non-significant differences over the longer (disaggregated) trends in the data. The interrupted time series analysis gives a more nuanced interpretation of the trends in the data, and demonstrates that there was no significant changes in the rate of sexual offences in Hope Vale, relative to the levels and trends in the comparison area.

Overall, the meta-analyses of the interrupted time series analyses for sexual offences indicate that the initial level of offences was lower in intervention divisions than in comparison divisions, but that the intervention areas had shown a significantly faster growth in offences over time, prior to the intervention. However, there was no significant impact of the intervention on sexual offences in the intervention areas, over and above the decrease seen in the comparison areas.

## 3.2.2.8 Regress monthly data on monthly CYIM clients

A series of ordinary least squares regressions were conducted to assess the relationship between the number of CYIM clients in a community at each month, and the offence rate in the corresponding police division. The resulting coefficients were then meta-analysed (see Methodology for detail).

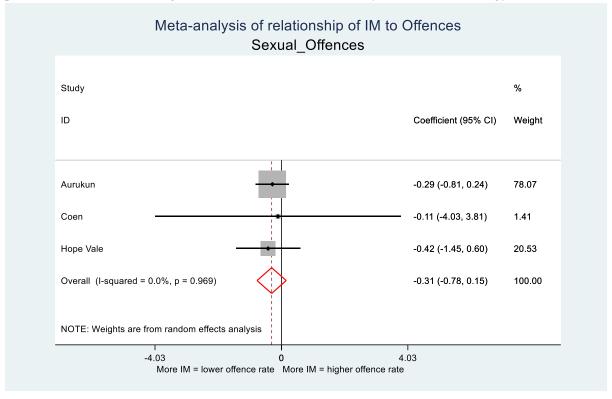


Figure 41 Meta-analysis of relationship of CYIM to offences—sexual offences

The results of the regression analysis showed none of the communities showed a significant relationship between the number of CYIM clients in the community and the rate of sexual offences in the corresponding police division. There was no overall significant relationship between CYIM and sexual offences in the pooled intervention divisions, with no significant variability between communities.

# 3.2.4 Offences against the person

# *3.2.4.1 Graphing*

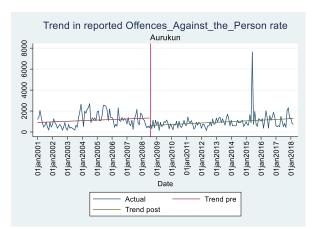


Figure 42 Trend in reported offences against the person rate—Aurukun

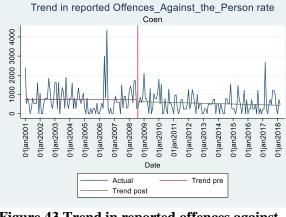


Figure 43 Trend in reported offences against the person rate—Coen

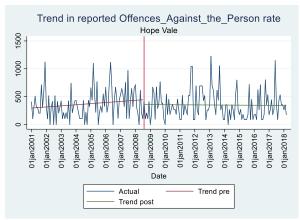


Figure 44 Trend in reported offences against the person rate—Hope Vale

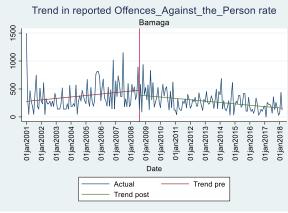


Figure 45 Trend in reported offences against the person rate—Bamaga

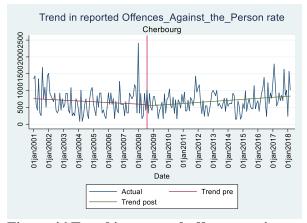


Figure 46 Trend in reported offences against the person rate—Cherbourg

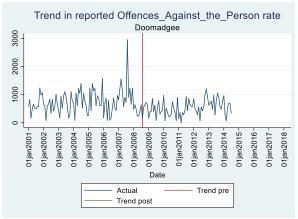


Figure 47 Trend in reported offences against the person rate—Doomadgee

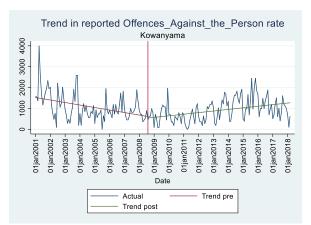


Figure 48 Trend in reported offences against the person rate—Kowanyama

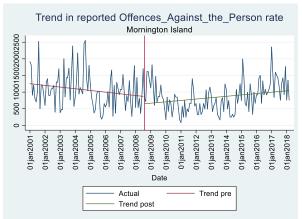


Figure 50 Trend in reported offences against the person rate—Mornington Island

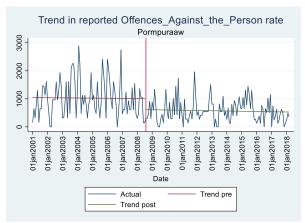


Figure 52 Trend in reported offences against the person rate—Pormpuraaw

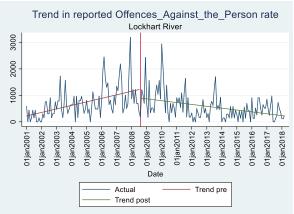


Figure 49 Trend in reported offences against the person rate—Lockhart River

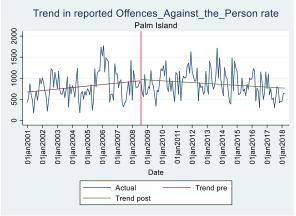


Figure 51 Trend in reported offences against the person rate—Palm Island

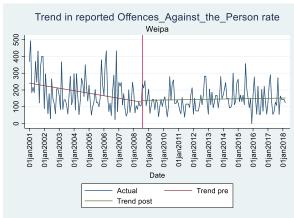


Figure 53 Trend in reported offences against the person rate—Weipa

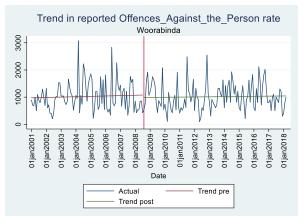


Figure 54 Trend in reported offences against the person rate—Woorabinda

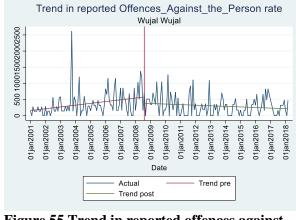


Figure 55 Trend in reported offences against the person rate—Wujal Wujal

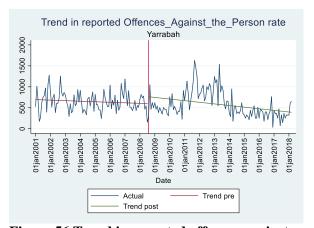


Figure 56 Trend in reported offences against the person rate—Yarrabah

## 3.2.4.2 Difference-in-difference analyses

Table 7 Statistical overview of difference-in-difference results for offences against the person

Offences	Aurukun	Coen	Hope Vale
Against the			
Person			
Bamaga	p = .52, $ns$	p = .30, ns	p = .08, ns
Cherbourg	N/A	<i>p</i> < .05 Co <b>♥</b> Ch <b>↑</b>	p = .55, ns
Doomadgee	p = .80, ns	p = .95, ns	<i>p</i> < .01, HV <b>↓</b> Do <b>↓</b>
Kowanyama	N/A	N/A	N/A
Lockhart River	p = .94, ns	N/A	N/A
Mornington Island	N/A	p = .85, $ns$	N/A
	05 4 1 107 4	05.6 14.07.4	1.6
Palm Island	<i>p</i> < .05 Au ♥ PI ↑	<i>p</i> < .05 Co <b>♥</b> PI <b>↑</b>	p = .16, $ns$
Pormpuraaw	<i>p</i> < .05 Au <b>♥</b> Po <b>♥</b>	<i>p</i> < .05 Co <b>♥</b> Po <b>♥</b>	<i>p</i> < .001 HV <b>↓</b> Po <b>↓</b>
Weipa	N/A	p = .07, $ns$	N/A
Woorabinda	p = .20, ns	p = .10, ns	p = .91, ns
Wujal Wujal	p = .35, ns	p = .19, ns	p = .43, ns
Yarrabah	p = .35, $ns$	p = .17, ns	p = .36, ns

#### 3.2.4.2.1 Aurukun

Of the 12 potential comparison divisions, eight were assessed to be appropriate comparisons, with the division of Wujal Wujal showing the best match to Aurukun's pre-intervention trend in offences against the person rates. In six of these eight comparisons, there was no significant impact of the intervention. The two analyses that showed a significant impact of the intervention compared the change in offence against the person rates between Aurukun and Palm Island, and Aurukun and Pormpuraaw. In the first instance the post-intervention impact was due to rates of offences against the person decreasing in Aurukun and increasing in Palm Island. In the second instance, the post-intervention impact was due to rates of offences against the person decreasing more in Pormpuraaw than the decrease in Aurukun.

Overall, the difference-in-difference analyses do not suggest that the intervention has reduced offences against the person in Aurukun, over and above any changes seen in the absence of the intervention.

#### 3.2.4.2.2 Coen

From the 12 potential comparison divisions for Coen, ten were evaluated to be appropriate comparisons, with the division of Pormpuraaw demonstrating the best similarity to Coen's preintervention trend in offences against the person rates. In seven of these ten comparisons, there was

no significant impact of the intervention. The three analyses that demonstrated a significant impact of the intervention compared the change in offences against the person rates between Coen and Cherbourg, Palm Island, and Pormpuraaw. In the first two cases the post-intervention impact was because of the offence rates reducing in Coen and increasing in Cherbourg and Palm Island. The third analysis demonstrated a significant impact of the intervention; however, this post-intervention impact was due to a greater decrease in rates of offences against the person in Pormpuraaw than in Coen.

Overall, the difference-in-difference analyses do not suggest that the intervention has reduced rates of offences against the person in Coen above and beyond any changes seen in the absence of the intervention.

## 3.2.4.2.3 *Hope Vale*

From the 12 potential comparison divisions for Hope Vale, eight were reviewed to be appropriate comparisons, with the division Woorabinda showing the best match to Hope Vales' pre-intervention trend in offences against the person rates. The intervention did not show a significant impact in six of these seven comparisons. Two analyses showed a significant impact of the intervention between Hope Vale and the comparisons of Doomadgee and Pormpuraaw. However, in both these comparison the post-intervention impact was due to offences against the person rates decreasing more in the comparison areas than in Hope Vale: Hope Vale decreased by approximately 20 per 100,000, Doomadgee decreased by 200 per 100,000, and Pormpuraaw decreased by 455 per 100,000.

Overall, the difference-in-difference analyses do not suggest that the intervention has reduced offences against the person in Hope Vale, over and above any changes seen in the absence of the intervention.

#### 3.2.4.2.4 Summary

The difference-in-difference analyses, across 26 analyses, suggest that the intervention had little to no significant impact on rates of offences against the person in the divisions of Aurukun, Coen, and Hope Vale.

## 3.2.4.3 Meta-analyses

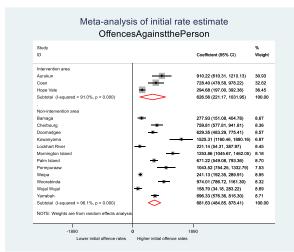


Figure 57 Initial rate estimate—offences against the person

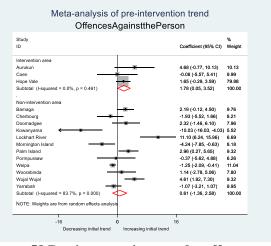


Figure 58 Pre-intervention trend—offences against the person

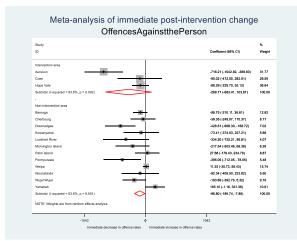


Figure 59 Immediate post-intervention change—offences against the person

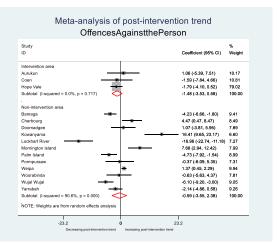


Figure 60 Change in trend postintervention—offences against the person

#### 3.2.4.3.1 Initial rate estimate

The results of the interrupted time series analysis indicate that there was significant variability in the initial rate of offences against the person in 2001 in the intervention areas ( $I^2 = 91.0\%$  p<.0.001), as well as amongst the comparison areas ( $I^2 = 96.1\%$  p<.001). Moderator analyses indicated that there was no significant difference between the initial rate of offences against the person in the pooled intervention divisions compared to the pooled comparison divisions.

#### 3.2.4.3.2 Pre-intervention trend

None of the intervention divisions demonstrated a statistically significant trend in offences against the person prior to the intervention. However, the overall pooled effect is that intervention areas had a significant increasing trend (1.78 per 100,000 per month; CI: 0.05 to 3.52), and this effect was highly consistent within the intervention areas, with no significant variation ( $I^2$ =0%, p=.46). There was

highly significant variation amongst the comparison divisions ( $I^2$ =83.7%, p<0.001), and the pooled effect showed no significant change in trend over time, prior to the intervention occurring. Moderator analyses indicated that there was no significant difference between the trend in the rate of offences against the person in the intervention divisions relative to the comparison divisions, prior to the intervention.

## 3.2.4.3.3 Immediate post-intervention change

There was a significant variability in the immediate impact of the intervention amongst both the intervention areas ( $I^2$ =83.6%, p<0.01) and the comparison areas ( $I^2$ =63.6%, p<0.01). Immediately following the intervention there was a statistically significant decrease in offences against the person in Aurukun (-716.21 per 100,000; CI: -1042.82 to -389.6), and this was a significantly greater than the (also significant) reduction seen in the pooled comparison group (-98.8 per 100,000; CI: -189.74 to -7.86). Neither Coen nor Hope Vale showed any significant and immediate change post-intervention, and overall, the intervention areas (when pooled) did not show a significant and immediate impact of the intervention. As detailed above, there was a statistically significant and immediate decrease following the intervention in the comparison areas (when pooled); however, moderator analysis indicated that there was no significant difference between immediate impact of the intervention on the intervention and comparison groups.

#### 3.2.4.3.4 Post-intervention trend

Following the intervention, neither the pooled intervention areas nor the pooled comparison areas showed a significant change to the previous (pre-intervention) trend in offences against the person. In the intervention areas, the effects were highly consistent across divisions with no significant variation within the intervention areas ( $I^2$ =0%, p=0.717), whilst in the comparison areas there was significant variation in effects ( $I^2$ =90.6%, p<0.001). Moderator analysis indicated that there was no significant difference between groups in the change in the trend in offences against the person.

## *3.2.4.3.5 Summary*

Overall, the meta-analyses of the interrupted time series analyses for offences against the person indicate that only Aurukun saw any reduction in offence rates immediately following the intervention, over and above the significant decrease seen in the pooled comparison areas. However, whilst there was an immediate impact of the intervention, by 2018 offence against the person rates had returned to pre-intervention levels in Aurukun. There was no significant difference between the pooled intervention areas and the pooled comparison areas in initial level of offending, pre-intervention trend, immediate post-intervention change, or post-intervention change to trend. This is consistent with the results from the difference-in-difference analyses that showed no overall impact on rates of offences against the person in the intervention divisions.

## 3.2.4.4 Regress monthly data on monthly CYIM clients

A series of ordinary least squares regressions were conducted to assess the relationship between the number of CYIM clients in a community at each month, and the offence rate in the corresponding police division. The resulting coefficients were then meta-analysed (see Methodology for detail).

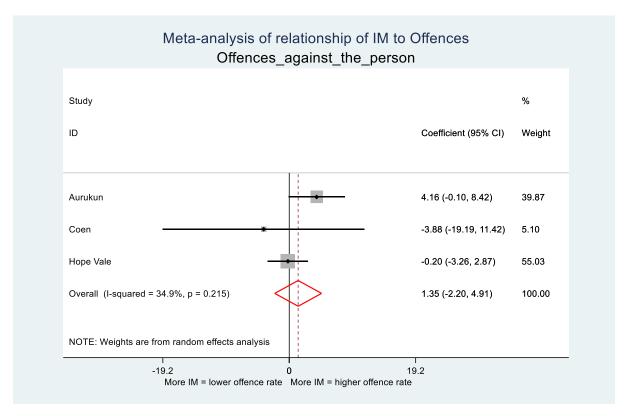


Figure 61 Meta-analysis of relationship of CYIM to offences—offences against the person

The results of the regression analysis showed none of the communities showed a significant relationship between the number of CYIM clients in the community and the rate of offences against the person in the corresponding police division. There was no overall significant relationship between CYIM and the rate of offences against the person in the pooled intervention divisions, with no significant variability between communities.

# 3.2.5 Offences against property

# *3.2.5.1 Graphing*

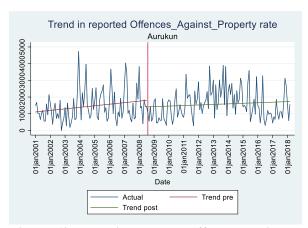


Figure 62 Trend in reported offences against property rate—Aurukun

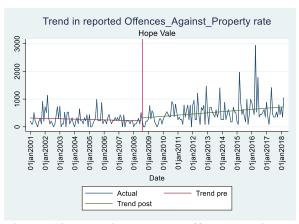


Figure 64 Trend in reported offences against property rate—Hope Vale

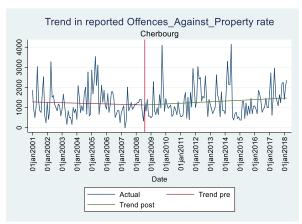


Figure 66 Trend in reported offences against property rate—Cherbourg

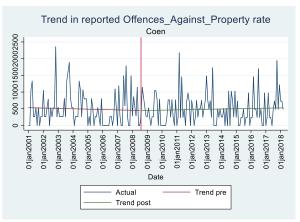


Figure 63 Trend in reported offences against property rate—Coen

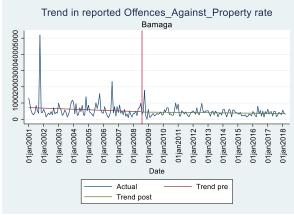


Figure 65 Trend in reported offences against property rate—Bamaga

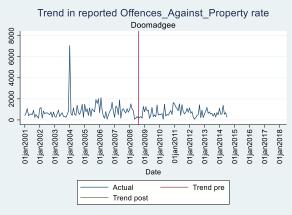


Figure 67 Trend in reported offences against property rate—Doomadgee

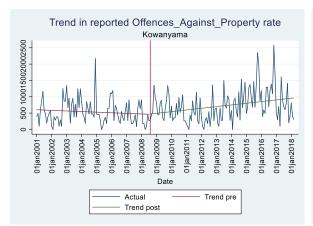


Figure 68 Trend in reported offences against property rate—Kowanyama

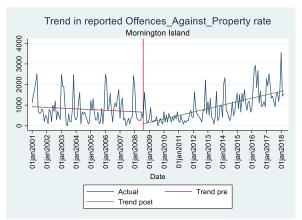


Figure 70 Trend in reported offences against property rate—Mornington Island

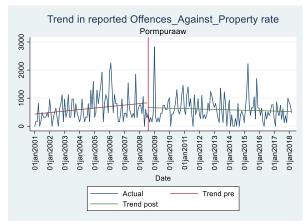


Figure 72 Trend in reported offences against property rate—Pormpuraaw

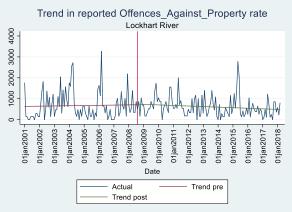


Figure 69 Trend in reported offences against property rate—Lockhart River

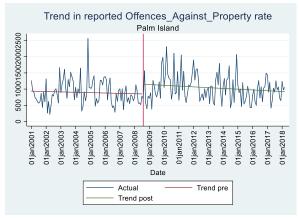


Figure 71 Trend in reported offences against property rate—Palm Island

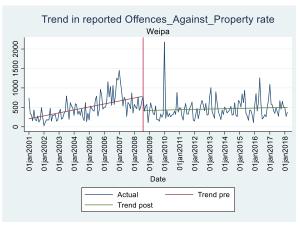


Figure 73 Trend in reported offences against property rate—Weipa

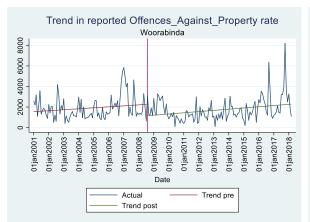


Figure 74 Trend in reported offences against property rate—Woorabinda

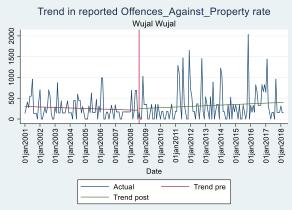


Figure 75 Trend in reported offences against property rate—Wujal Wujal

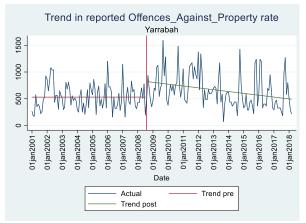


Figure 76 Trend in reported offences against property rate—Yarrabah

## 3.2.5.2 Difference-in-difference analyses

Table 8 Statistical overview of difference-in-difference results for offences against property

Offences	Aurukun	Coen	Hope Vale
<b>Against Property</b>			
Bamaga	N/A	<i>p</i> < .05 Co 0 Ba <b>♥</b>	<i>p</i> < .001 HV <b>↑</b> Ba <b>↓</b>
Cherbourg	N/A	p = .42, ns	p = .17, ns
Doomadgee	p = .18, ns	p = .36, ns	N/A
Kowanyama	N/A	<i>p</i> < .05 Co 0 Ko <b>↑</b>	p = .38, ns
Lockhart River	p = .25, ns	p = .61, ns	<i>p</i> < .05 HV ↑ LR ↓
Mornington Island	N/A	p = .37, ns	p = .16, ns
Palm Island	N/A	p = .09, ns	p = .14, ns
Pormpuraaw	p = .28, ns	N/A	N/A
Weipa	p = .27, ns	N/A	N/A
Woorabinda	p = .15, ns	p = .31, ns	<i>p</i> < .05 HV ↑ Wo
Wujal Wujal	N/A	p = .37, ns	<i>p</i> < .05 HV ↑ Wu ↑
Yarrabah	N/A	p = .09, ns	<i>p</i> < .05 HV ↑ Ya ↑

#### 3.2.5.2.1 Aurukun

Of the 12 potential comparison divisions, five were assessed to be appropriate comparisons, with the division of Woorabinda showing the best match to Aurukun's pre-intervention trend in offences against property rates. No comparisons showed any significant post-intervention impact.

Overall, the difference-in-difference analyses suggest that the intervention has not reduced offences against property rates in Aurukun relative to the comparison division.

#### 3.2.5.2.2 Coen

From the 12 potential comparison divisions for Coen, ten were reviewed to be appropriate comparisons, with Palm Island, Wujal Wujal, and Kowanyama showing the best match to Coen's preintervention trend in offences against property. In eight of the ten comparisons, the intervention did not show a significant impact. Two analyses that showed a significant impact of the intervention compared the change in offences against property rates between Hope Vale and Bamaga, and Coen and Kowanyama; however, in these comparisons the post-intervention impact was due to rates either decreasing in Bamaga by 194 per 100,000 or increasing in Kowanyama by 184 per 100,000, rather than any change in Coen which decreased by 4 per 100,000.

Overall, the difference-in-difference analyses do not suggest that the intervention has had any impact on offences against property rates in Coen, above and beyond any changes seen in the absence of the intervention.

## 3.2.5.2.3 *Hope Vale*

Of the 12 potential comparison divisions for Hope Vale, nine were assessed to be appropriate comparisons, with the divisions of Wujal Wujal, Palm Island, Cherbourg, and Kowanyama demonstrating the best match to Hope Vale's pre-intervention trend in offences against property rates. Four of these nine comparisons did not reveal any significant post-intervention impact. The remaining comparisons between Hope Vale and Bamaga, Lockhart River, Woorabinda, Wujal Wujal, and Yarrabah found a significant impact of the intervention; however, the post-intervention impact was largely due to offences against property rates significantly increasing in Hope Vale following the intervention.

Overall, the difference-in-difference analyses suggest that the intervention may have increased offences against property rates in Hope Vale, over and above any changes seen in the absence of the intervention in many of the comparison divisions.

## *3.2.5.2.4 Summary*

The difference-in-difference analyses, across 24 analyses, suggest that the intervention had no significant impact on offences against property rates in the divisions of Aurukun, and Coen; however, there is some evidence that property crime rates increased in Hope Vale after the intervention, relative to the comparison divisions.

## 3.2.5.3 Meta-analyses

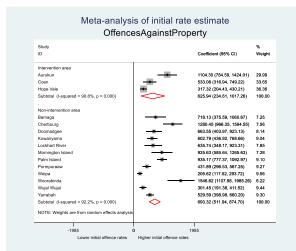


Figure 77 Initial rate estimate—Offences against property

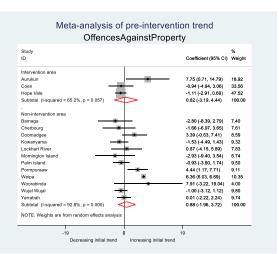


Figure 78 Pre-intervention trend—Offences against property

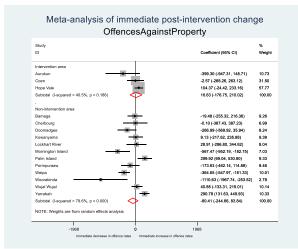


Figure 79 Immediate post-intervention change—offences against property

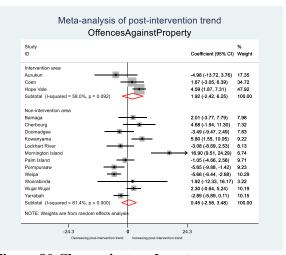


Figure 80 Change in trend postintervention—offences against property

## 3.2.5.3.1 Initial rate estimate

The results of the interrupted time series analysis indicate that there was significant variability in the initial rate of offences against property in 2001 in the intervention areas ( $I^2$ = 90.8% p<0.001), as well as amongst the comparison areas ( $I^2$ = 92.2% p<.001). Moderator analyses indicated that there was no significant difference between the initial rate of assault in the pooled intervention divisions compared to the pooled comparison divisions.

# 3.2.5.3.2 Pre-intervention trend

Of the intervention divisions, only Aurukun demonstrated a pre-intervention trend in offences against the person that was significantly different to zero (an increase of 7.75 per 100,000 per month; CI: 0.71 to 14.79), however the trend in Aurukun was not significantly different to that of the pooled comparison areas. In both the intervention and the comparison areas, the overall pooled effect is not

significantly different from zero. This effect was consistent within the intervention areas, with no statistically significant variation ( $I^2=65.2\%$ , p=.057), but there was highly significant variation amongst the comparison divisions ( $I^2=92.8\%$ , p<0.001).

## 3.2.5.3.3 Immediate post-intervention change

None of the individual intervention areas showed any significant and immediate change post-intervention, and overall, the intervention areas (when pooled) did not show a significant and immediate impact of the intervention, with no significant variation in effects across intervention divisions ( $I^2$ =40.5%, p=0.186). There was also no statistically significant and immediate change following the intervention in the comparison areas (when pooled), although there was significant variation in effects across comparison divisions ( $I^2$ =79.6%, p<0.001). Moderator analysis indicated that there was no significant difference between immediate impact of the intervention on the intervention and comparison groups.

#### 3.2.5.3.4 Post-intervention trend

Of the intervention divisions, only Hope Vale demonstrated a change in trend in offences against property that was significantly different to zero (an increase of 4.59 per 100,000 per month; CI: 1.87 to 7.31). Although Hope Vale showed an increase beyond that seen in several of the individual comparison areas, the trend in Hope Vale was not significantly different to that of the pooled comparison areas. Neither the pooled intervention areas nor the pooled comparison areas showed a significant change to the previous (pre-intervention) trend in offences against property. In the intervention areas, the effects were consistent across divisions with no significant variation between divisions (I<sup>2</sup>=58%, p=0.092), whilst in the comparison areas there was significant variation in effects (I<sup>2</sup>=81.4%, p<0.001). Moderator analysis indicated that there was no significant difference between groups in the change in the trend in offences against property.

## 3.2.5.3.5 Summary

The difference-in-difference analyses indicated that there was no overall impact of the intervention on offences against property. The difference-in-difference analyses also noted that Hope Vale had a significantly higher post-intervention level of offences than in several of the comparison areas. The meta-analyses of the interrupted time series analyses are consistent with these results, and demonstrate that this was due not to an immediate impact of the intervention in Hope Vale, but to an increase in the trend, relative to several individual comparison areas. However, there was no significant difference seen in the effects in Hope Vale, relative to the pooled comparison areas. The difference between the results of the two different analyses is largely due to the limited number of appropriate comparisons available for the difference-in-difference analyses and the wide variability between outcomes in the individual comparison areas.

Overall, the meta-analyses of the interrupted time series analyses for offences against property indicate that was no significant difference between the pooled intervention areas and the pooled comparison areas in initial level of offending, pre-intervention trend, immediate post-intervention change, or post-intervention change to trend.

## 3.2.5.4 Regress monthly data on monthly CYIM clients

A series of ordinary least squares regressions were conducted to assess the relationship between the number of CYIM clients in a community at each month, and the offence rate in the corresponding police division. The resulting coefficients were then meta-analysed (see Methodology for detail).

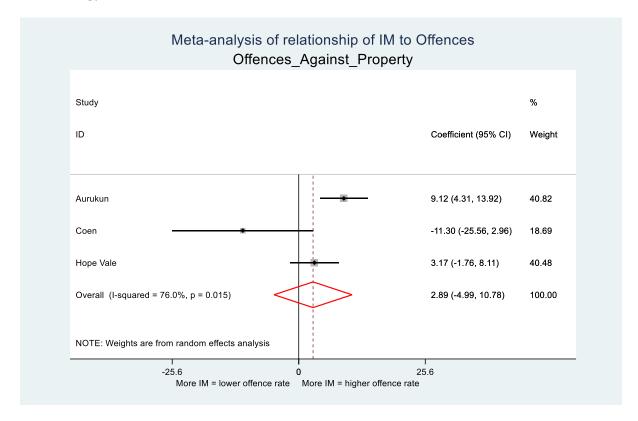


Figure 81 Meta-analysis of relationship of CYIM to offences—offences against property

The results of the regression analysis showed that Aurukun had a significant relationship between the number of CYIM clients in the community and the rate of offences against property in the corresponding police division, whereby as the number of CYIM clients in the community went up, so too did the offence rate. There was no overall significant relationship between CYIM and property offences in the pooled intervention divisions; however there was significant variability between communities.

# 3.2.6 Drug offences

## 3.2.6.1 *Graphing*

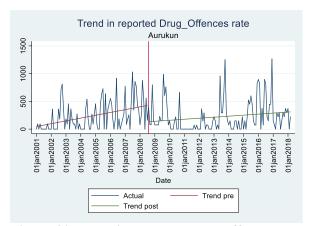


Figure 82 Trend in reported drug offences rate—Aurukun

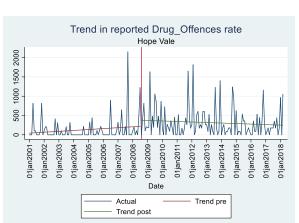


Figure 84 Trend in reported drug offences rate—Hope Vale

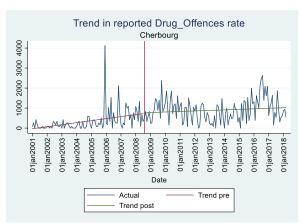


Figure 86 Trend in reported drug offences rate—Cherbourg

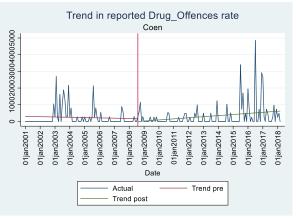


Figure 83 Trend in reported drug offences rate—Coen

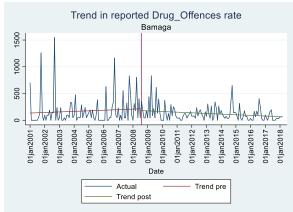


Figure 85 Trend in reported drug offences rate—Bamaga

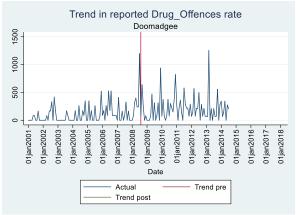


Figure 87 Trend in reported drug offences rate—Doomadgee

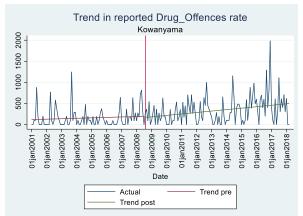


Figure 88 Trend in reported drug offences rate—Kowanyama

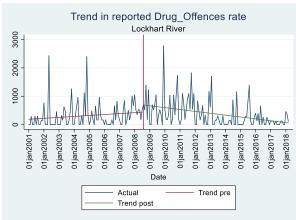


Figure 89 Trend in reported drug offences rate—Lockhart River

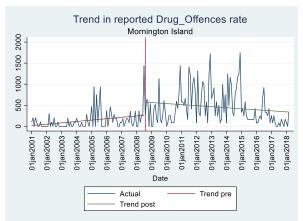


Figure 90 Trend in reported drug offences rate—Mornington Island

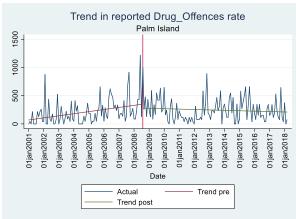


Figure 91 Trend in reported drug offences rate —Palm Island

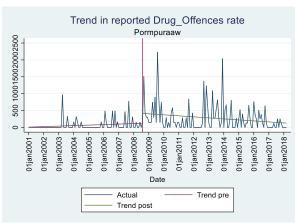


Figure 92 Trend in reported drug offences rate—Pormpuraaw

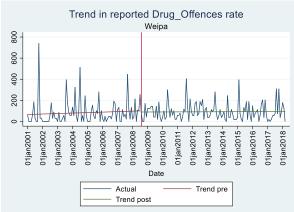


Figure 93 Trend in reported drug offences rate—Weipa

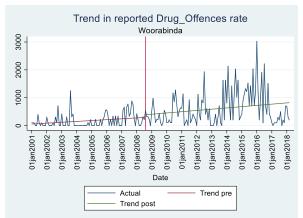


Figure 94 Trend in reported drug offences rate—Woorabinda

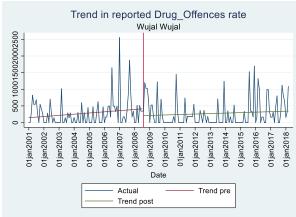


Figure 95 Trend in reported drug offences rate —Wujal Wujal

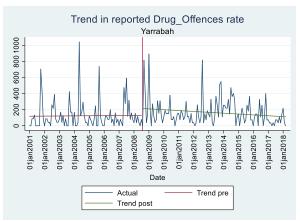


Figure 96 Trend in reported drug offences rate—Yarrabah

## 3.2.6.2 Difference-in-difference analyses

Table 9 Statistical overview of difference-in-difference results for drug offences

Drug Offences	Aurukun	Coen	Hope Vale
Bamaga	N/A	p = .18, ns	<i>p</i> < .001 HV <b>↑</b> Ba <b>↓</b>
Cherbourg	N/A	N/A	N/A
Doomadgee	<i>p</i> < .05, Au ↓ Do	N/A	p = .21, ns
Kowanyama	N/A	p = .30, ns	p = .93, ns
Lockhart River	p < .32, ns	p = .91, ns	p = .15, ns
Mornington Island	<i>p</i> < .001 Au ↓ MI ↑	N/A	p = .05, ns
Palm Island	p = .29, ns	N/A	<i>p</i> < .05 HV ↑ PI ↑
Pormpuraaw	N/A	p = .19, ns	p = .71, ns
Weipa	N/A	p = .47, ns	p < .05  HV   We 0
Woorabinda	<i>p</i> < .001 Au ↓ Wo	N/A	<i>p</i> < .05 HV ↑ Wo
Wujal Wujal	p = .86, ns	p = .47, ns	<i>p</i> < .05 HV ↑ Wu 0
Yarrabah	N/A	p = .71, ns	<i>p</i> < .05 HV <b>↑</b> Ya <b>↑</b>

#### 3.2.6.2.1 Aurukun

From the 12 potential comparison divisions for Aurukun, six were evaluated to be appropriate comparisons, with the division of Wujal Wujal demonstrating the best similarity to Aurukun's preintervention trend in rates of drug offences. In three of these six comparisons, there was no significant impact of the intervention. The three analyses that demonstrated a significant impact of the intervention compared the change in drug offence rates between Aurukun and Doomadgee, Mornington Island, and Woorabinda. In these three cases, the post-intervention impact was due to the drug offence rate significantly increasing in the comparison divisions rather than any great decrease in offence rates in Aurukun, where Aurukun increased by an average of approximately 15 per 100,000, Doomadgee increased by 102 per 100,000, Mornington Island increased by 318 per 100,000, and Woorabinda increased by 433 per 100,000.

Overall, the difference-in-difference analyses provide some evidence that the intervention has reduced drug offence rates in Aurukun relative to the increases seen in some divisions in the absence of the intervention.

#### 3.2.6.2.2 Coen

Of the 12 potential comparison divisions, seven were assessed to be appropriate comparisons, with Yarrabah showing the best match to Coen's pre-intervention trend in drug offence rates. No comparisons showed any significant post-intervention impact.

Overall, the difference-in-difference analyses suggest that the intervention has not reduced drug offence rates in Coen relative to the comparison division.

## 3.2.6.2.3 *Hope Vale*

Of the 12 potential comparison divisions for Hope Vale, 11 were assessed to be appropriate comparisons, with the division of Doomadgee demonstrating the best match to Hope Vale's preintervention trend in drug offence rates. Five of these 10 comparisons did not reveal any significant post-intervention impact. The remaining comparisons between Hope Vale and Bamaga, Palm Island, Weipa, Woorabinda, Wujal Wujal, and Yarrabah found a significant impact of the intervention; however, the post-intervention impact was largely due to the average rate of drug offence significantly increasing in Hope Vale following the intervention.

Overall, the difference-in-difference analyses provide some evidence to suggest that the average drug offence rate increased in Hope Vale compared to the average rate before the intervention, over and above any changes seen in the absence of the intervention in several of the comparison divisions. Summary

The difference-in-difference analyses, across 24 analyses, suggest that the intervention had no significant impact on drug offence rates in the division of Coen; however, there is some evidence that the intervention had a positive impact in Aurukun, and may have had a significant negative impact on drug offence rates in Hope Vale.

## 3.2.6.3 Meta-analyses

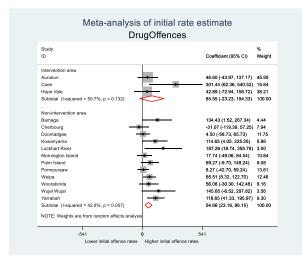


Figure 97 Initial rate estimate—drug offences

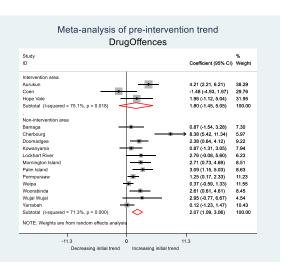


Figure 98 Pre-intervention trend—drug offences

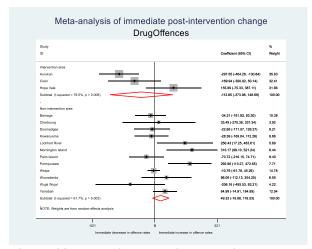


Figure 99 Immediate post-intervention change—drug offences

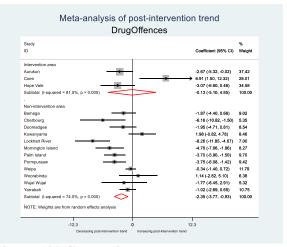


Figure 100 Change in trend postintervention—drug offences

## 3.2.6.3.1 Initial rate estimate

Of the intervention divisions, only Coen demonstrated an initial rate estimate in drug offences that was significantly different to zero (301.44 per 100,000; CI: 62.36 to 540.52), however the trend in Coen was not significantly different to that of the pooled comparison areas. The results of the interrupted time series analysis indicate that there was no significant variability in the initial rate of drug offences in 2001 in the intervention areas ( $I^2 = 50.7\%$  p=0.132), as well as amongst the comparison areas ( $I^2 = 42.8\%$  p=0.057). Moderator analyses indicated that there was no significant difference between the initial rate of drug offences in the pooled intervention divisions compared to the pooled comparison divisions.

#### 3.2.6.3.2 Pre-intervention trend

Of the intervention divisions, only Aurukun demonstrated a pre-intervention trend in drug offences that was significantly different to zero (an increase of 4.21 per 100,000 per month; CI: 2.21 to 6.21), however the trend in Aurukun was not significantly different to that of the pooled comparison areas. The overall pooled effect in the intervention areas is not significantly different from zero; however there was significant variability between intervention divisions ( $I^2=75.1\%$ , p<0.05). Conversely, the overall pooled effect of the comparison areas was a significant increasing trend in the rate of drug offences over time prior to the intervention period (2.07 per 100,000 per month; CI: 1.09 to 3.06) but there was highly significant variation amongst the comparison divisions ( $I^2=71.3\%$ , p<0.001).

## 3.2.6.3.3 Immediate post-intervention change

There was significant variability in the immediate impact of the intervention amongst both the intervention areas ( $I^2$ =79.5%, p<0.01) and the comparison areas ( $I^2$ =61.7%, p<0.01). Immediately following the intervention there was a statistically significant decrease in drug offences in Aurukun (-297.55 per 100,000; CI: -464.26 to -130.84) and this was a significantly greater than the (non-significant) change seen in the pooled comparison group. Neither Coen nor Hope Vale showed any significant and immediate change post-intervention, and overall, neither the pooled intervention areas nor the pooled comparison areas showed any significant and immediate impact of the intervention.

#### 3.2.6.3.4 Post-intervention trend

Both Aurukun and Coen demonstrated a change in trend in drug offences that was significantly different to zero. There was a decrease in the trend in Aurukun (-2.67 per 100,000 per month; CI: -5.32 to -0.02), but a significant increase to the trend in Coen (6.91 per 100,000 per months; CI: 1.50 to 12.32). The effect in Aurukun was not significantly different to the reduction seen in the pooled comparison areas (-2.35 per 100,000 per month; CI: -3.77 to -0.93), but Coen's increase was significantly different to the change in the pooled comparison area. There was significant variability in effects among both the intervention areas ( $I^2=81.5\%$ , p<0.01) and the comparison areas ( $I^2=74\%$ , p<0.001). Overall, there was no significant change in the trend in drug offences in the intervention areas, although this is largely due to the highly contrasting impacts in different divisions.

## 3.2.6.3.5 Summary

The difference-in-difference analyses suggest that the intervention had no significant impact on drug offence rates in Coen, a positive impact in Aurukun, and may have had a negative impact in Hope Vale relative to some comparison divisions. The difference between the results of the two different analyses is largely due to the limited number of appropriate comparisons available for the difference-in-difference analyses and the wide variability between outcomes in the individual comparison areas.

The difference-in-difference analysis for Aurukun indicated that there was a significant decrease in the average rate of drug offences after the intervention, relative to the comparison area. The meta-analyses of the interrupted time series analyses support this conclusion, and identifies that this decrease was due to an immediate and sustained decrease in drug offences, but that there was no significant change in the post-intervention trend relative to the comparison area. Prior to the intervention, there was a significant increasing trend in the drug offence rate in both Aurukun and the comparison area. Immediately following the intervention, drug offence rates increased significantly in the comparison areas, but significantly decreased in Aurukun relative to the comparison area.

Conversely, in Coen, the difference-in-difference analyses found no significant difference between Coen and any of the individual comparison divisions. Whilst the pre-post difference in Coen is not significantly different to that in any of the comparison divisions, the more nuanced interrupted time series analysis shows an increase in the *trend* in drug offences, significantly beyond the pooled comparison (and beyond all but three of the individual comparison areas). We therefore conclude that there has been a significant relative increase in drug offences, following the intervention in Coen.

Finally, the difference-in-difference analyses suggested that the intervention may have had a negative impact on drug offence rates in Hope Vale (although this effect was not seen when the analysis was run against the best matched comparison area). The interrupted time series analysis gives a more nuanced interpretation of the trends in the data, and demonstrates that there was no significant post-intervention change in the rate of drug offences in Hope Vale, relative to the levels and trends of the monthly outcome in the comparison area.

Overall, the meta-analyses of the interrupted time series analyses for drug offences indicate that none of the parameters were significantly different between pooled intervention divisions and comparison divisions. There was however a high degree of variability amongst the intervention divisions, with Aurukun showing a positive impact of the intervention, and Coen showing a negative impact.

## 3.2.6.4 Regress monthly data on monthly CYIM clients

A series of ordinary least squares regressions were conducted to assess the relationship between the number of CYIM clients in a community at each month, and the offence rate in the corresponding police division. The resulting coefficients were then meta-analysed (see Methodology for detail).

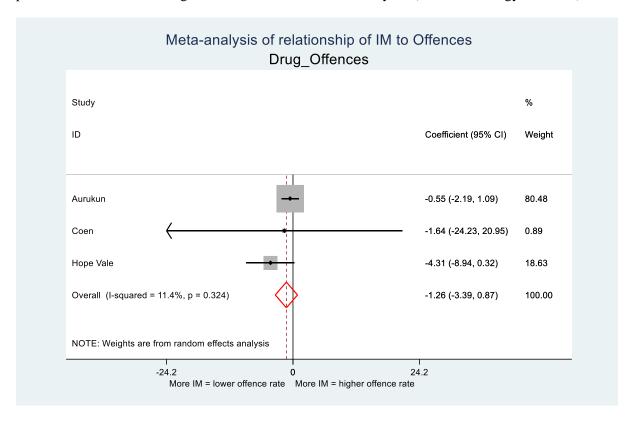


Figure 101 Meta-analysis of relationship of CYIM to offences—drug offences

The results of the regression analysis showed none of the communities showed a significant relationship between the number of CYIM clients in the community and the rate of drug offences in the corresponding police division. There was no overall significant relationship between CYIM and drug offences in the pooled intervention divisions, with no significant variability between communities.

# 3.2.7 Liquor offences (excluding drunkenness)

## *3.2.7.1 Graphing*

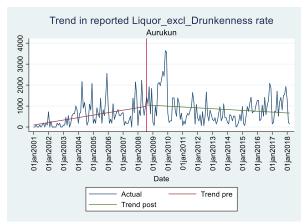


Figure 102 Trend in reported liquor offences excluding drunkenness rate—Aurukun

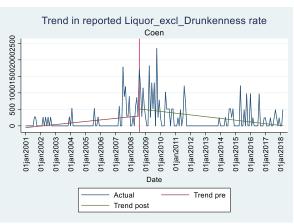


Figure 103 Trend in reported liquor offences excluding drunkenness rate—Coen

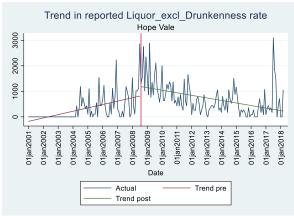


Figure 104 Trend in reported liquor offences excluding drunkenness rate—Hope Vale

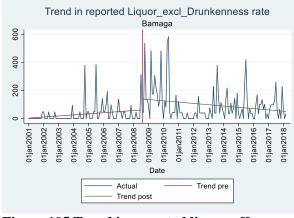


Figure 105 Trend in reported liquor offences excluding drunkenness rate—Bamaga

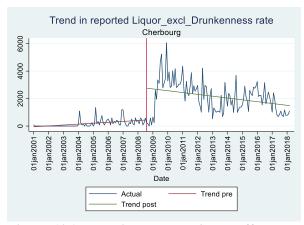


Figure 106 Trend in reported liquor offences excluding drunkenness rate—Cherbourg

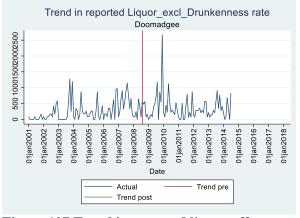


Figure 107 Trend in reported liquor offences excluding drunkenness rate—Doomadgee

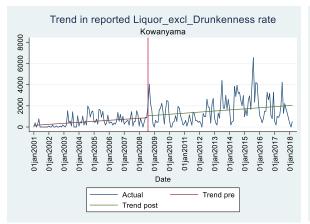


Figure 108 Trend in reported liquor offences excluding drunkenness rate—Kowanyama

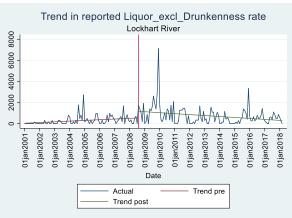


Figure 109 Trend in reported liquor offences excluding drunkenness rate—Lockhart River

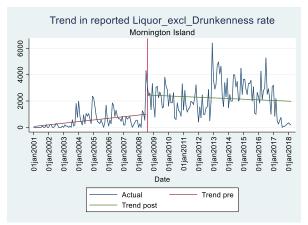


Figure 110 Trend in reported liquor offences excluding drunkenness rate—Mornington Island

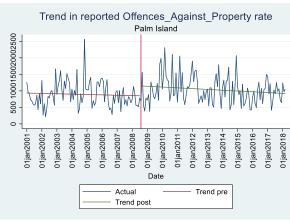


Figure 111 Trend in reported liquor offences excluding drunkenness rate—Palm Island

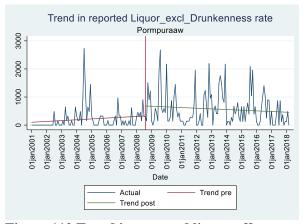


Figure 112 Trend in reported liquor offences excluding drunkenness rate—Pormpuraaw

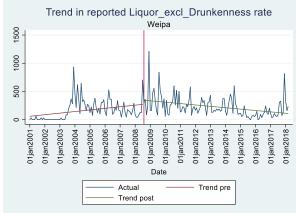


Figure 113 Trend in reported liquor offences excluding drunkenness rate—Weipa

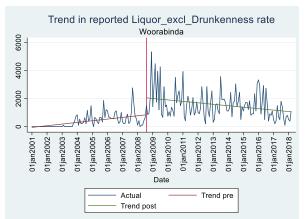


Figure 114 Trend in reported liquor offences excluding drunkenness rate—Woorabinda

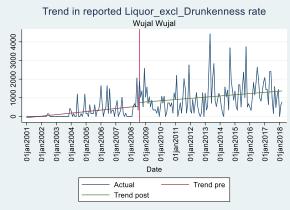
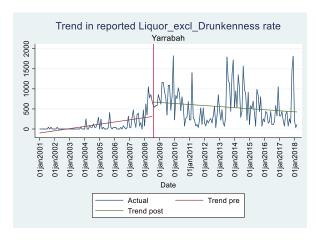


Figure 115 Trend in reported liquor offences excluding drunkenness rate—Wujal Wujal



## 3.2.7.2 Difference-in-difference analyses

Table 10 Statistical overview of difference-in-difference results for liquor offences

Liquor excl.	Aurukun	Coen	Hope Vale
Drunkenness			
Bamaga	N/A	N/A	N/A
Cherbourg	N/A	<i>p</i> < .001 Co <b>↑</b> Ch <b>↑</b>	N/A
Doomadgee	N/A	p = .67, ns	N/A
Kowanyama	<i>p</i> < .001 Au ↑ Ko	<i>p</i> < .001 Co ↑ Ko ↑	<i>p</i> < .001 HV <b>↑</b> Ko <b>↑</b>
Lockhart River	p < .38, ns	<i>p</i> < .05 Co <b>↑</b> LR <b>↑</b>	
Mornington	<i>p</i> < .001 Au <b>↑</b> MI	<i>p</i> < .001 Co ↑ MI ↑	$p < .001 \text{ HV} \uparrow \text{MI} \uparrow$
Island	<b>^</b>		
Palm Island	N/A	<i>p</i> < .001 Co <b>↑</b> PI <b>↑</b>	N/A
Pormpuraaw	N/A	<i>p</i> < .05 Co <b>↑</b> Po <b>↑</b>	N/A
Weipa	N/A	p = .21, ns	N/A
Woorabinda	<i>p</i> < .001 Au ↑ Wo	N/A	<i>p</i> < .001 HV ↑ Wo
Wujal Wujal	<i>p</i> < .001 Au ↑ Wu ↑	<i>p</i> < .001 Co ↑ Wu ↑	<i>p</i> < .05 HV ↑ Wu ↑
Yarrabah	N/A	<i>p</i> < .001 Co <b>↑</b> Ya <b>↑</b>	N/A

## 3.2.7.2.1 Aurukun

From the 12 potential comparison divisions for Aurukun, five were assessed to be appropriate comparisons, with the divisions of Woorabinda and Mornington Island demonstrating the best match to Aurukun's pre-intervention trend in liquor offence rates. One comparison did not reveal any significant post-intervention impact. The four comparisons between Aurukun and Kowanyama, Mornington Island, Woorabinda, and Wujal Wujal found a significant impact of the intervention; however, the post-intervention impact was largely due to liquor offence rates increasing significantly more in the comparison divisions more than in Aurukun following the intervention.

Overall, the difference-in-difference analyses suggest that the intervention may have limited the increase of liquor offence rates in Aurukun, over and above any changes seen in the absence of the intervention.

### 3.2.7.2.2 Coen

From the 12 potential comparison divisions for Coen, ten were assessed to be appropriate comparisons, with the division Palm Island showing the best match to Coen's pre-intervention trend in liquor offence rates. Two comparisons did not reveal any significant post-intervention impact. The eight comparisons between Coen and Cherbourg, Kowanyama, Lockhart River, Mornington Island, Palm Island, Pormpuraaw, Wujal Wujal, and Yarrabah revealed a significant impact of the

intervention; however, the post-intervention impact was largely due to liquor offence rates increasing significantly more in the comparison divisions more than in Coen following the intervention.

Overall, the difference-in-difference analyses suggest that the intervention may have limited the increase of liquor offence rates in Coen, over and above any changes seen in the absence of the intervention.

## *3.2.7.2.3 Hope Vale*

Of the 12 potential comparison divisions for Hope Vale, four were evaluated to be appropriate comparisons, with the division Mornington Island showing the best match to Hope Vale's preintervention trend in liquor offence rates. All four comparisons between Hope Vale and Kowanyama, Mornington Island, Woorabinda, and Wujal Wujal demonstrated a significant impact of the intervention; however, the post-intervention impact was largely due to liquor offence rates increasing significantly greater in the comparison divisions more than in Hope Vale following the intervention.

Overall, the difference-in-difference analyses suggest that the intervention may have limited the increase of liquor offence rates in Hope Vale, over and above any changes seen in the absence of the intervention.

#### 3.2.7.2.4 Summary

The difference-in-difference analyses, across 19 analyses, suggest that the intervention had a small positive impact on liquor offence rates in the divisions of Aurukun, Coen, and Hope Vale, where the intervention appears to have acted as a restraining measure, limiting the extent of the increases seen in many of the comparison areas.

## 3.2.7.3 Meta-analyses

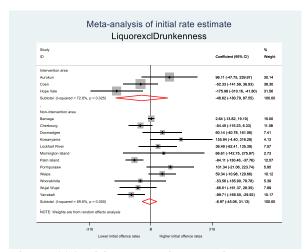


Figure 116 Initial rate estimate—liquor offences

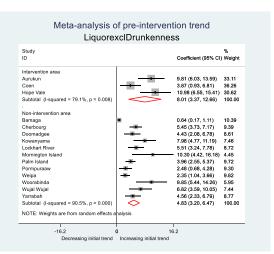


Figure 117 Pre-intervention trend—liquor offences

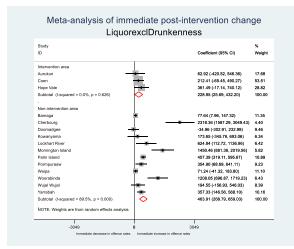


Figure 118 Immediate post-intervention change—liquor offences

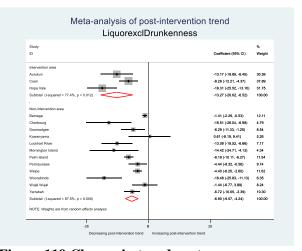


Figure 119 Change in trend postintervention—liquor offences

## 3.2.7.3.1 Initial rate estimate

Of the intervention divisions, only Hope Vale demonstrated an initial rate estimate in liquor offences that was significantly different to zero (-175.98 per 100,000; CI: -310.16 to -41.8), however the trend in Hope Vale was not significantly different to that of the pooled comparison areas. The results of the interrupted time series analysis indicate that there was significant variability in the initial rate of liquor offences in 2001 in the intervention areas ( $I^2$ = 72.8% p<0.05), as well as amongst the comparison areas ( $I^2$ = 69.8% p<0.001). Moderator analyses indicated that there was no significant difference between the initial rate of liquor offences in the pooled intervention divisions compared to the pooled comparison divisions. However, it is important to note that the negative parameter estimates for several divisions are due to a time series that begins with a very low level of offences, but is followed by a rapidly increasing trend. Therefore the results of this particular analysis should be interpreted with caution.

## 3.2.7.3.2 Pre-intervention trend

All three of the intervention divisions showed a significantly increasing trend in liquor offences prior to the intervention, along with a significantly increasing pooled effect (an increase of 8.01 per 100,000 per month; CI: 3.37 to 12.66). Only Hope Vale showed a trend that was significantly different to that seen in the pooled comparison areas. The overall pooled effect in the comparison areas is also a significantly increasing trend (4.83 per 100,000 per month: CI: 3.20 to 6.47). There was significant variability between intervention divisions (I<sup>2</sup>=79.1%, p<0.05) as well as comparison divisions (I<sup>2</sup>=90.5%, p<0.001). However, moderator analysis showed that there was no significant difference between the trends in the pooled intervention areas and in the pooled comparison areas.

## 3.2.7.3.3 Immediate post-intervention change

None of the individual intervention areas showed any significant and immediate change post-intervention; however, the intervention areas (when pooled) did not show a significant and immediate impact of the intervention resulting in more offences (228.95 per 100,000; CI: 25.69 to 432.2), with no significant variation in effects across intervention divisions (I²=0%, p=0.626). There was also a statistically significant and immediate increase in offences following the intervention in the comparison areas (when pooled) (463.91 per 100,000; CI: 268.79 to 659.03), although there was significant variation in effects across comparison divisions (I²=89.5%, p<0.001). Moderator analysis indicated that there was no significant difference between immediate impact of the intervention on the intervention and comparison groups.

#### 3.2.7.3.4 Post-intervention trend

All three intervention areas demonstrated a significant decrease in the trend in liquor offences: Aurukun (-13.17 per 100,000 per month; CI: -19.89 to -6.45); Coen (-8.29 per 100,000 per months; CI: -12.21 to -4.37); Hope Vale (-19.31 per 100,000 per month; CI: -25.52 to -13.10). The decrease in offence rates in Hope Vale was significantly greater than that seen in the comparison divisions overall. The overall pooled effect was a significant decrease in trend in both the intervention areas (-13.27 per 100,000 per month; CI: -20.02 to -6.52) and the comparison areas (-6.72 per 100,000 per month; CI: -9.57 to -4.24). There was significant variability in effects among both the intervention areas ( $I^2$ =77.4%, p<0.05) and the comparison areas ( $I^2$ =87.5%, p<0.001). Moderator analysis showed that there was no significant difference between effects in the pooled intervention area and the pooled comparison area.

#### 3.2.7.3.5 Summary

The difference-in-difference analyses for liquor offences (excluding drunkenness) noted that there were average increases in all divisions after the intervention, but that the increase was significantly greater in the comparison divisions, and suggested that the intervention showed a positive impact on offences. The difference in the results of the two analyses can be best described as an issue of aggregation. The difference-in-difference analyses show a significant post-intervention difference between groups when the months pre- and post-intervention are aggregated to an average; however, this is as a result of aggregating smaller, non-significant differences over the longer (disaggregated) trends in the data. The interrupted time series analyses gives a more nuanced interpretation of the trends in the data.

Overall, the meta-analyses of the interrupted time series analyses for liquor offences (excluding drunkenness) indicate that only Hope Vale's decrease in trend following the intervention was significantly greater than that seen in the pooled comparison area. Overall, the results indicate that there was no significant difference between the pooled intervention areas and the pooled comparison areas in initial level of offending, pre-intervention trend, immediate post-intervention change, or post-intervention change to trend. Both the intervention area and the comparison area saw a significant immediate increase in offences followed by a significant decrease in the trend.

## 3.2.2.9 Regress monthly data on monthly CYIM clients

A series of ordinary least squares regressions were conducted to assess the relationship between the number of CYIM clients in a community at each month, and the offence rate in the corresponding police division. The resulting coefficients were then meta-analysed (see Methodology for detail).

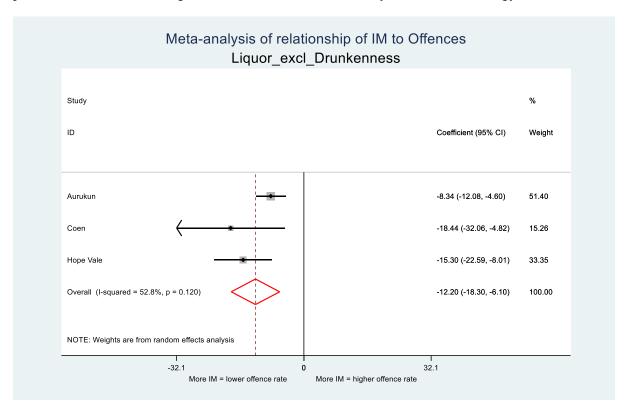


Figure 120 Meta-analysis of relationship of CYIM to offences—liquor excluding drunkenness

The results of the regression analysis showed that all three of the communities had a significant relationship between the number of CYIM clients in the community and the rate of liquor offences (excluding drunkenness) in the corresponding police division, whereby as the number of CYIM clients increased, the rate of offences decreased. There was an overall significant relationship between CYIM and liquor offences in the pooled intervention divisions, with no significant variability between communities.

## 3.2.8 Breach of domestic violence protection orders

## 3.2.8.1 *Graphing*

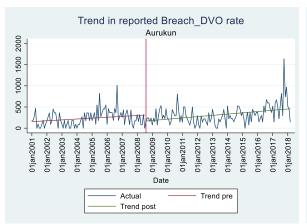


Figure 121 Trend in reported breach DVO rate—Aurukun

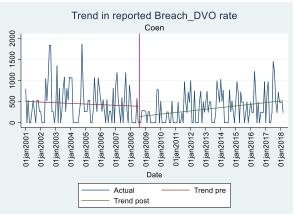


Figure 122 Trend in reported breach DVO rate—Coen

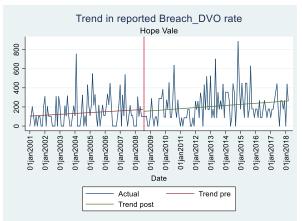


Figure 123 Trend in reported breach DVO rate—Hope Vale

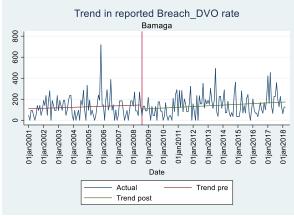


Figure 124 Trend in reported breach DVO rate—Bamaga

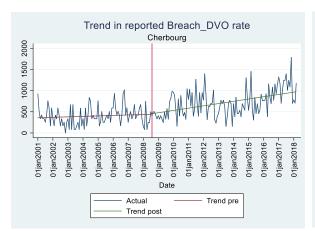


Figure 125 Trend in reported breach DVO rate—Cherbourg

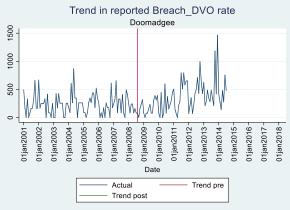


Figure 126 Trend in reported breach DVO rate—Doomadgee

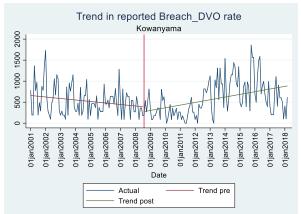
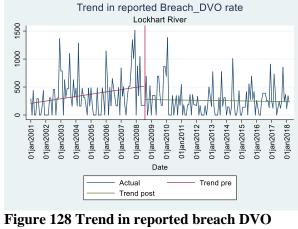


Figure 127 Trend in reported breach DVO rate-Kowanyama



rate—Lockhart River

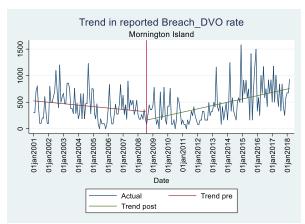


Figure 129 Trend in reported breach DVO rate—Mornington Island

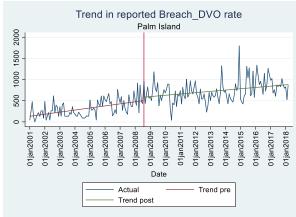


Figure 130 Trend in reported breach DVO rate—Palm Island

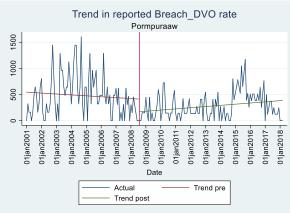


Figure 131 Trend in reported breach DVO rate—Pormpuraaw

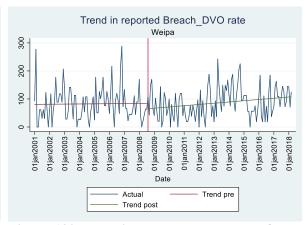


Figure 132 Trend in reported breach DVO rate—Weipa

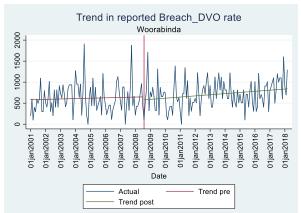


Figure 133 Trend in reported breach DVO rate—Woorabinda

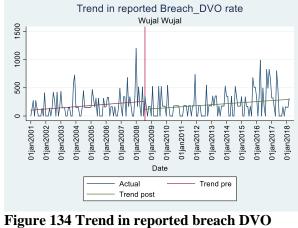


Figure 134 Trend in reported breach DVO rate—Wujal Wujal

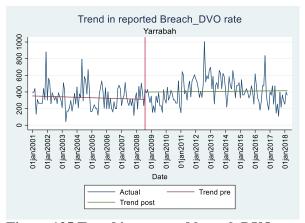


Figure 135 Trend in reported breach DVO rate—Yarrabah

## 3.2.8.2 Difference-in-difference analyses

**Table 11** Statistical overview of difference-in-difference results for breach of domestic violence protection orders

Breach DVO	Aurukun	Coen	Hope Vale
Bamaga	<i>p</i> < .05 Au ↑ Ba 0	<i>p</i> < .05 Co <b>♥</b> Ba 0	$p < .05 \text{ HV} \uparrow \text{Ba } 0$
Cherbourg	<i>p</i> < .001 Au ↑ Ch ↑	<i>p</i> < .001 Co <b>♥</b> Ch <b>↑</b>	<i>p</i> < .001 HV ↑ Ch
Doomadgee	p = .43, ns	<i>p</i> < .01, Co <b>♥</b> Do <b>↑</b>	p = .24, ns
Kowanyama	N/A	<i>p</i> < .05 Co <b>♥</b> Ko <b>↑</b>	N/A
Lockhart River	<i>p</i> < .001 Au ↑ LR ↓	p = .90, ns	<i>p</i> < .001 HV ↑ LR ↓
Mornington Island	N/A	<i>p</i> < .05 Co <b>Ψ</b> MI ↑	N/A
Palm Island	N/A	N/A	N/A
Pormpuraaw	<i>p</i> < .001 Au ↑ Po <b>↓</b>	p = .22, ns	<i>p</i> < .001 HV ↑ Po ↓
Weipa	N/A	$p < .05 \text{ Co } \Psi \text{ We } 0$	p < .05  HV   We 0
Woorabinda	p = .82, ns	<i>p</i> < .05 Co <b>♥</b> Wo <b>↑</b>	p = .64, ns
Wujal Wujal	p = .18, ns	<i>p</i> < .05 Co <b>♥</b> Wu ↑	p = .24, ns
Yarrabah	N/A	<i>p</i> < .05 Co ♥ Ya ↑	p = .86, ns

### 3.2.8.2.1 Aurukun

Of the 12 potential comparison divisions for Aurukun, seven were evaluated to be appropriate comparisons, with the division of Wujal Wujal demonstrating the best similarity to Aurukun's preintervention trend in breaches of domestic violence protection order rates. In three of these six comparisons, there was no significant impact of the intervention. Two analyses between Aurukun and Lockhart River, and Aurukun and Pormpuraaw found a significant impact post-intervention impact; however, this was due to a greater decrease in breaches of domestic violence protection order rates in the comparison division than in Aurukun, which showed an increase. The analysis between Aurukun and Bamaga also found a significant impact of the intervention, though this post-intervention impact was due to the increase in breaches of domestic violence protection order rates in Aurukun. In contrast, the significant post-intervention impact between Aurukun and Cherbourg was due to a much greater increase of offences in Cherbourg than in Aurukun, where Aurukun increased by 82 per 100,000 and Cherbourg increased by 314 per 100,000.

Overall, the difference-in-difference analyses do not suggest that the intervention has reduced breaches of domestic violence protection order rates in Aurukun above and beyond any changes seen in the absence of the intervention.

#### 3.2.8.2.2 Coen

From the 12 potential comparison divisions for Coen, 11 were assessed to be appropriate comparisons, with the division of Pormpuraaw showing the best match to Coen's pre-intervention trend in breaches of domestic violence protection order rates. Two comparisons did not reveal any significant post-intervention impact. The nine comparisons between Coen and Bamaga, Cherbourg, Doomadgee, Kowanyama, Mornington Island, Weipa, Woorabinda, Wujal Wujal, and Yarrabah revealed a significant post-intervention impact; these significant findings were largely due to breaches of domestic violence protection order rates decreasing significantly more in Coen than in the comparison divisions, where offence rates increased.

Overall, the difference-in-difference analyses provide strong evidence that the intervention decreased breaches in domestic violence protection order rates in Coen, over and above any changes seen in the absence of the intervention.

## 3.2.8.2.3 *Hope Vale*

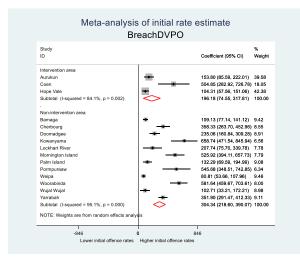
From the 12 potential comparison divisions for Hope Vale, nine were assessed to be appropriate comparisons, with the division of Woorabinda and Cherbourg showing the best match to Hope Vale's pre-intervention trend in breaches of domestic violence protection order rates. Four comparisons did not reveal any significant post-intervention impact. Two of the nine comparisons between Hope Vale and Bamaga, and Hope Vale and Weipa revealed a significant impact of the intervention; however, the post-intervention impact was largely due to breaches of domestic violence protection order rates significantly increasing in Hope Vale following the intervention whilst remaining relatively stable in the comparison areas. For two comparisons between Hope Vale and Lockhart River, and Hope Vale and Pormpuraaw a significant post-intervention impact was found, though this was largely due to breaches of domestic violence protection order rates decreasing significantly more in the comparison divisions than in Hope Vale, which actually increased in offence rates. The comparison between Hope Vale and Cherbourg also had a significant post-intervention impact, though this was because of a significant greater increase in breaches of domestic violence protection order rates in Cherbourg than in Hope Vale, where Hope Vale increased by 70 per 100,000 and Cherbourg increased by 314 per 100,000.

Given the mixed results, overall the difference-in-difference analyses do not suggest that the intervention has reduced breaches in domestic violence protection order rates in Hope Vale, over and above any changes seen in the absence of the intervention.

### 3.2.8.2.4 Summary

The difference-in-difference analyses, across 27 analyses, suggest that the intervention had no significant impact on breaches of domestic violence protection order rates in Aurukun or Hope Vale; however, there is strong evidence that the intervention had a significant positive impact on breaches of domestic violence protection order rates in Coen.

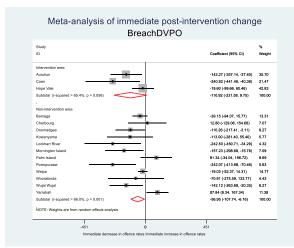
### 3.2.8.3 Meta-analyses

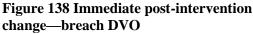


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Figure 136 Initial rate estimate—breach DVO

Figure 137 Pre-intervention trend—breach DVO





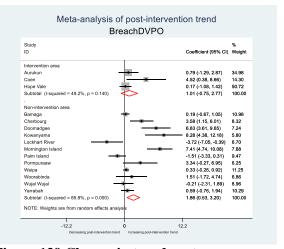


Figure 139 Change in trend postintervention—breach DVO

## 3.2.8.3.1 Initial rate estimate

The results of the interrupted time series analysis indicate that there was significant variability in the initial rate of breach of domestic violence protection orders in 2001 in the intervention areas ( $I^2 = 84.1\%$  p<.0.01), as well as amongst the comparison areas ( $I^2 = 95.1\%$  p<.001). Moderator analyses indicated that there was no significant difference between the initial rate of breach of domestic violence protection orders in the pooled intervention divisions compared to the pooled comparison divisions.

### 3.2.8.3.2 Pre-intervention trend

Of the intervention divisions, only Aurukun showed a significantly increasing trend in breach of domestic violence protection orders prior to the intervention (1.72 per 100,000 per month; CI 0.29 to 3.15); however this trend is not significantly different to the (non-significant) trend in the pooled

control areas. The overall pooled effect in both the intervention and comparison areas are not significantly different from zero. There was no significant variability amongst intervention divisions ( $I^2$ =24.9%, p=0.264), but significant variability amongst comparison divisions ( $I^2$ =80.3%, p<0.001). However, moderator analysis showed that there was no significant difference between the trends in the pooled intervention areas and in the pooled comparison areas.

## 3.2.8.3.3 Immediate post-intervention change

Both Aurukun (-142.27 per 100,000; CI: -257.14 to -27.4) and Coen (-240.92 per 100,000; CI: -441.46 to -40.38) showed an immediate decrease in the rate of domestic violence protection orders breaches following the intervention; however these decreases were not significantly greater than that seen in the pooled comparison area. The effect in the pooled intervention area was not significantly different from zero, and there was no significant variability amongst the intervention areas (I²=65.4%, p=0.056). The pooled comparison area showed an immediate and significant reduction in domestic violence protection orders breaches following the intervention (-56.95 per 100,000; CI: -107.74 to -6.16), although there was significant variability amongst the comparison areas (I²=66%, p<0.01). Moderator analysis indicated that there was no significant difference between immediate impact of the intervention on the intervention and comparison groups.

#### 3.2.8.3.4 Post-intervention trend

Of the intervention areas, only Coen demonstrated a significant increase in the trend in domestic violence protection orders breach offences (4.52 per 100,000 per months; CI: -0.38 to 8.66), but this effect was not significantly different from the increase seen in the pooled comparison areas. The pooled intervention areas showed no significant change in the trend following the intervention, and there was no significant variation amongst intervention areas (I<sup>2</sup>=49.2%, p=0.14). The pooled comparison areas showed a significant increase in the trend in domestic violence protection orders breaches (1.86 per 100,000 per month; CI: -0.53 to 1.94); however there was significant variability amongst comparison areas (I<sup>2</sup>=85.8%, p<0.001). Moderator analysis showed that there was no significant difference between effects in the pooled intervention area and the pooled comparison area.

### 3.2.8.3.5 Summary

The difference-in-difference analyses suggested a positive impact of the intervention in Coen, because the average rate of domestic violence protection orders breach offences decreased significantly beyond the increase seen in the comparison area. However, the results from the interrupted time series analyses shows no significant difference between Coen and the pooled comparison area in any of the key parameters. In both Coen and the pooled comparison area, there was no significant pre-intervention trend, the rate of domestic violence protection orders breach offences reduced immediately following the intervention, and there was a significant increasing trend in offences following the intervention. The difference in the results of the two analyses can be best described as an issue of aggregation. The difference-in-difference analysis shows a significant post-intervention difference between groups when the months pre- and post-intervention are aggregated to an average; however, this is as a result of aggregating smaller, non-significant differences over the longer (disaggregated) trends in the data. The time series analysis gives a more nuanced interpretation of the trends in the data.

Overall, the meta-analyses of the interrupted time series analyses for domestic violence protection orders breach offences indicate that was no significant difference between the pooled intervention

areas and the pooled comparison areas in initial level of offending, pre-intervention trend, immediate post-intervention change, or post-intervention change to trend.

## 3.2.8.4 Regress monthly data on monthly CYIM clients

A series of ordinary least squares regressions were conducted to assess the relationship between the number of CYIM clients in a community at each month, and the offence rate in the corresponding police division. The resulting coefficients were then meta-analysed (see Methodology for detail).

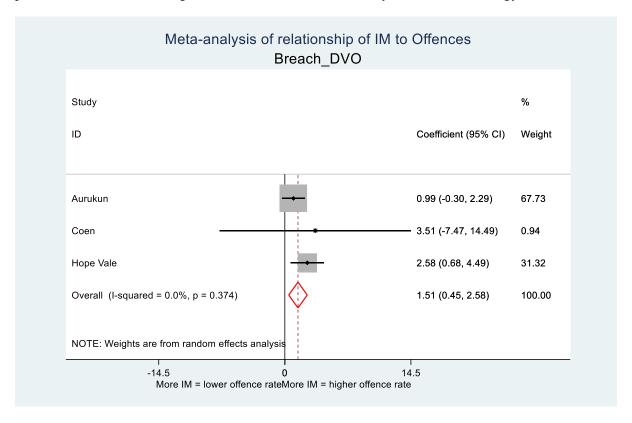


Figure 140 Meta-analysis of relationship of CYIM to offences—breach DVO

The results of the regression analysis showed only Hope Vale had a significant relationship between the number of CYIM clients in the community and the rate of breach of domestic violence protection order offences in the corresponding police division, whereby as the number of CYIM clients increased, so too did the breach rate. There was an overall significant relationship between CYIM and breach offences in the pooled intervention divisions, with CYIM having a negative relationship to offences, with no significant variability between communities.

## 3.2.8 Good Order Offences

## 3.2.8.1 *Graphing*

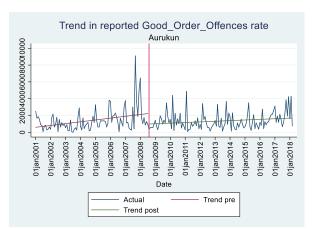


Figure 141 Trend in reported good order offences rate—Aurukun

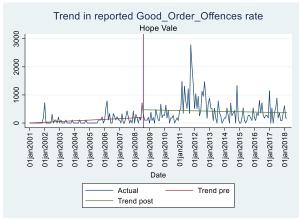


Figure 143 Trend in reported good order offences rate—Hope Vale

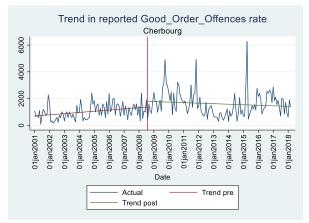


Figure 145 Trend in reported good order offences rate—Cherbourg

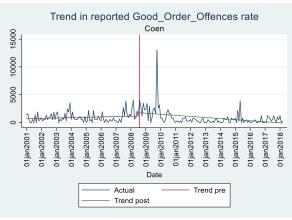


Figure 142 Trend in reported good order offences rate—Coen

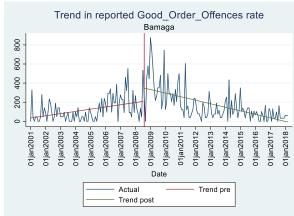


Figure 144 Trend in reported good order offences rate—Bamaga

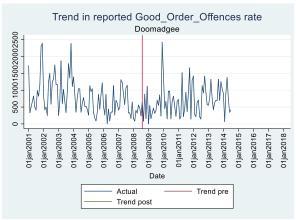


Figure 146 Trend in reported good order offences rate—Doomadgee

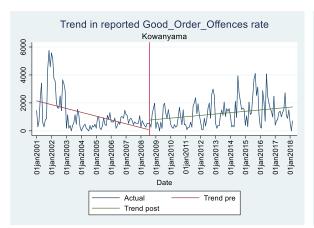


Figure 147 Trend in reported good order offences rate—Kowanyama

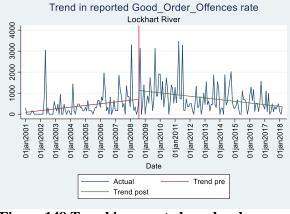


Figure 148 Trend in reported good order offences rate—Lockhart River

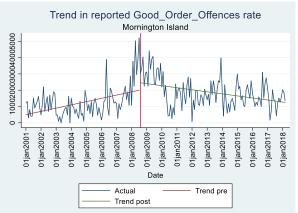


Figure 149 Trend in reported good order offences rate—Mornington Island

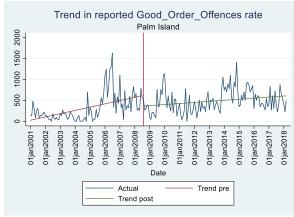


Figure 150 Trend in reported good order offences rate—Palm Island

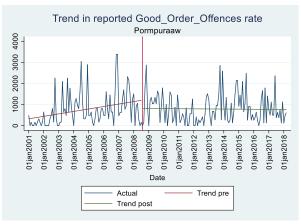


Figure 151 Trend in reported good order offences rate—Pormpuraaw

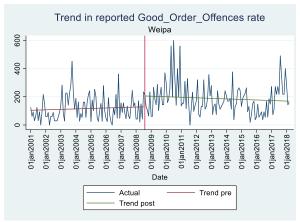


Figure 152 Trend in reported good order offences rate—Weipa

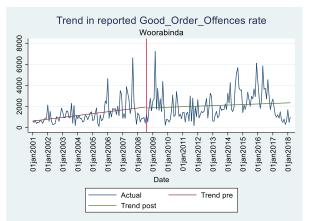


Figure 153 Trend in reported good order offences rate—Woorabinda

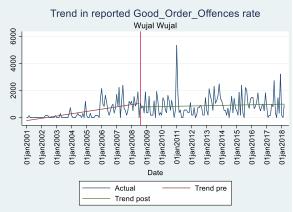


Figure 154 Trend in reported good order offences rate—Wujal Wujal

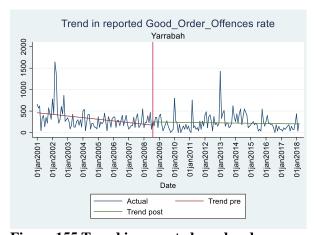


Figure 155 Trend in reported good order offences rate—Yarrabah

## 3.2.8.2 Difference-in-difference analyses

Table 12 Statistical overview of difference-in-difference results for good order offences

Good Order Offences	Aurukun	Coen	Hope Vale
Bamaga	N/A	p = .42, ns	<i>p</i> < .001 HV ↑ Ba ↑
Cherbourg	$p < .05 \text{ Au } \checkmark \text{ Ch } \spadesuit$	<i>p</i> < .05 Co <b>∨</b> Ch <b>↑</b>	N/A
Doomadgee	N/A	N/A	N/A
Kowanyama	N/A	N/A	N/A
Lockhart River	$p < .05 \text{ Au } \checkmark \text{ LR } \spadesuit$	$p < .05 \text{ Co } \text{$\psi$ LR $\ldot$}$	N/A
Mornington Island	$p < .05 \text{ Au } \checkmark \text{ MI } \spadesuit$	<i>p</i> < .05 Co <b>∨</b> MI <b>↑</b>	N/A
Palm Island	p = .17, ns	p = .15, ns	N/A
Pormpuraaw	p = .62, ns	p = .55, ns	N/A
Weipa	N/A	p = .35, ns	N/A
Woorabinda	<u> </u>	<i>p</i> < .001 Co <b>↓</b> Wo <b>↑</b>	N/A
Wujal Wujal	<i>p</i> < .05 Au <b>↓</b> Wu <b>↑</b>	N/A	N/A
Yarrabah	N/A	N/A	N/A

### 3.2.8.2.1 Aurukun

Of the 12 potential comparison divisions for Aurukun, seven were assessed to be appropriate comparisons, with the division of Mornington Island demonstrating the best match to Aurukun's preintervention trend in good order offence rates. Two comparisons did not reveal any significant post-intervention impact. Five of these seven comparisons between Aurukun and Cherbourg, Lockhart River, Mornington Island, Woorabinda, and Wujal Wujal found a significant impact of the intervention; however, the post-intervention impact was largely due to good order offence rates increasing significantly greater in the comparison divisions more than in Aurukun following the intervention.

Overall, the difference-in-difference analyses suggest that the intervention reduced good order offence rates in Aurukun, over and above any changes seen in the absence of the intervention.

#### 3.2.8.2.2 Coen

Of the 12 potential comparison divisions for Coen, eight were assessed to be appropriate comparisons, with the division of Cherbourg demonstrating the best match to Coen's pre-intervention trend in good order offence rates. Four comparisons did not reveal any significant post-intervention impact. The remaining four of these eight comparisons between Coen and Cherbourg, Lockhart River, Mornington Island, and Woorabinda found a significant impact of the intervention; however, the post-intervention

impact was largely due to good order offence rates increasing significantly more in the comparison divisions more than in Coen following the intervention.

Overall, the difference-in-difference analyses provide some evidence to suggest that the intervention may have reduced good order offence rates in Coen, over and above any changes seen in the absence of the intervention.

## 3.2.8.2.3 *Hope Vale*

From the 12 potential comparison divisions for Hope Vale, only Bamaga was assessed to be an appropriate comparison, demonstrating the best match to Hope Vale's pre-intervention trend in good order offence rates. This comparison between Hope Vale and Bamaga found a significant impact of the intervention; however, the post-intervention impact was largely due to good order offence rates increasing significantly in Hope Vale more than Bamaga.

Overall, the one appropriate difference-in-difference analyses provides some evidence that the intervention may have increased good order offence rates in Hope Vale, over and above any changes seen in the absence of the intervention. However, as this is only based on one analysis, the result must be interpreted with caution.

#### 3.2.8.2.4 Summary

The difference-in-difference analyses, across 16 analyses, suggest that the intervention may have significantly reduced good order offence rates in the divisions of Aurukun. There is some evidence to suggest a relative reduction in good order offences in Coen, and some tentative evidence to suggest that the intervention had a significant negative impact on good order offence rates in Hope Vale.

## 3.2.8.3 Meta-analyses

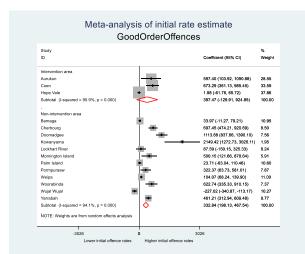


Figure 156 Initial rate estimate—good order offences

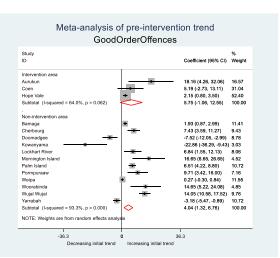


Figure 157 Pre-intervention trend—good order offences

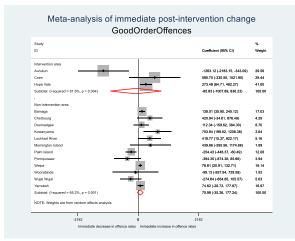


Figure 158 Immediate post-intervention change—good order offences

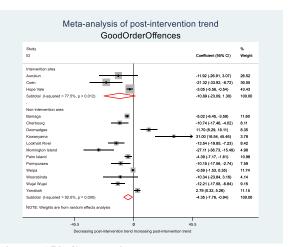


Figure 159 Change in trend postintervention—good order offences

## 3.2.8.3.1 Initial rate estimate

The results of the interrupted time series analysis indicate that there was significant variability in the initial rate of good order offences in 2001 in the intervention areas ( $I^2 = 90.9\%$  p<0.001), as well as amongst the comparison areas ( $I^2 = 94.1\%$  p<.001). Moderator analyses indicated that there was no significant difference between the initial rate of good order offences in the pooled intervention divisions compared to the pooled comparison divisions.

## 3.2.8.3.2 Pre-intervention trend

Of the intervention divisions, only Aurukun showed a significantly increasing trend in good order offences prior to the intervention (18.16 per 100,000 per month; CI: 4.26 to 32.06); however this trend is not significantly different to the increase in the pooled control areas. The overall pooled effect in the intervention areas are not significantly different from zero, and there was no significant variability amongst intervention divisions ( $I^2$ =64%, p=0.062). The overall pooled effect of the comparison areas

demonstrates a significantly increasing trend in good order offences prior to the intervention, but there is significant variability amongst comparison divisions ( $I^2$ =93.3%, p<0.001). However, moderator analysis showed that there was no significant difference between the trends in the pooled intervention areas and in the pooled comparison areas.

### 3.2.8.3.3 Immediate post-intervention change

Aurukun demonstrated a significant and immediate decrease in the rate of good order offences following the intervention (-1263.12 per 100,000; CI: --2183.15 to -343.09), and this effect was significantly greater than the (non-significant) effect seen in the pooled comparison areas. In contrast, Hope Vale demonstrated an immediate increase (293.49 per 100,000; CI: 64.71 to 482.27), but this was not significantly different to the effect in the pooled comparison area. Neither the pooled intervention area nor the pooled comparison area showed any significant change immediately following the intervention; however there was significant variability in effects amongst the intervention areas (I<sup>2</sup>=81.6%, p<0.01), and the comparison areas areas (I<sup>2</sup>=65.2%, p<0.01). Moderator analysis indicated that there was no significant difference between immediate impact of the intervention on the intervention and comparison groups.

### 3.2.8.3.4 Post-intervention trend

Of the intervention areas, both Coen and Hope Vale demonstrated a significant decrease in the trend in good order offences: Coen (-21.32 per 100,000 per months; CI: -33.92 to -8.72); Hope Vale (-3.05 per 100,000 per month; CI: -5.56 to -0.54). Only the reduction in trend in Coen was significantly lower from the reduction seen in the pooled comparison areas. The pooled intervention areas showed no significant change in the trend following the intervention, and there was significant variation amongst intervention areas ( $I^2=77.5\%$ , p<0.05). The pooled comparison areas showed a significant decrease in the trend in good order offences (-4.35 per 100,000 per month; CI: -7.76 to -0.94); however there was significant variability amongst comparison areas ( $I^2=92\%$ , p<0.001). Moderator analysis showed that there was no significant difference between effects in the pooled intervention area and the pooled comparison area.

### 3.2.8.3.5 *Summary*

The difference-in-difference analyses suggested that the intervention may have significantly reduced good order offence rates in Aurukun and Coen. It further offered some tentative evidence (but based only on one analysis) to suggest that the intervention had a significant negative impact on good order offence rates in Hope Vale.

The meta-analysis of the results of the interrupted time series analyses supports the conclusion that there was a relative reduction in good order offences in Aurukun after the intervention, and identifies that this was due to an immediate post-intervention decrease in good order offences in Aurukun, relative to the comparison area. Prior to the intervention, there was a statistically significant increase in the good order offence rate in both Aurukun and the comparison area. Immediately following the intervention, good order offence rates remained stable in the comparison areas, but significantly decreased in Aurukun relative to the comparison area. Although the post-intervention trend is not significantly different from the pre-intervention trend in Aurukun, the rate of good order offences is rising faster in Aurukun than in the comparison area.

The difference-in-difference analysis indicated that there was a significant decrease in the average rate of good order offences after the intervention in Coen, relative to the comparison area. The time series analysis supports this conclusion, and identifies that this decrease was due to a change in the trend in good order offence rates (from an increasing trend to a decreasing trend) following the intervention in Coen, and that this decrease was significantly beyond that seen in the comparison area. Prior to the intervention, there was a statistically significant increase in the good order offence rate in both Coen and the comparison area; however there was no immediate shift in the rate of good order offences following the intervention in either area. Therefore, although there was no immediate impact of the intervention, the time series analysis shows that the rate of growth of good order offences reversed in Coen, suggesting a positive impact of the intervention.

The results of the time series analyses for good order offences support the results of the difference-indifference analyses, and indicate a positive impact of the intervention on good order offences in both Aurukun and Coen. The results (comparing Hope Vale to the pooled effects of all 12 divisions) do not support a significant impact of the intervention in Hope Vale, nor of a significant effect in the pooled intervention area.

## 3.2.8.4 Regress monthly data on monthly CYIM clients

A series of ordinary least squares regressions were conducted to assess the relationship between the number of CYIM clients in a community at each month, and the offence rate in the corresponding police division. The resulting coefficients were then meta-analysed (see Methodology for detail).

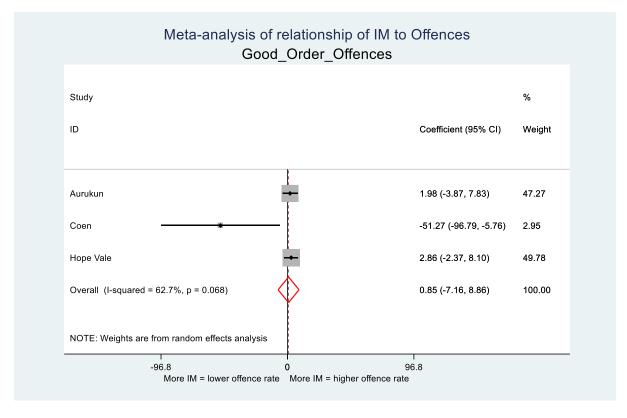


Figure 160 Meta-analysis of relationship of CYIM to offences—good order offences

The results of the regression analysis showed that only Coen had a significant relationship between the number of CYIM clients in the community and the rate of good order offences in the corresponding police division, whereby as the number of CYIM clients went up, offences went down. However, there was no overall significant relationship between CYIM and good order offences in the pooled intervention divisions, with no significant variability between communities.

# 3.2.9 Public nuisance

# *3.2.9.1 Graphing*

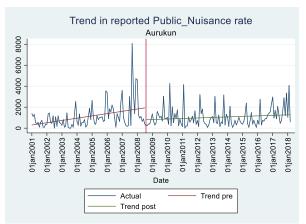


Figure 161 Trend in reported public nuisance offence rate—Aurukun

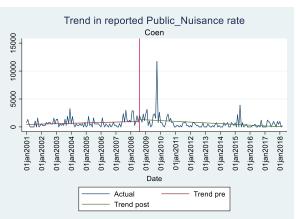


Figure 162 Trend in reported public nuisance offence rate—Coen

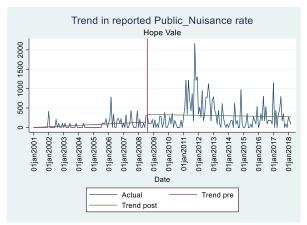


Figure 163 Trend in reported public nuisance offence rate—Hope Vale

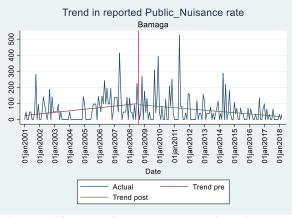


Figure 164 Trend in reported public nuisance offence rate—Bamaga

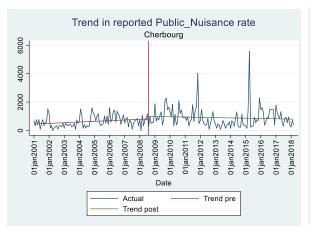


Figure 165 Trend in reported public nuisance offence rate—Cherbourg

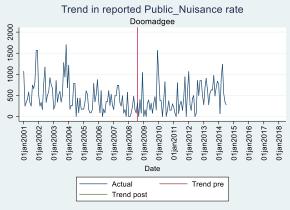


Figure 166 Trend in reported public nuisance offence rate—Doomadgee

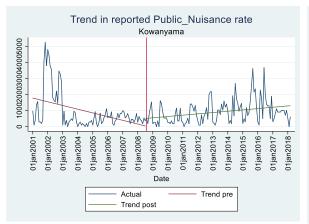


Figure 167 Trend in reported public nuisance offence rate—Kowanyama

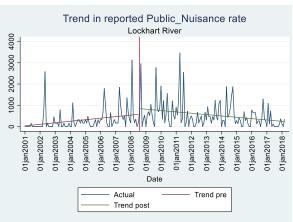


Figure 168 Trend in reported public nuisance offence rate—Lockhart River

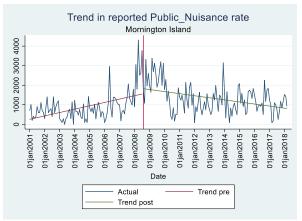


Figure 169 Trend in reported public nuisance offence rate—Mornington Island

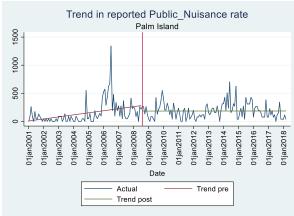


Figure 170 Trend in reported public nuisance offence rate—Palm Island

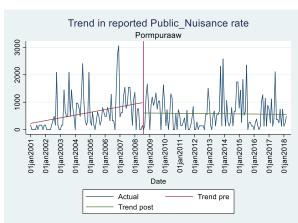


Figure 171 Trend in reported public nuisance offence rate—Pormpuraaw

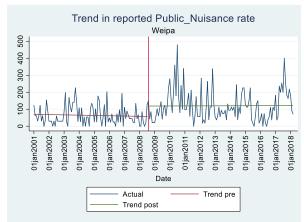


Figure 172 Trend in reported public nuisance offence rate—Weipa

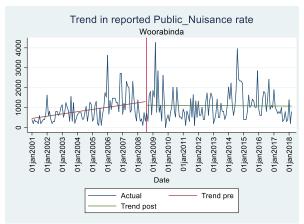


Figure 173 Trend in reported public nuisance offence rate—Woorabinda

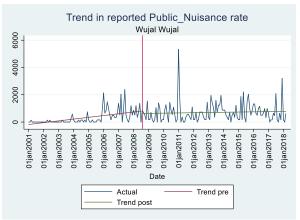


Figure 174 Trend in reported public nuisance offence rate—Wujal Wujal

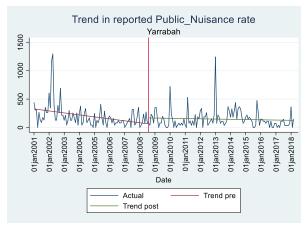


Figure 175 Trend in reported public nuisance offence rate—Yarrabah

# 3.2.9.2 Difference-in-difference analyses

Table 13 Statistical overview of difference-in-difference results for public nuisance

Public Nuisance	Aurukun	Coen	Hope Vale
Bamaga	N/A	p = .85, ns	<i>p</i> < .001 HV ↑ Ba 0
Cherbourg	N/A	p = .08, ns	p = .75, ns
Doomadgee	N/A	N/A	N/A
Kowanyama	N/A	N/A	N/A
Lockhart River	p = .07, ns	p = .11, ns	p > .99, $ns$
Mornington Island	<i>p</i> < .05 Au <b>↓</b> MI <b>↑</b>	<i>p</i> < .05 Co <b>↓</b> MI <b>↑</b>	N/A
Palm Island	N/A	p = .62, ns	<i>p</i> < .001 HV <b>↑</b> PI <b>↑</b>
Pormpuraaw	p = .77, ns	p = .95, ns	<i>p</i> < .05 HV ↑ Po ↓
Weipa	N/A	p = .54, ns	N/A
Woorabinda	p = .10, ns	p = .16, ns	N/A
Wujal Wujal	<i>p</i> < .05 Au <b>Ψ</b> Wu <b>↑</b>	<i>p</i> < .05 Co <b>↓</b> Wu <b>↑</b>	N/A
Yarrabah	N/A	N/A	N/A

## 3.2.9.2.1 Aurukun

Of the 12 potential comparison divisions for Aurukun, five were assessed to be appropriate comparisons, with the division of Mornington Island demonstrating the best match to Aurukun's preintervention trend in public nuisance rates. Three comparisons did not reveal any significant post-intervention impact. Two of the five comparisons between Aurukun and Mornington Island, and Aurukun and Wujal Wujal found a significant impact of the intervention; however, the post-intervention impact was largely due to public nuisance rates increasing significantly more in the comparison divisions than in Aurukun, which actually decreased in public nuisance rates.

Overall, the difference-in-difference analyses do not suggest that the intervention reduced public nuisance rates in Aurukun, over and above any changes seen in the absence of the intervention.

# 3.2.9.2.2 Coen

From the 12 potential comparison divisions for Coen, nine were assessed to be appropriate comparisons, with the division of Lockhart River demonstrating the best match to Coen's preintervention trend in public nuisance rates. Seven comparisons did not reveal any significant post-intervention impact. Two of the nine comparisons between Coen and Mornington Island, and Coen and Wujal Wujal found a significant impact of the intervention; however, the post-intervention impact was largely due to public nuisance rates increasing significantly more in the comparison divisions than in Coen, which actually decreased in public nuisance rates.

Overall, the difference-in-difference analyses do not suggest that the intervention reduced public nuisance rates in Coen, over and above any changes seen in the absence of the intervention.

# 3.2.9.2.3 *Hope Vale*

Of the 12 potential comparison divisions for Hope Vale, five were assessed to be appropriate comparisons, with Bamaga demonstrating the best match to Hope Vale's pre-intervention trend in public nuisance rates. Two analyses revealed no significant impact of the intervention. The remaining three comparisons between Hope Vale and Bamaga, Palm Island, and Pormpuraaw found a significant impact of the intervention; however, the post-intervention impact was largely due to public nuisance rates significantly increasing in Hope Vale following the intervention.

Overall, the difference-in-difference analyses suggest that the intervention may have increased public nuisance rates in Hope Vale, over and above any changes seen in the absence of the intervention.

# *3.2.9.2.4 Summary*

The difference-in-difference analyses, across 19 analyses, suggest that the intervention had no significant impact on public nuisance rates in the divisions of Aurukun, and Coen; however, there is some evidence that the intervention may have had a significant negative impact on public nuisance rates in Hope Vale.

# 3.2.9.3 Meta-analyses

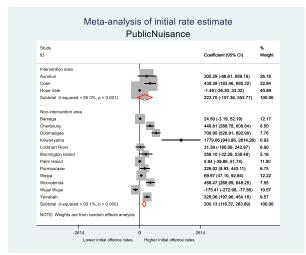


Figure 176 Initial rate estimate—public nuisance

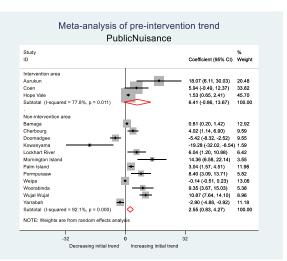


Figure 177 Pre-intervention trend—public nuisance

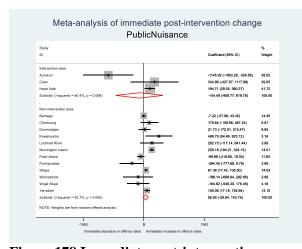


Figure 178 Immediate post-intervention change—public nuisance

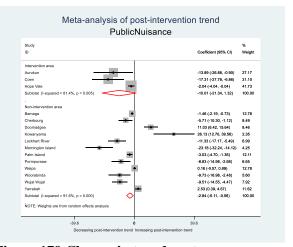


Figure 179 Change in trend postintervention—public nuisance

# 3.2.9.3.1 Initial rate estimate

The results of the interrupted time series analysis indicate that there was significant variability in the initial rate of public nuisance offences in 2001 in the intervention areas ( $I^2 = 85\%$  p<0.01), as well as amongst the comparison areas ( $I^2 = 93.1\%$  p<.001). Moderator analyses indicated that there was no significant difference between the initial rate of public nuisance offences in the pooled intervention divisions compared to the pooled comparison divisions.

# 3.2.9.3.2 Pre-intervention trend

Of the intervention divisions, Aurukun and Hope Vale showed a significantly increasing trend in public nuisance offences prior to the intervention: Aurukun (18.07 per 100,000 per month; CI: 6.11 to 30.03); Hope Vale (1.53 per 100,000 per month; CI: 0.65 to 2.41). Only the trend in Aurukun is significantly different to the increase in the pooled control areas. The overall pooled effect in the

intervention areas are not significantly different from zero, but there was no significant variability amongst intervention divisions ( $I^2$ =77.8%, p<0.05). The overall pooled effect of the comparison areas demonstrates a significantly increasing trend in public nuisance offences prior to the intervention (2.55 per 100,000 per month; CI: 0.83 to 4.27) and there is significant variability amongst comparison divisions ( $I^2$ =92.1%, p<0.001). However, moderator analysis showed that there was no significant difference between the trends in the pooled intervention areas and in the pooled comparison areas.

# 3.2.9.3.3 Immediate post-intervention change

Aurukun demonstrated a significant and immediate decrease in the rate of public nuisance offences following the intervention (-1145.92 per 100,000; CI: -1963.28 to -328.56), and this effect was significantly greater than the (non-significant) effect seen in the pooled comparison areas. In contrast, Hope Vale demonstrated an immediate increase (194.71 per 100,000; CI: 29.05 to 360.37), but this was not significantly different to the effect in the pooled comparison area. Neither the pooled intervention area nor the pooled comparison area showed any significant change immediately following the intervention; however there was significant variability in effects amongst the intervention areas ( $I^2$ =80.4%, p<0.01), and the comparison areas ( $I^2$ =82.7%, p<0.001).

### 3.2.9.3.4 Post-intervention trend

Of the intervention areas, all three divisions demonstrated a significant decrease in the trend in public nuisance offences: Aurukun (-13.89 per 100,000; CI: -26.88 to -0.90); Coen (-17.31 per 100,000 per months; CI: -27.76 to -6.86); Hope Vale (-2.04 per 100,000 per month; CI: -4.04 to -0.04). Only the reduction in trend in Coen was significantly lower from the reduction seen in the pooled comparison areas. Due to the high level of variability amongst intervention areas (I2=81.4%, p<0.01), the pooled intervention areas showed an effect that was not significantly different from zero. The pooled comparison areas showed a significant decrease in the trend in public nuisance offences (-2.84 per 100,000 per month; CI: -5.11 to -0.56); however there was also significant variability amongst comparison areas (I2=91.6%, p<0.001). Moderator analysis showed that there was no significant difference between effects in the pooled intervention area and the pooled comparison area.

## 3.2.9.3.5 Summary

The difference-in-difference analyses suggest that the intervention had no significant impact on public nuisance rates in the divisions of Aurukun, and Coen; however, there was some evidence that the intervention may have had a negative impact on public nuisance rates in Hope Vale. The results of the interrupted time series analyses do not support these conclusions. The difference between the results of the two different analyses is largely due to the limited number of appropriate comparisons available for the difference-in-difference analyses and the wide variability between outcomes in the individual comparison areas.

The difference-in-difference analyses for Aurukun suggested that, overall, there was no significant impact of the intervention on the rate of public nuisance offences. This conclusion is largely due to the smaller number of comparison groups that met the statistical assumptions for a difference-in-difference analysis. The meta-analyses of the interrupted time series analyses for Aurukun do not support this conclusion, and instead, suggest that the intervention had a positive impact on public nuisance rates in Aurukun, relative to the pooled comparison area. Following the intervention, Aurukun saw an immediate and significant decrease in public order offences, relative to the pooled comparison area, and public nuisance offences have not returned to their previous levels.

The difference-in-difference analyses for Coen also indicated that there was no significant impact of the intervention on the rate of public nuisance offences. The interrupted time series analyses shows that was no significant change in the level of offences immediately following the intervention; however, there was a significant reversal of trend in Coen beyond that seen in the pooled comparison area. Therefore, although there was no immediate impact of the intervention, the time series analysis shows that the rate of public nuisance offences has decreased significantly in Coen relative to the comparison area, suggesting a positive impact of the intervention in Coen.

Finally, the interrupted time series analyses show no significant impact of the intervention on Hope Vale on any of the parameters.

Overall, these results indicate that there was a positive impact of the intervention on public nuisance offences in Aurukun and Coen, but no effect on Hope Vale.

# 3.2.9.4 Regress monthly data on monthly CYIM clients

A series of ordinary least squares regressions were conducted to assess the relationship between the number of CYIM clients in a community at each month, and the offence rate in the corresponding police division. The resulting coefficients were then meta-analysed (see Methodology for detail).

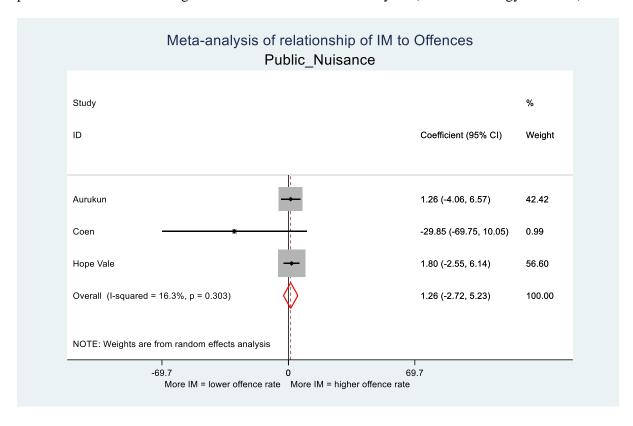


Figure 180 Meta-analysis of relationship of CYIM to offences—public nuisance

The results of the regression analysis showed none of the communities showed a significant relationship between the number of CYIM clients in the community and the rate of public nuisance offences in the corresponding police division. There was no overall significant relationship between CYIM and public nuisance offences in the pooled intervention divisions, with no significant variability between communities.

#### 3.2.11 Traffic and related offences

#### 3.2.11.1 Graphing

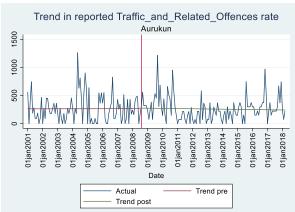
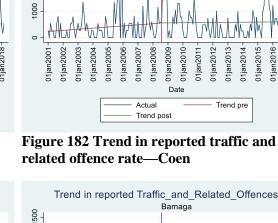


Figure 181 Trend in reported traffic and related offence rate—Aurukun

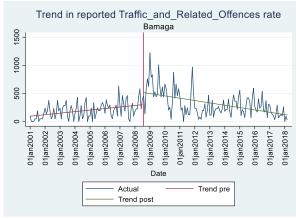


3000

2000

Trend in reported Traffic\_and\_Related\_Offences rate Hope Vale 1500 1000 200 01jan2002 01jan2004 Actual Trend pre Trend post

Figure 183 Trend in reported traffic and related offence rate—Hope Vale



Trend in reported Traffic\_and\_Related\_Offences rate

01jan2012-

01jan2011

01jan2013

01jan2014

01jan2015

01jan2017

Figure 184 Trend in reported traffic and related offence rate—Bamaga

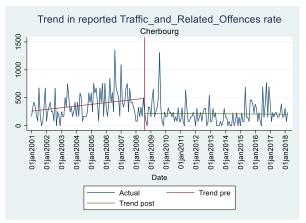


Figure 185 Trend in reported traffic and related offence rate—Cherbourg

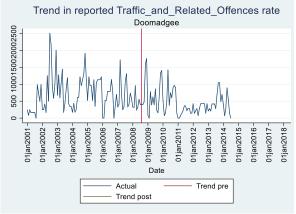


Figure 186 Trend in reported traffic and related offence rate—Doomadgee

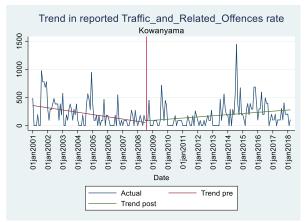


Figure 187 Trend in reported traffic and related offence rate—Kowanyama

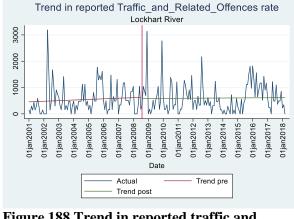


Figure 188 Trend in reported traffic and related offence rate—Lockhart River

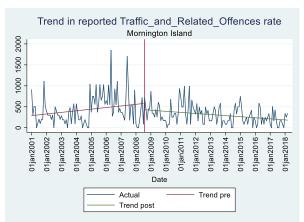


Figure 189 Trend in reported traffic and related offence rate—Mornington Island

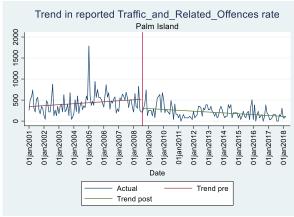


Figure 190 Trend in reported traffic and related offence rate—Palm Island

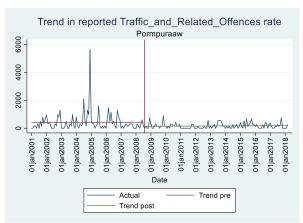


Figure 191 Trend in reported traffic and related offence rate—Pormpuraaw

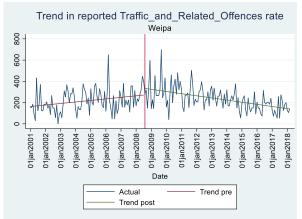


Figure 192 Trend in reported traffic and related offence rate—Weipa

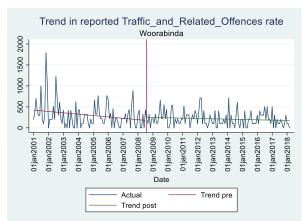


Figure 193 Trend in reported traffic and related offence rate—Woorabinda

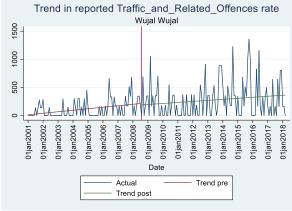


Figure 194 Trend in reported traffic and related offence rate—Wujal Wujal

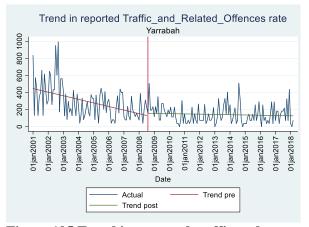


Figure 195 Trend in reported traffic and related offence rate—Yarrabah

# 3.2.11.2 Difference-in-difference analyses

Table 14 Statistical overview of difference-in-difference results for traffic and related offences

Traffic and	Aurukun	Coen	Hope Vale
Related			-
Offences			
Bamaga	N/A	p = .42, ns	p = .16, ns
Cherbourg	<i>p</i> < .05 Au 0 Ch <b>↓</b>	<i>p</i> < .001 Co <b>↑</b> Ch <b>↓</b>	<i>p</i> < .001 HV ↑ Ch
Doomadgee	<i>p</i> < .001 Au 0 Do ♥	<i>p</i> < .001 Co <b>↑</b> Do <b>↓</b>	<i>p</i> < .001 HV ↑ Do
Kowanyama	N/A	N/A	N/A
Lockhart River	p = .46, ns	p = .25, ns	p = .15, ns
Mornington Island	<i>p</i> < .05 Au 0 MI <b>↓</b>	<i>p</i> < .05 Co <b>↑</b> MI <b>↓</b>	<i>p</i> < .001 HV ↑ MI ↓
Palm Island	<i>p</i> < .001 Au 0 PI <b>♥</b>	<i>p</i> < .001 Co <b>↑</b> PI <b>↓</b>	<i>p</i> < .001 HV ↑ PI ↓
Pormpuraaw	<i>p</i> < .05 Au 0 Po <b>↓</b>	<i>p</i> < .001 Co <b>↑</b> Po <b>↓</b>	<i>p</i> < .001 HV ↑ Po ↓
Weipa	p = .48, ns	<i>p</i> < .05 Co <b>↑</b> We <b>↑</b>	<i>p</i> < .001 HV <b>↑</b> We <b>↑</b>
Woorabinda	p = .08, ns	N/A	N/A
Wujal Wujal	N/A	p = .77, ns	p = .74, ns
Yarrabah	N/A	N/A	N/A

# 3.2.11.2.1 Aurukun

From the 12 potential comparison divisions for Aurukun, eight were evaluated to be appropriate comparisons, with the divisions of Doomadgee and Pormpuraaw demonstrating the best match to Aurukun's pre-intervention trend in traffic and related offence rates. Three comparisons did not reveal any significant post-intervention impact. Five of the eight comparisons between Aurukun and Cherbourg, Doomadgee, Mornington Island, Palm Island, and Pormpuraaw found a significant impact of the intervention; however, the post-intervention impact was largely due to traffic and related offence rates decreasing significantly more in the comparison divisions than in Aurukun, where Aurukun decreased by 6 per 100,000 and comparison divisions decreased by at least 128 per 100,000.

Overall, the difference-in-difference analyses do not suggest that the intervention reduced traffic and related offence rates in Aurukun, over and above any changes seen in the absence of the intervention.

# 3.2.11.2.2 Coen

Of the 12 potential comparison divisions for Coen, nine were evaluated to be appropriate comparisons, with the division of Mornington Island demonstrating the best match to Coen's preintervention trend in traffic and related offence rates. Three comparisons did not reveal any significant post-intervention impact. Six of the none comparisons between Coen and Cherbourg,

Doomadgee, Lockhart River, Mornington Island, Palm Island, Pormpuraaw, and Weipa found a significant impact of the intervention; however, the post-intervention impact was largely due to traffic and related offence rates decreasing significantly more in the comparison divisions than in Coen, which actually increased in offence rates.

Overall, the difference-in-difference analyses do not suggest that the intervention reduced traffic and related offence rates in Coen, over and above any changes seen in the absence of the intervention. Rather, rates increased in Coen whilst decreasing in many of the comparison areas.

## *3.2.11.2.3 Hope Vale*

Of the 12 potential comparison divisions for Hope Vale, nine were evaluated to be appropriate comparisons, with Wujal Wujal, Bamaga, Lockhart River, Cherbourg, and Palm Island demonstrating the best match to Hope Vale's pre-intervention trend in traffic and related offence rates. Three comparisons did not reveal any significant post-intervention impact. Five of the eight comparisons between Hope Vale and Cherbourg, Doomadgee, Mornington Island, Palm Island, Pormpuraaw, and Weipa found a significant impact of the intervention; however, the post-intervention impact was largely due to traffic and related offence rates decreasing significantly in the comparison divisions whilst increasing significantly in Hope Vale.

Overall, the difference-in-difference analyses do not suggest that the intervention significantly reduced traffic and related offence rates in Hope Vale, over and above any changes seen in the absence of the intervention. Rather, rates increased in Hope Vale, whilst decreasing in many of the comparison areas.

# *3.2.11.2.4 Summary*

The difference-in-difference analyses, across 26 analyses, suggest that the intervention did not significant reduce traffic and related offence rates in Aurukun; however, there is evidence that the intervention had a significant negative impact on traffic and related offence rates in Coen and Hope Vale.

# 3.2.11.3 Meta-analyses

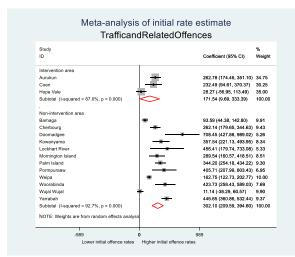


Figure 196 Initial rate estimate—traffic and related offences

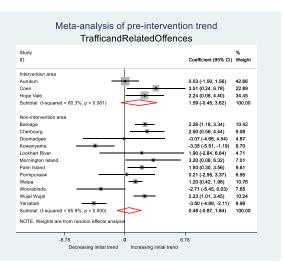


Figure 197 Pre-intervention trend—traffic and related offences

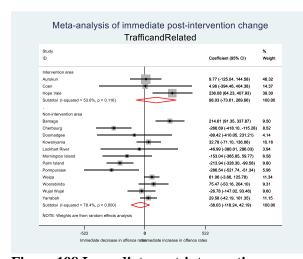


Figure 198 Immediate post-intervention change—traffic and related offences

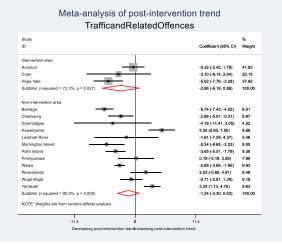


Figure 199 Change in trend postintervention—traffic and related offences

## 3.2.11.3.1 Initial rate estimate

The results of the interrupted time series analysis indicate that there was significant variability in the initial rate of traffic and related offences in 2001 in the intervention areas ( $I^2 = 87\%$  p<0.01), as well as amongst the comparison areas ( $I^2 = 92.7\%$  p<0.001). Moderator analyses indicated that there was no significant difference between the initial rate of traffic and related offences in the pooled intervention divisions compared to the pooled comparison divisions.

### 3.2.11.3.2 Pre-intervention trend

Of the intervention divisions, Coen and Hope Vale showed a significantly increasing trend in traffic and related offences prior to the intervention: Coen (3.51 per 100,000 per month; CI: 0.24 to 6.78); Hope Vale (2.24 per 100,000 per month; CI: 0.08 to 4.40); however neither trend is significantly different to the (non-significant) trend in the pooled control areas. The overall pooled effect in the

intervention areas and comparison areas are not significantly different from zero. There was no significant variability amongst intervention divisions ( $I^2$ =60.3%, p=0.081) but there was significant variability amongst comparison divisions ( $I^2$ =85.9%, p<0.001). However, moderator analysis showed that there was no significant difference between the trends in the pooled intervention areas and in the pooled comparison areas.

# 3.2.11.3.3 Immediate post-intervention change

Hope Vale demonstrated a significant and immediate increase in the rate of traffic and related offences following the intervention (236.08 per 100,000; CI: 64.23 to 407.93), and this effect was significantly greater than the (non-significant) effect seen in the pooled comparison areas. Neither the pooled intervention area nor the pooled comparison area showed any significant change immediately following the intervention. There was no significant variability in effects amongst the intervention areas ( $I^2$ =53.6%, p=0.116), but there was significant variability amongst the comparison areas ( $I^2$ =78.4%, p<0.001). Moderator analysis indicated that there was no significant difference between immediate impact of the intervention on the pooled intervention and comparison groups.

# 3.2.11.3.4 Post-intervention trend

Of the intervention areas, only Hope Vale demonstrated a significant decrease in the trend in traffic and related offences (-5.02 per 100,000 per month; CI: -7.76 to -2.28), but this was not significantly different from the (non-significant) change seen in the pooled comparison area. Neither the pooled intervention areas nor the pooled comparison areas showed a significant change in the trend in traffic and related offences, and there was also significant variability amongst both the intervention areas ( $I^2$ =72.3%, p<0.05) and the comparison areas ( $I^2$ =90.5%, p<0.001). Moderator analysis showed that there was no significant difference between effects in the pooled intervention area and the pooled comparison area.

## *3.2.11.3.5 Summary*

The difference-in-difference analyses suggest that the intervention did not significantly reduce traffic and related offence rates in Aurukun, but that there was evidence that the intervention had a negative impact on traffic and related offence rates in Coen and Hope Vale.

The results of the meta-analyses of the interrupted time series analyses support the conclusion that the intervention did not affect the rate of traffic and related offences Aurukun. Similarly, the intervention does seem to have had a negative impact on traffic and related offence rates in Hope Vale. Immediately following the intervention, offence rates in Hope Vale increased; however, the post-intervention trend declined and rates have gradually returned to pre-intervention levels.

The difference-in-difference analyses also indicated that the intervention may have had a negative relative effect in Coen because the average traffic and related offence rate in Coen increased following the intervention, relative to a decrease in some comparison areas. However, the meta-analyses of the interrupted time series analyses shows no significant difference between Coen and the pooled comparison area on any of the key parameters. The difference in the results of the two analyses can be best described as an issue of aggregation. The difference-in-difference analysis shows a significant post-intervention difference between groups when the months pre- and post-intervention are aggregated to an average; however, this is as a result of aggregating smaller, non-significant differences over the longer (disaggregated) trends in the data. The interrupted time series

analysis gives a more nuanced interpretation of the trends in the data, and demonstrates that there was no significant changes in the rate of traffic and related offences in Coen, relative to the levels and trends in the comparison area.

Overall, these results suggest that the intervention had no impact on rates of traffic and related offences in Aurukun and Coen, but that there was an immediate and long-lasting increase in offence rates in Hope Vale following the intervention.

# 3.2.11.4 Regress monthly data on monthly CYIM clients

A series of ordinary least squares regressions were conducted to assess the relationship between the number of CYIM clients in a community at each month, and the offence rate in the corresponding police division. The resulting coefficients were then meta-analysed (see Methodology for detail).

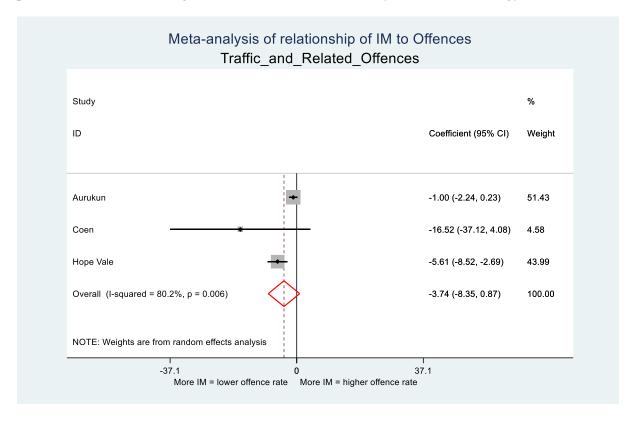


Figure 200 Meta-analysis of relationship of CYIM to offences—traffic and related offences

The results of the regression analysis showed that only Hope Vale had a significant relationship between the number of CYIM clients in the community and the rate of traffic and related offences in the corresponding police division, whereby as the number of CYIM clients increased, the rate of offences decreased. There was no overall significant relationship between CYIM and offences in the pooled intervention divisions; however was significant variability between communities.

#### 3.2.12 Drink driving

# 3.2.12.1 *Graphing*

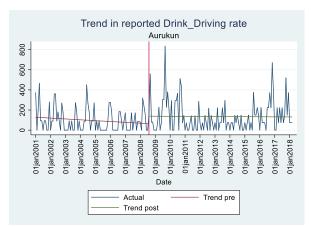
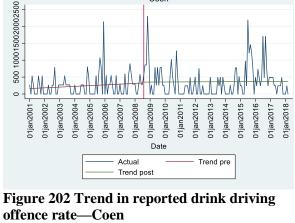


Figure 201 Trend in reported drink driving offence rate—Aurukun



Trend in reported Drink Driving rate

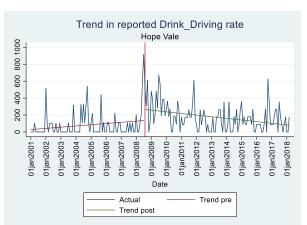


Figure 203 Trend in reported drink driving offence rate—Hope Vale

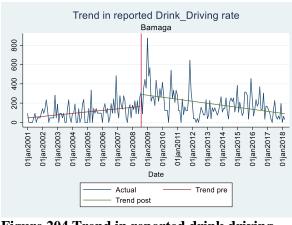


Figure 204 Trend in reported drink driving offence rate—Bamaga

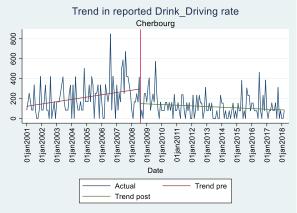


Figure 205 Trend in reported drink driving offence rate—Cherbourg

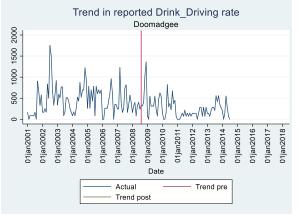


Figure 206 Trend in reported drink driving offence rate—Doomadgee

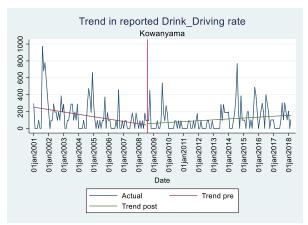


Figure 207 Trend in reported drink driving offence rate—Kowanyama

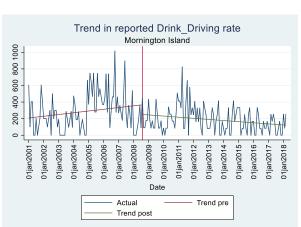


Figure 209 Trend in reported drink driving offence rate—Mornington Island

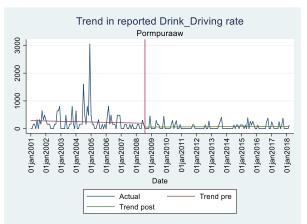


Figure 211 Trend in reported drink driving offence rate—Pormpuraaw

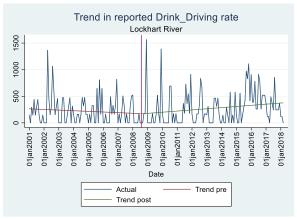


Figure 208 Trend in reported drink driving offence rate—Lockhart River

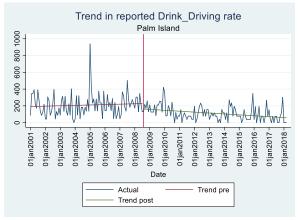


Figure 210 Trend in reported drink driving offence rate—Palm Island

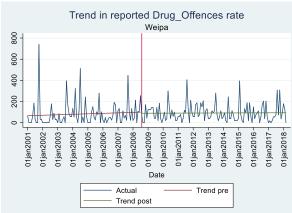


Figure 212 Trend in reported drink driving offence rate—Weipa

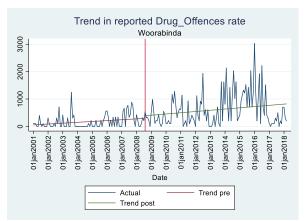
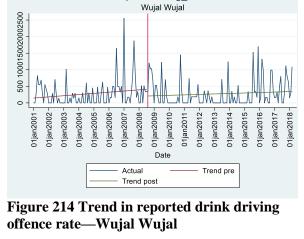


Figure 213 Trend in reported drink driving offence rate—Woorabinda



Trend in reported Drug\_Offences rate

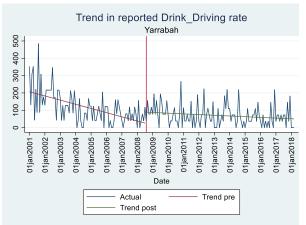


Figure 215 Trend in reported drink driving offence rate—Yarrabah

# 3.2.12.2 Difference-in-difference analyses

**Table 15** Statistical overview of difference-in-difference results for drink driving

Drink Driving	Aurukun	Coen	Hope Vale
Bamaga	N/A	p = .56, ns	p = .85, ns
Cherbourg	N/A	<i>p</i> < .001 Co <b>↑</b> Ch <b>↓</b>	$p < .001 \text{ HV } \uparrow \text{ Ch}$
Doomadgee	<i>p</i> < .001 Au ↑ Do	<i>p</i> < .001 Co <b>↑</b> Do <b>↓</b>	<i>p</i> < .001 HV ↑ Do
Kowanyama	$p < .05 \text{ Au} \land \text{Ko} \lor$	N/A	N/A
Lockhart River	p = .73, ns	p = .35, ns	p = .73, ns
Mornington Island	N/A	<i>p</i> < .001 Co <b>↑</b> MI <b>↓</b>	<i>p</i> < .001 HV ↑ MI ↓
Palm Island	<i>p</i> < .001 Au ↑ PI ↓	<i>p</i> < .001 Co <b>↑</b> PI <b>↓</b>	<i>p</i> < .001 HV ↑ PI ↓
Pormpuraaw	<i>p</i> < .001 Au ↑ Po <b>↓</b>	N/A	<i>p</i> < .001 HV ↑ Po ↓
Weipa	N/A	p = .06, ns	p < .05  HV   We 0
Woorabinda	$p = .05 \text{ Au} \land \text{Wo} \checkmark$	N/A	N/A
Wujal Wujal	N/A	p = .84, ns	p = .64, ns
Yarrabah	N/A	N/A	N/A

# 3.2.12.2.1 Aurukun

From the 12 potential comparison divisions for Aurukun, six were evaluated to be appropriate comparisons, with Lockhart River demonstrating the best match to Aurukun's pre-intervention trend in drink driving rates. Five of the six comparisons between Aurukun and Doomadgee, Kowanyama, Palm Island, Pormpuraaw, and Woorabinda found a significant impact of the intervention; however, the post-intervention impact was largely due to drink driving rates decreasing in the comparison divisions whilst increasing in Aurukun.

Overall, the difference-in-difference analyses do not suggest that the intervention reduced drink driving rates in Aurukun, over and above any changes seen in the absence of the intervention. Rather, rates increased in Aurukun and decreased in many of the comparison areas.

# 3.2.12.2.2 Coen

From the 12 potential comparison divisions for Coen, eight were evaluated to be appropriate comparisons, with the divisions of Mornington Island and Cherbourg demonstrating the best match to Coen's pre-intervention trend in drink driving rates. Four comparisons did not reveal any significant post-intervention impact. Four of the eight comparisons between Coen and Cherbourg, Doomadgee, Mornington Island, and Palm Island found a significant impact of the intervention; however, the post-

intervention impact was largely due to drink driving rates increasing significantly in Coen, whilst decreasing in the comparison areas.

Overall, the difference-in-difference analyses do not suggest that the intervention reduced drink driving rates in Coen, over and above any changes seen in the absence of the intervention. Rather, rates increased in Coen and decreased in several of the comparison areas.

### *3.2.12.2.3 Hope Vale*

From the 12 potential comparison divisions for Hope Vale, nine were evaluated to be appropriate comparisons, with Bamaga and Weipa demonstrating the best match to Hope Vale's pre-intervention trend in drink driving rates. Three comparisons did not reveal any significant post-intervention impact. Six of the nine comparisons between Hope Vale and Cherbourg, Doomadgee, Mornington Island, Palm Island, Pormpuraaw, and Weipa found a significant impact of the intervention; however, the post-intervention impact was largely due to drink driving rates decreasing in the comparison divisions whilst increasing significantly in Hope Vale.

Overall, the difference-in-difference analyses suggest that the intervention did not reduce drink driving rates in Hope Vale, over and above any changes seen in the absence of the intervention. Rather, rates increased in Hope Vale and decreased in several of the comparison areas.

## *3.2.12.2.4 Summary*

The difference-in-difference analyses, across 23 analyses, provide evidence to suggest that the intervention was followed by a relative increase in drink driving rates in the divisions of Aurukun, Coen, and Hope Vale.

# 3.2.12.3 Meta-analyses

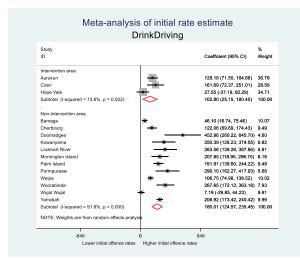


Figure 216 Initial rate estimate – Drink driving

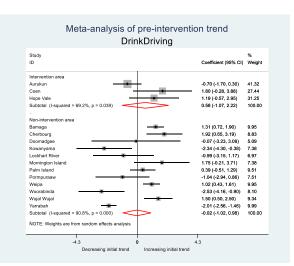


Figure 217 Pre-intervention trend – Drink driving

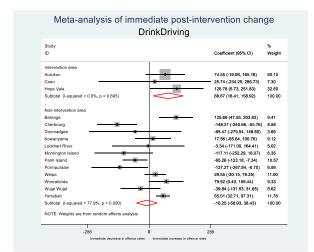


Figure 218 Immediate post-intervention change - Drink driving

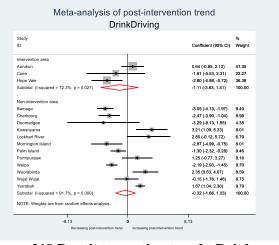


Figure 219 Post-intervention trend - Drink driving

# 3.2.12.3.1 Initial rate estimate

The results of the interrupted time series analysis indicate that there was significant variability in the initial rate of drink driving offences in 2001 in the intervention areas ( $I^2 = 7306\%$  p<0.05), as well as amongst the comparison areas ( $I^2 = 91.8\%$  p<.001). Moderator analyses indicated that there was no significant difference between the initial rate of drink driving offences in the pooled intervention divisions compared to the pooled comparison divisions.

# 3.2.12.3.2 Pre-intervention trend

None of the intervention divisions showed any significant trend in drink driving offences prior to the intervention. The overall pooled effect in the intervention areas and comparison areas are not significantly different from zero. However, there was significant variability amongst intervention

divisions ( $I^2$ =69.2%, p<0.05) and comparison divisions ( $I^2$ =90.8%, p<0.001). Moderator analysis showed that there was no significant difference between the trends in the pooled intervention areas and in the pooled comparison areas.

# 3.2.12.3.3 Immediate post-intervention change

Hope Vale demonstrated a significant and immediate increase in the rate of drink driving offences following the intervention (128.78 per 100,000; CI: 5.73 to 251.83), but this effect was not significantly greater than the (non-significant) effect seen in the pooled comparison areas. Overall, the pooled intervention area showed a significant increase in offences immediately following the intervention (88.67 per 100,000; CI: 18.41 to 158.92), and there was no significant variability in effects amongst the intervention areas ( $I^2$ =0%, p=0.695). There was no significant change in the pooled comparison area immediately following the intervention, but there was significant variability amongst the comparison areas ( $I^2$ =77.9%, p<0.001). Moderator analysis indicated that there was no significant difference between immediate impact of the intervention on the pooled intervention and comparison groups.

#### 3.2.12.3.4 Post-intervention trend

Of the intervention areas, only Hope Vale demonstrated a significant decrease in the trend in drink driving offences (-2.8 per 100,000 per month; CI: -74.88 to -0.72), but this was not significantly different from the (non-significant) change seen in the pooled comparison area. Neither the pooled intervention areas nor the pooled comparison areas showed a significant change in the trend in drink driving offences, and there was also significant variability amongst both the intervention areas ( $I^2$ =72.3%, p<0.05) and the comparison areas ( $I^2$ =91.7%, p<0.001). Moderator analysis showed that there was no significant difference between effects in the pooled intervention area and the pooled comparison area.

### *3.2.12.3.5 Summary*

The difference-in-difference analyses provide evidence to suggest that the intervention was followed by a relative increase in drink driving rates in all three divisions of Aurukun, Coen, and Hope Vale. The difference between the results of the two different analyses is largely due to the limited number of appropriate comparisons available for the difference-in-difference analyses and the wide variability between outcomes in the individual comparison areas.

In the meta-analyses of the interrupted time series analyses for drink driving offences, only Hope Vale showed a significant immediate increase in offences (although not beyond that seen in the pooled comparison area, and this was followed by a significant decrease in the trend in offences (although again, not beyond that seen in the pooled comparison area).

Overall, the meta-analyses of the interrupted time series analyses for drink driving offences indicate that was no significant difference between the pooled intervention areas and the pooled comparison areas in initial level of offending, pre-intervention trend, immediate post-intervention change, or post-intervention change to trend.

# 3.2.12.4 Regress monthly data on monthly CYIM clients

A series of ordinary least squares regressions were conducted to assess the relationship between the number of CYIM clients in a community at each month, and the offence rate in the corresponding police division. The resulting coefficients were then meta-analysed (see Methodology for detail).

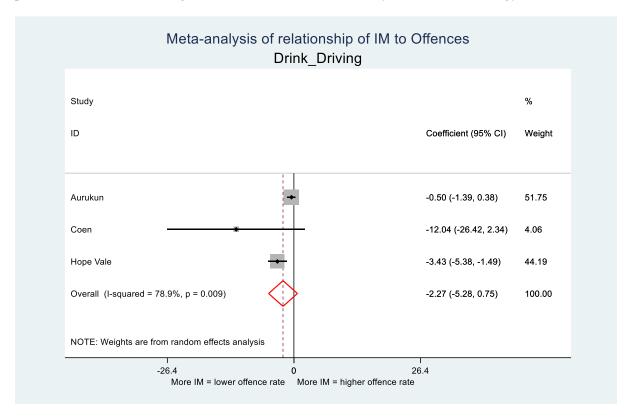


Figure 220 Meta-analysis of relationship of CYIM to offences—drink driving

The results of the regression analysis showed only Hope Vale had a significant relationship between the number of CYIM clients in the community and the rate of drink driving offences in the corresponding police division. There was no overall significant relationship between CYIM and drink driving offences in the pooled intervention divisions; however there was significant variability between communities.

# *3.2.13 Summary*

**Table 16** (below) graphically illustrates the impact of the FRC intervention on offence rates, by summarising the results of the meta-analyses of the interrupted time series analyses for each offence type. Overall, it can be seen that there was no significant effects that were consistent across all intervention divisions. However, the impact on offence rates differs among divisions.

**Table 16** Summary of impact of FRC intervention

	Aurukun	Coen	Hope Vale	Mossman Gorge	Overall
Assault		•	•	/	•
Sexual offences	•	•	•	/	
Offences against the person		•	•	/	
Offences against property		•		/	
Drug offences			•	/	•
Liquor, excl drunkenness		•		/	
Breach DVO	•	•	•	/	
Good order offences			•	/	
Public nuisance			•	/	
Traffic and related offences		•		/	
Drink driving	•	•	•	/	
School attendance	•	•	•	•	•
Child safety notifications	•				

Aurukun showed significant improvements in the rate of drug offences, good order offences, and public nuisance offences. There was an immediate relative decrease in the rate of assault and offences against the person following the FRC intervention; however the impact was not sustained over time. There was no significant impact on the other six offence categories.

Coen showed significant lasting improvement in the rate of good order and public nuisance offences, but showed a significant increase in drug offences relative to the pooled comparison divisions. There was no significant impact on the other eight offence categories.

Hope Vale showed significant and lasting improvement in the rate of liquor offences (excluding drunkenness). There was an immediate relative increase in traffic and related offences following the

FRC intervention; however that impact was not sustained over time. There was no significant impact on the nine other offence categories.

Table 17 Summary of impact of FRC intervention and number of CYIM clients on offence rates

	Impact of FRC intervention			Relationship to number of CYIM clients			f CYIM	
	Aurukun	Coen	Hope Vale	Overall	Aurukun	Coen	Hope Vale	Overall
Assault	<b>(</b>	•		•	•		•	•
Sexual offences								•
Offences against the person	•	•	•	•	•	•	•	•
Offences against property					•			•
Drug offences		•					•	•
Liquor, excl drunkenness					•			
Breach DVO				•	•		•	•
Good order offences				•				
Public nuisance				•	•			•
Traffic and related offences	•	•	•	•	•	•	•	•
Drink driving				•	•	•		•

No evidence of impact ● Some suggestion of positive impact ● Some suggestion of negative impact

With regards the relationship between the number of CYIM clients and the offence rates, the strongest relationship was seen in the reduction of liquor offences with the increase in the number of community members on CYIM, a relationship that was consistent across all three FRC communities. Breaches of DVOs were associated with more CYIM clients; however, given that breaching a domestic violence protection order can be a trigger for CYIM, this relationship should be interpreted with caution.

Positive impact
 Negative impact

# 3.3 Results—education data

# 3.3.1 Graphing

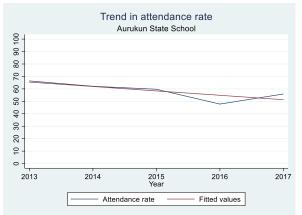


Figure 221 Trend in attendance rate—Aurukun State School

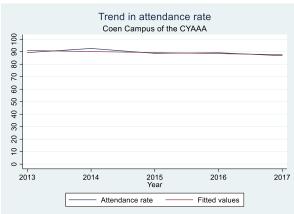


Figure 222 Trend in attendance rate—Coen CYAAA

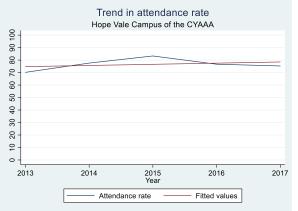


Figure 223 Trend in attendance rate—Hope Vale CYAAA

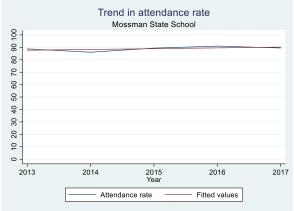


Figure 224 Trend in attendance rate— Mossman State School

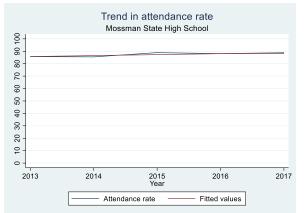


Figure 225 Trend in attendance rate— Mossman State High School

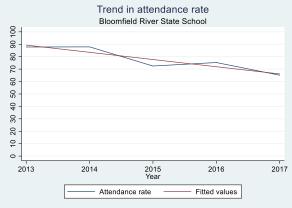


Figure 226 Trend in attendance rate—Bloomfield River State School

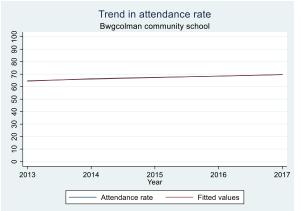


Figure 227 Trend in attendance rate— Bwgcolman Community School

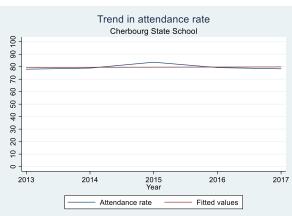


Figure 228 Trend in attendance rate— Cherbourg State School

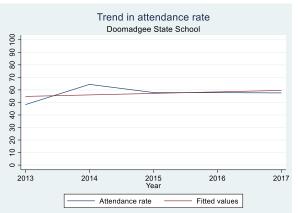


Figure 229 Trend in attendance rate— Doomadgee State School

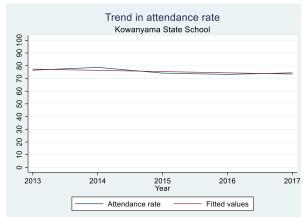


Figure 230 Trend in attendance rate— Kowanyama State School

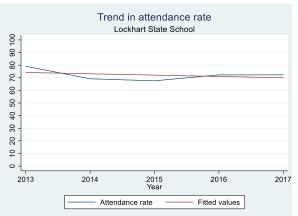


Figure 231 Trend in attendance rate— Lockhart State School

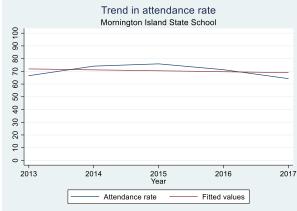


Figure 232 Trend in attendance rate— Mornington Island State School

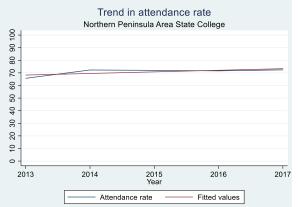


Figure 233 Trend in attendance rate— Northern Peninsula Area State College

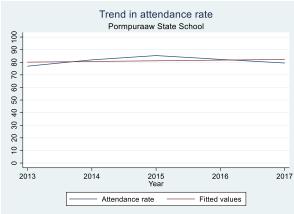


Figure 234 Trend in attendance rate— Pormpuraaw State School

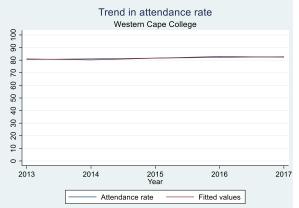


Figure 235 Trend in attendance rate— Western Cape College

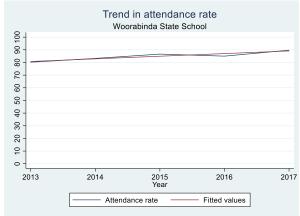


Figure 236 Trend in attendance rate— Woorabinda State School

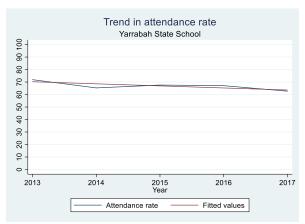
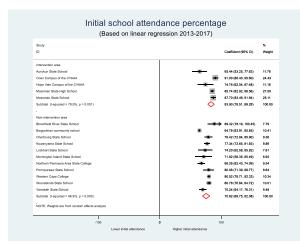


Figure 237 Trend in attendance rate— Yarrabah State School

## 3.3.2 Meta-analyses



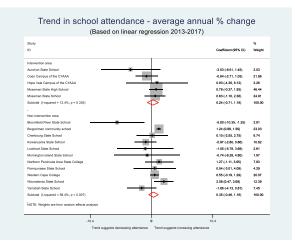


Figure 238 Initial school attendance percentage

Figure 239 Trend in school attendance

# 3.3.2.1 Initial percentage estimate

The results of the meta-analyses of the OLS regression analyses indicate that there was significant variability in the initial rate of school attendance in 2013 in both the intervention schools ( $I^2 = 78.9\%$  p<0.01), and the comparison schools ( $I^2 = 96.9\%$  p<0.001). Moderator analyses indicated that there was no significant difference between the initial estimates of school attendance in 2013 in the pooled intervention schools compared to the pooled comparison schools.

#### 3.3.2.2 Trend estimate

The overall pooled effect in the intervention schools and comparison schools are not significantly different from zero. There was no significant variability amongst intervention schools ( $I^2$ =12.4%, p=0.335) but there was significant variability amongst comparison schools ( $I^2$ =58.4%, p<0.01). However, moderator analysis showed that there was no significant difference between the trends in the pooled intervention schools and in the pooled comparison schools.

# 3.3.2.3 Summary

Overall, the meta-analyses of the results of the OLS regression estimates indicate that there was no significant difference between the pooled intervention schools and the pooled comparison schools, on either the initial rate of attendance, or the trend in attendance from 2013 to 2017. There is no evidence from these analyses to suggest that the FRC intervention has led to an increase in school attendance in the years since 2013.

	Aurukun	Coen	Hope Vale	Mossman Gorge	Overall
School attendance					

Legend:

No significant impact
 Positive impact
 Negative impact

# 3.4 Results—child safety data

# 3.3.3 Graphing

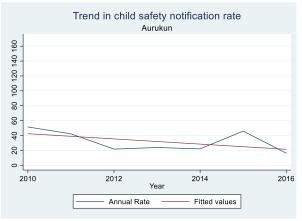


Figure 240 Trend in child safety notification rate—Aurukun

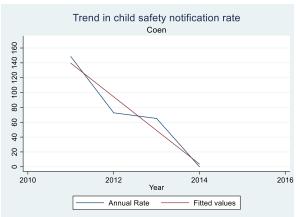


Figure 241 Trend in child safety notification rate—Coen



Figure 242 Trend in child safety notification rate—Hope Vale

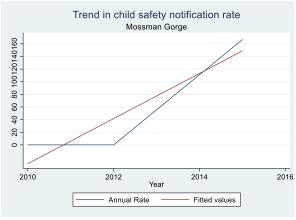


Figure 243 Trend in child safety notification rate—Mossman Gorge

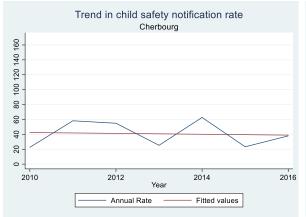


Figure 244 Trend in child safety notification rate—Cherbourg

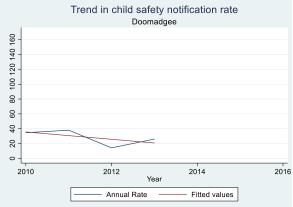


Figure 245 Trend in child safety notification rate—Doomadgee

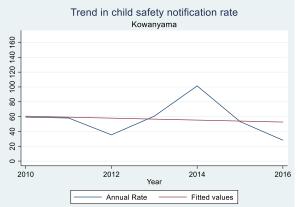


Figure 246 Trend in child safety notification rate—Kowanyama

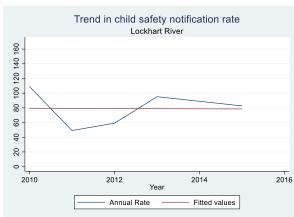


Figure 247 Trend in child safety notification rate—Lockhart River

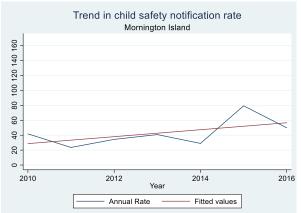


Figure 248 Trend in child safety notification rate—Mornington Island

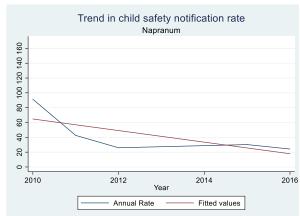


Figure 249 Trend in child safety notification rate—Napranum

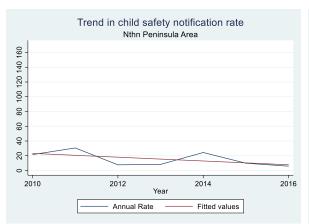


Figure 250 Trend in child safety notification rate—Northern Peninsula Area

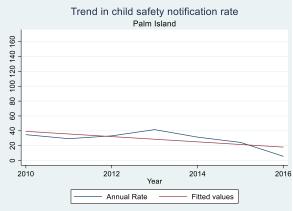


Figure 251 Trend in child safety notification rate—Palm Island

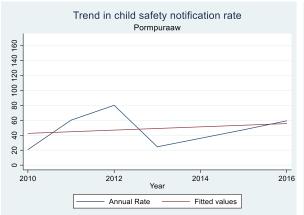


Figure 252 Trend in child safety notification rate—Pormpuraaw

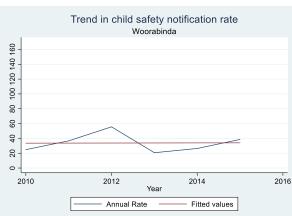


Figure 253 Trend in child safety notification rate—Woorabinda

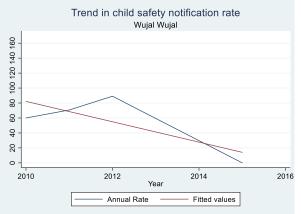


Figure 254 Trend in child safety notification rate—Wujal Wujal

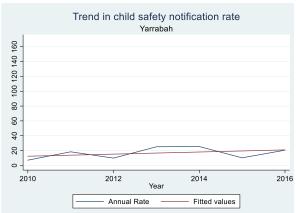


Figure 255 Trend in child safety notification rate—Yarrabah

# 3.3.4 Meta-analyses

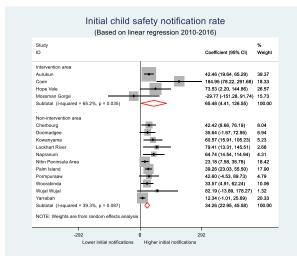


Figure 256 Initial child safety notifications

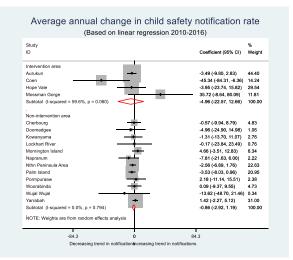


Figure 257 Trend in child safety notifications

### 3.3.4.1 Initial rate estimate

The results of the meta-analyses of the OLS regression analyses indicate that there was significant variability in the initial rate of child safety notifications in 2010 in both the intervention areas ( $I^2 = 605.2\%$  p<0.05), but that there was no significant variability among the comparison areas ( $I^2 = 39.2\%$  p=0.087). Moderator analyses indicated that there was no significant difference between the initial estimates of child safety notifications in 2010 in the pooled intervention communities compared to the pooled comparison communities.

#### 3.3.4.2 Trend estimate

Of the intervention communities, only Coen showed a decreasing trend in child safety notifications since 2010 (-43.34 per 100,000 per year; CI: -84.31 to -6.36). This trend was significantly lower than the (non-significant) trend in child safety notifications seen in the comparison areas. The overall pooled effect in the intervention areas and comparison areas are not significantly different from zero, and there was no significant variability amongst intervention communities ( $I^2$ =59.6%, p=0.06) or the comparison communities ( $I^2$ =0%, p=0.794). Moderator analysis showed that there was no significant difference between the trends in the pooled intervention areas and in the pooled comparison areas.

# *3.3.4.3 Summary*

Overall, the meta-analyses of the results of the OLS regression estimates indicate that there was no significant difference between the pooled intervention areas and the pooled comparison areas, on either the estimate of the initial rate of child safety notifications in 2010, or the trend in notifications from 2010 to 2016. There is no evidence from these analyses to suggest that the FRC intervention has led to a change in child safety notifications in the years since 2010, except for in Coen, which has seen a significant relative decrease in child safety notifications during this period.

	Aurukun	Coen	Hope Vale	Mossman Gorge	Overall
Child safety notifications	•		•		

Legend:

No significant impact
 Positive impact
 Negative impact

### 3.5 Results—FRC individual data

# 3.5.1 Descriptive analysis

Of the total sample, 52.4% (n=963) were male and 47.6% (n=875) were female. 45.4% (n=836) were from Aurukun, 35.4% (n=652) from Hope Vale, 10.3% (190) from Coen, and the remaining 8.9% (n=164) were from Mossman Gorge.

Table 18 shows the number of spells of CYIM that clients have had over their history. The majority (56.9%) of FRC clients had no spells of CYIM. Of the 43.1% of FRC clients who had some time on CYIM, over half (52.6%) had only one spell and over a quarter (26.8%) had two spells. The remaining 20.5% had 3 or more spells.

Table 18 Number of Income Management spells by FRC clients and CYIM clients

Number of CYIM spells	n	% all FRC clients	% all CYIM clients
0	1,048	56.89	-
1	418	22.69	52.64
2	213	11.56	26.83
3	110	5.97	13.85
4	43	2.33	5.42
5	8	0.43	1.01
6	2	0.11	0.25
Total	1,842	100	100

Table 19 shows the highest percentage of CYIM that each client had over their history. The majority (68.5%) had been on a 75% quarantining maximum, a quarter (25.6%) had been on a 90% maximum, while only 5.9% of CYIM clients had been on a 60% maximum during their history.

Table 19 Maximum rate of CYIM over client history

Highest CYIM %	n.	% of CYIM clients
60.00	47	5.92
75.00	544	68.51
90.00	203	25.57
Total	794	100.00

**Error! Reference source not found.** (below) shows the FRC clients who have been on CYIM, and graphs the proportion of their FRC time that was spent on CYIM during their history. The 794 FRC clients with at least one period of CYIM spent an average of 28.2% of their FRC history on CYIM (standard deviation = 19.81%; minimum = 0.85%; maximum = 100%).

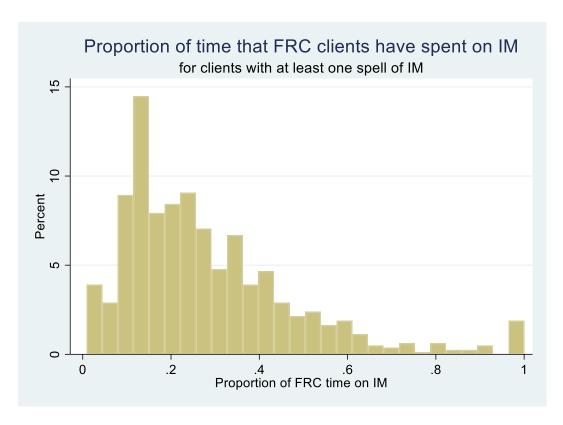


Figure 258 Proportion of FRC time spent on CYIM

Table 20 shows the prevalence and incidence of breaches by type, for the 1842 FRC clients in the dataset. The results are ordered by prevalence. It is important to note that there is a large variation in the length of time that clients have been monitored, and therefore individuals have had different lengths of time at risk for breaching. These results are purely descriptive of the proportion of FRC clients who have breached, and the average number of breaches per client, over their individual histories with FRC.

Table 20 Prevalence and incidence of breaches, by type

	Prevalence			Incidence (all clients)		Incidence (clients with at least one breach of that type)	
	(Ever Breached	,		`	f Breaches)	`	er of Breaches)
Type of Breach	% with breach	Mean	SD	Mean	SD	Mean	SD
Magistrates Court	79%	0.79	0.41	3.33	3.63	4.23	3.59
Dept Education	47%	0.47	0.50	6.51	11.00	13.97	12.46
Child safety	42%	0.42	0.49	1.14	1.97	2.69	2.24
DV Order	21%	0.21	0.41	0.26	0.56	1.22	0.55
Housing	15%	0.15	0.36	0.30	0.90	1.98	1.41
DVO Breach	7%	0.07	0.25	0.08	0.30	1.15	0.38
School Enrolment	6%	0.06	0.23	0.07	0.33	1.29	0.58
District Court	4%	0.04	0.19	0.05	0.25	1.20	0.53
Childrens Court	1%	0.01	0.11	0.02	0.18	1.43	0.67

The most *prevalent* breach type is from the Magistrates Court. The results show that almost four out of five (79%) FRC clients have at least one Magistrates Court breach, with an average of 3.3 breaches per person. However, the highest *incidence* of breaches is from the Department of Education. Almost half (47%) of all FRC clients have recorded a Department of Education breach, with an average of 6.5 breaches per person (averaged across all clients). Furthermore, Table 20 demonstrates that once an individual client has a breach of one type, they are likely to have multiple breaches of the same type. This clustering is particularly apparent for Department of Education breaches, where the average number of breaches for clients who have had at least one breach of this type is 14.

Table 21 shows that just over a third (35.99%) of all FRC clients had breaches of only one type, whilst the majority (63%) of clients had more than one breach type. A total of 16% of clients had four or more of the eight possible breach types.

Table 21 Distribution of multiple types of breaches over client history

Number of breach types	Number of clients	Percent
0	13	0.71
1	663	35.99
2	480	26.06
3	387	21.01
4	215	11.67
5	70	3.80
6	14	0.76
Total	1,842	100.00

Having received more than one type of breach notification is strongly associated with CYIM (Chi²(6)=280.28, p<0.001). As Table 22 shows, there is a significant relationship between multiagency breach histories and the likelihood of having had at least one period of CYIM. Only 21.6% of FRC clients who had only one type of breach have been on CYIM at some point; however, this percentage steadily climbs as the number of breach types increases. The 13 clients with no breaches were all voluntarily on CYIM.

Table 22 Distribution of multiple breach types over client history

	Income Management				
Number of breach types	No CYIM	IM	n		
0	0%	100.00%	13		
1	78.43%	21.57%	663		
2	58.96%	41.04%	480		
3	40.83%	59.17%	387		
4	31.16%	68.84%	215		
5	25.71%	74.29%	70		
6	14.29%	85.71%	14		
Total	56.89%	43.11%	1842		

# 3.5.2 Multilevel logistic regression analysis

The results of the multilevel logistic regression analysis on CYIM, by type of breach to date and community, are shown in Table 23 (below). This model analysed the histories of 1842 unique clients, who each had between 1 and 121 months of data, with an average of 62.3 months (just over five years).

Table 23 Results of multilevel logistic regression on Income Management, by type of breach to

Observations per group							
Group	Number	Min	Avg	Max			
Community	4	9,159	28,681	57,519			
Client	1,842	1	62.3	121			
Wald chi <sup>2</sup> (9)			871.35				
Prob>chi <sup>2</sup>		<0.0001					

CYIM	Odds Ratio	SE	Z	P>z	95% LCL	95% UCL
Child Safety	1.895	0.081	14.92	0.000	1.742	2.060
Childrens Court	0.153	0.158	-1.82	0.069	0.020	1.161
Department of Education	1.579	0.066	10.97	0.000	1.455	1.713
District Court	0.661	0.101	-2.71	0.007	0.490	0.892
DV Breach	0.712	0.079	-3.06	0.002	0.593	0.885
DV Order	1.269	0.073	4.16	0.000	1.134	1.420
Housing	1.251	0.063	4.49	0.000	1.135	1.138
Magistrates Court	2.011	0.105	13.42	0.000	1.816	2.227
School Enrolment	1.283	0.077	4.17	0.000	1.141	1.442
Constant term	0.008	0.003	-12.83	0.000	0.004	0.018

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Random Effects Parameters	Estimate	SE	95% LCL	95% UCL
Community	0.494	0.376	0.111	2.200
Client	8.247	0.481	7.357	9.246
LR test vs logistic model	chi <sup>2</sup> (2)	22881.49	Prob>chi <sup>2</sup>	< 0.001

The overall model is highly statistically significant (Wald  $\text{Chi}^2$  (9) = 871.35 p<0.001). The likelihood ratio test that the multilevel model was a better fit for the data than a one-level logistic model is also highly significant ( $\text{chi}^2(2) = 2281.49 \text{ p} < 0.001$ ), demonstrating that the multilevel approach was appropriate.

After controlling for the effects of each of the other types of breach that appeared in the dataset, eight of the nine breach types were significant predictors of CYIM. Six breach types increased the odds of CYIM, and two decreased the odds.

The breach type that was the strongest predictor of CYIM was Magistrates Court breaches, which doubled the odds of client being on CYIM (OR=2.011, p<0.001). Having had a Child Safety breach to date increased the odds of CYIM by 89.5% (OR=1.895, p<0.001); a Department of Education breach

to date increased the odds of CYIM by 57.9% (OR=1.579, p<0.001); a School Enrolment breach to date increased the odds of CYIM by 28.3% (OR=1.283, p<0.001); a Domestic Violence Order increased the odds of CYIM by 26.9% (OR=1.269, p<0.001); and a Housing breach to date increased the odds of CYIM by 25.1% (OR=1.251, p<0.001). There was no significant impact of Childrens Court breaches.

Conversely, having had at least one District Court breaches *reduced* the odds of CYIM by 33.9% (OR=0.661, p=0.007), and having had at least one breach of a Domestic Violence Order reduced the odds of CYIM by 28.8% (OR=0.712, p=0.002).

Note that these odds are associated with *prevalence*, and not incidence; this analysis models the impact of having had *at least one* breach of a given type, rather than modelling the impact of each additional breach.

# 3.5.3 Discrete time event history analysis

An initial multilevel regression model was conducted with the time to breach as the outcome. The model controlled for the clustering by community and client, but had no additional explanatory covariates. This initial variance components model demonstrated that there was significant clustering in outcomes by community. In particular, it showed that the time to breach was shorter in Aurukun than the average across all communities, and significantly shorter than the average time to breach in Coen; however the effect in Aurukun was not significantly different than that seen in either Hope Vale or Mossman Gorge.

Figure 259 (below) demonstrates this community effect graphically. The red line represents the average time between breaches across all communities when pooled. The circles show the average effect for each community, with 'whiskers' showing the 95% confidence intervals. When the confidence intervals cross either the red (average) line, or overlap the confidence intervals of another community, it demonstrates that there was a statistically significant difference between the outcomes.

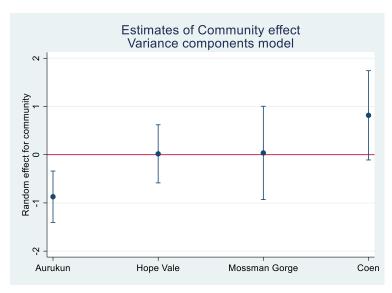


Figure 259 Community effect from variance components model

The results of the discrete time event history analysis on time to breach, with covariates, are shown in Table 24 (below). This model analysed the histories of 1838 unique clients across four communities. Clients who have volunteered to be placed on CYIM were excluded from this analysis. Each client had between 1 and 121 months of data, with an average of 62 months (just over five years). Communities had between 9159 and 57518 observations (clustered within individual clients), with an average of 28,677 observations per community.

The overall model is highly statistically significant (Wald Chi<sup>2</sup> (10) = 26751.43 p<0.0001), and the coefficients for each of the explanatory variables were statistically significant. The likelihood ratio test that the multilevel model was a better fit for the data than a one-level linear model is also highly significant (Chi<sup>2</sup> (2) = 64920.05 p<0.001), demonstrating that the multilevel approach was appropriate. However, after controlling for the clustering of clients by community and their history of breaching, there was no significant variations in the likelihood of CYIM between communities.

Table 24 Results of discrete time event history analysis on time to breach

Observations per group							
Group	Number	Min	Avg	Max			
Community	4	9,159	28,677	57,518			
Client	1,838	1	62	121			
Wald chi <sup>2</sup> (10)	26751.43						
Prob>chi <sup>2</sup>	<0.0001						

Months since last breach notification	Coef.	SE	Z	P>z	95% LCL	95% UCL
Number of CYIM spells to date	2.316	0.075	31.01	<0.001	2.1700	2.1628
Months since end of last CYIM spell	0.267	0.006	41.60	<0.001	0.2541	0.2972
Months since end of last CYIM spell 2	-0.001	0.000	-14.95	<0.001	-0.0016	-0.0013
Number of times services referred	2.129	0.061	34.75	<0.001	2.0085	2.2486
Months since last service referral	0.341	0.005	64.01	<0.001	0.3312	0.3521
Months since last service referral <sup>2</sup>	-0.002	0.000	-27.68	<0.001	-0.0020	-0.0018
Client is voluntary	39.364	9.997	3.94	<0.001	19.7695	58.9585
Client age	-3.691	0.048	-77.67	<0.001	-3.7838	-3.5975
Client age <sup>2</sup>	0.016	0.001	26.14	<0.001	0.0144	0.0167
Female	-3.407	1.521	-2.24	0.025	-6.3880	-0.4261
Constant term	70.945	10.132	7.00	<0.001	51.0860	90.8031

Estimate	SE	95% LCL	95% UCL
4.69E-08	1.09E-06	6.84E-28	3.21E+12
1047.318	39.188	976.261	1127.011
89.477	0.378	88.739	90.222
chi <sup>2</sup> (2)	64920.05	Prob>chi <sup>2</sup>	<0.001
	4.69E-08 1047.318 89.477	4.69E-08 1.09E-06 1047.318 39.188 89.477 0.378	4.69E-08       1.09E-06       6.84E-28         1047.318       39.188       976.261         89.477       0.378       88.739

### 3.2.2.10 Income management

There was a significant positive relationship between the number of CYIM spells that a person had experienced to date and the time since their last breach notification. The effect of this relationship is that, controlling for all other variables in the model, each additional spell of CYIM that a client had experienced extended the time since their last breach notification by an additional 2.3 months (on average).

The time since a client had last ended a spell of CYIM had a significant relationship to the time since their last breach notification. This variable was also entered as a squared or quadratic term, which allows the model to estimate a curved relationship between the variable and the outcome. This can be useful as the effects of some interventions may wane after a period of time, and this modelling approach allows an estimation of when the effectiveness of the intervention may begin to diminish. The results show that there is a significant positive curvilinear relationship between the time since the end of the last CYIM spell and the time since last breach. On average, for every month since the end of the last CYIM spell, the time since last breach notification is extended by approximately a week. This effect slowly lessens over time, but at an effectively trivial scale.

Together these results indicate that, on average, a client who has been on CYIM at any point will have a longer time between breaches than an equivalent client who has not been on CYIM, and that the effect is sustained over time.

# 3.2.2.11Service referral

There was a significant positive relationship between the number of times that a client has had services referred and the time since their last breach notification. The effect of this relationship is that, controlling for all other variables in the model, each additional set of service referrals that a client had experienced extended the time since their last breach notification by an additional 2.1 months (on average).

The time since a client had last been referred to services also had a significant relationship to the time since their last breach notification. This variable was also entered as a quadratic term. The results show that there is a significant positive curvilinear relationship between the time since the last service referral and the time since last breach. On average, for every month since the last service referral, the time since last breach notification is extended by approximately ten days. This effect slowly lessens over time, but at an effectively trivial scale, as the turning point is after 90 months (just over seven and a half years).

Together these results indicate that, on average, a client who has been referred to services will have a longer time between breaches than an equivalent client who has not been referred (over and above the effect of periods of CYIM), and that the effect is sustained over time.

## 3.2.2.12 Other characteristics

Unsurprisingly, there is a very strong relationship between a client being voluntary and the length of time since their last breach. Voluntary clients have an average of 39 additional months between breaches, compared to involuntary clients with equivalent CYIM and service provision histories). There is a significant negative relationship between age and time between breaches. For every

additional year of age, the length of time between breaches is reduced by 3.7 months. This indicates that older clients are likely to breach more frequently than younger clients. Finally, women have a shorter length of time between breaches than otherwise equivalent men, with a reduction of 3.4 months, indicating that, on average and controlling for all other variables, women are slightly (but significantly) more likely to breach than men. It is likely that this sex difference is because the majority of notices originate from the Department of Education, and because women are seen as the caretakers of children they are more likely than men to be listed in school attendance notices.