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Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children (Review)

Gibson M, Thomson H, Banas K, Lutje V, McKee MJ, Martin SP, Fenton C, Bamba C, Bond L

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Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children (Review)

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TABLE OF CONTENTS

HEADER	1
ABSTRACT	1
PLAIN LANGUAGE SUMMARY	2
SUMMARY OF FINDINGS FOR THE MAIN COMPARISON	4
BACKGROUND	6
OBJECTIVES	9
METHODS	9
RESULTS	14
Figure 1.	15
Figure 2.	17
Figure 3.	19
Figure 4.	22
Figure 5.	28
Figure 6.	29
Figure 7.	33
Figure 8.	34
Figure 9.	34
Figure 10.	35
Figure 11.	35
Figure 12.	36
Figure 13.	37
Figure 14.	38
Figure 15.	39
Figure 16.	40
Figure 17.	40
Figure 18.	41
ADDITIONAL SUMMARY OF FINDINGS	46
DISCUSSION	50
AUTHORS' CONCLUSIONS	54
ACKNOWLEDGEMENTS	55
REFERENCES	55
CHARACTERISTICS OF STUDIES	67
DATA AND ANALYSES	102
Analysis 1.1. Comparison 1 Time point 1 Maternal mental health, Outcome 1 Maternal mental health continuous.	113
Analysis 1.2. Comparison 1 Time point 1 Maternal mental health, Outcome 2 Maternal mental health dichotomous.	114
Analysis 2.1. Comparison 2 Time point 2 Maternal mental health, Outcome 1 Maternal mental health continuous.	115
Analysis 2.3. Comparison 2 Time point 2 Maternal mental health, Outcome 3 Maternal mental health dichotomous.	116
Analysis 3.1. Comparison 3 Time point 3 Maternal mental health, Outcome 1 Maternal mental health continuous.	117
Analysis 3.2. Comparison 3 Time point 3 Maternal mental health, Outcome 2 Maternal mental health dichotomous.	118
Analysis 4.1. Comparison 4 Time point 1 Maternal physical health, Outcome 1 In poor health (%).	119
Analysis 5.1. Comparison 5 Time point 2 Maternal physical health, Outcome 1 In good or excellent health (%).	119
Analysis 6.1. Comparison 6 Time point 3 Maternal physical health, Outcome 1 Self-reported health (1-5).	120
Analysis 6.2. Comparison 6 Time point 3 Maternal physical health, Outcome 2 In good or very good health (%).	120
Analysis 7.1. Comparison 7 Time point 1 Child mental health, Outcome 1 Child behaviour problems continuous.	121
Analysis 7.2. Comparison 7 Time point 1 Child mental health, Outcome 2 Child behaviour problems dichotomous.	122
Analysis 8.1. Comparison 8 Time point 2 Child mental health, Outcome 1 Child behaviour problems continuous.	123
Analysis 8.2. Comparison 8 Time point 2 Child mental health, Outcome 2 Adolescent mental health dichotomous.	124
Analysis 9.1. Comparison 9 Time point 3 Child mental health, Outcome 1 Child behaviour problems continuous.	125
Analysis 9.2. Comparison 9 Time point 3 Child mental health, Outcome 2 Child behaviour problem continuous excluding SSP Applicants.	126
Analysis 9.3. Comparison 9 Time point 3 Child mental health, Outcome 3 NEWWS 2001 Child mental health.	127

Analysis 10.1. Comparison 10 Time point 1 Child physical health, Outcome 1 General health rating (1-5).	128
Analysis 11.1. Comparison 11 Time point 2 Child physical health, Outcome 1 Child physical health continuous.	129
Analysis 11.2. Comparison 11 Time point 2 Child physical health, Outcome 2 Child physical health dichotomous.	130
Analysis 12.1. Comparison 12 Time point 3 Child physical health, Outcome 1 Child physical health continuous.	131
Analysis 12.2. Comparison 12 Time point 3 Child physical health, Outcome 2 Child physical health dichotomous.	132
Analysis 13.1. Comparison 13 Time point 1 Employment status, Outcome 1 Currently employed (%).	132
Analysis 13.2. Comparison 13 Time point 1 Employment status, Outcome 2 Ever employed (%).	133
Analysis 14.1. Comparison 14 Time point 2 Employment status, Outcome 1 Ever employed (%).	134
Analysis 14.2. Comparison 14 Time point 2 Employment status, Outcome 2 Ever employed full-time since randomisation (%)	135
Analysis 14.3. Comparison 14 Time point 2 Employment status, Outcome 3 Ever employed full-time excluding MFIP (%)	135
Analysis 14.4. Comparison 14 Time point 2 Employment status, Outcome 4 Employed part-time (%).	136
Analysis 15.1. Comparison 15 Time point 3 Employment status, Outcome 1 Currently employed (%).	137
Analysis 15.2. Comparison 15 Time point 3 Employment status, Outcome 2 Ever employed (%).	138
Analysis 15.3. Comparison 15 Time point 3 Employment status, Outcome 3 Currently employed full-time (%).	139
Analysis 15.4. Comparison 15 Time point 3 Employment status, Outcome 4 Currently employed part-time (%).	140
Analysis 16.1. Comparison 16 Time point 1 Income, Outcome 1 Total income.	141
Analysis 16.2. Comparison 16 Time point 1 Income, Outcome 2 Earnings.	141
Analysis 17.1. Comparison 17 Time point 2 Income, Outcome 1 Total income.	143
Analysis 17.2. Comparison 17 Time point 2 Income, Outcome 2 Total income excluding CJF.	144
Analysis 17.3. Comparison 17 Time point 2 Income, Outcome 3 Average earnings in year of survey (USD).	145
Analysis 18.1. Comparison 18 Time point 3 Income, Outcome 1 Total income.	146
Analysis 18.3. Comparison 18 Time point 3 Income, Outcome 3 Total earnings.	148
Analysis 19.1. Comparison 19 Time point 1 Welfare receipt, Outcome 1 Total AFDC received year 2 (USD).	150
Analysis 19.2. Comparison 19 Time point 1 Welfare receipt, Outcome 2 Proportion of sample receiving welfare (%).	150
Analysis 20.1. Comparison 20 Time point 2 Welfare receipt, Outcome 1 Average annual welfare benefit.	152
Analysis 20.2. Comparison 20 Time point 2 Welfare receipt, Outcome 2 Average annual welfare benefit excluding MFIP	153
Analysis 20.3. Comparison 20 Time point 2 Welfare receipt, Outcome 3 Proportion of sample receiving welfare.	154
Analysis 21.1. Comparison 21 Time point 3 Welfare receipt, Outcome 1 Total welfare benefit received.	155
Analysis 21.2. Comparison 21 Time point 3 Welfare receipt, Outcome 2 Total welfare payments years 1-5 (USD).	156
Analysis 21.5. Comparison 21 Time point 3 Welfare receipt, Outcome 5 Proportion of sample receiving welfare.	157
Analysis 22.1. Comparison 22 Time point 1 Health insurance, Outcome 1 Respondent has health insurance (%).	158
Analysis 22.2. Comparison 22 Time point 1 Health insurance, Outcome 2 Child health insurance (%).	159
Analysis 23.1. Comparison 23 Time point 2 Health insurance, Outcome 1 Health insurance (%).	160
Analysis 24.1. Comparison 24 Time point 3 Health insurance, Outcome 1 Health insurance.	161
ADDITIONAL TABLES	162
APPENDICES	166
WHAT'S NEW	197
HISTORY	197
CONTRIBUTIONS OF AUTHORS	197
DECLARATIONS OF INTEREST	198
SOURCES OF SUPPORT	198
DIFFERENCES BETWEEN PROTOCOL AND REVIEW	199
INDEX TERMS	199

[Intervention Review]

Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

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ABSTRACT

Background

Lone parents in high-income countries have high rates of poverty (including in-work poverty) and poor health. Employment requirements for these parents are increasingly common. 'Welfare-to-work' (WtW) interventions involving financial sanctions and incentives, training, childcare subsidies and lifetime limits on benefit receipt have been used to support or mandate employment among lone parents. These and other interventions that affect employment and income may also affect people's health, and it is important to understand the available evidence on these effects in lone parents.

Objectives

To assess the effects of WtW interventions on mental and physical health in lone parents and their children living in high-income countries. The secondary objective is to assess the effects of welfare-to-work interventions on employment and income.

Search methods

We searched the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE Ovid, Embase Ovid, PsycINFO EBSCO, ERIC EBSCO, SocINDEX EBSCO, CINAHL EBSCO, Econlit EBSCO, Web of Science ISI, Applied Social Sciences Index and Abstracts (ASSIA) via Proquest, International Bibliography of the Social Sciences (IBSS) via ProQuest, Social Services Abstracts via Proquest, Sociological Abstracts via Proquest, Campbell Library, NHS Economic Evaluation Database (NHS EED) (CRD York), Turning Research into Practice (TRIP), OpenGrey and Planex. We also searched bibliographies of included publications and relevant reviews, in addition to many relevant websites. We identified many included publications by handsearching. We performed the searches in 2011, 2013 and April 2016.

Selection criteria

Randomised controlled trials (RCTs) of mandatory or voluntary WtW interventions for lone parents in high-income countries, reporting impacts on parental mental health, parental physical health, child mental health or child physical health.

Data collection and analysis

One review author extracted data using a standardised extraction form, and another checked them. Two authors independently assessed risk of bias and the quality of the evidence. We contacted study authors to obtain measures of variance and conducted meta-analyses where possible. We synthesised data at three time points: 18 to 24 months (T1), 25 to 48 months (T2) and 49 to 72 months (T3).

Main results

Twelve studies involving 27,482 participants met the inclusion criteria. Interventions were either mandatory or voluntary and included up to 10 discrete components in varying combinations. All but one study took place in North America. Although we searched for parental health outcomes, the vast majority of the sample in all included studies were female. Therefore, we describe adult health outcomes as 'maternal' throughout the results section. We downgraded the quality of all evidence at least one level because outcome assessors were not blinded. Follow-up ranged from 18 months to six years. The effects of welfare-to-work interventions on health were generally positive but of a magnitude unlikely to have any tangible effects.

At T1 there was moderate-quality evidence of a very small negative impact on maternal mental health (standardised mean difference (SMD) 0.07, 95% Confidence Interval (CI) 0.00 to 0.14; N = 3352; studies = 2); at T2, moderate-quality evidence of no effect (SMD 0.00, 95% CI 0.05 to 0.05; N = 7091; studies = 3); and at T3, low-quality evidence of a very small positive effect (SMD -0.07, 95% CI -0.15 to 0.00; N = 8873; studies = 4). There was evidence of very small positive effects on maternal physical health at T1 (risk ratio (RR) 0.85, 95% CI 0.54 to 1.36; N = 311; 1 study, low quality) and T2 (RR 1.06, 95% CI 0.95 to 1.18; N = 2551; 2 studies, moderate quality), and of a very small negative effect at T3 (RR 0.97, 95% CI 0.91 to 1.04; N = 1854; 1 study, low quality).

At T1, there was moderate-quality evidence of a very small negative impact on child mental health (SMD 0.01, 95% CI -0.06 to 0.09; N = 2762; studies = 1); at T2, of a very small positive effect (SMD -0.04, 95% CI -0.08 to 0.01; N = 7560; studies = 5), and at T3, there was low-quality evidence of a very small positive effect (SMD -0.05, 95% CI -0.16 to 0.05; N = 3643; studies = 3). Moderate-quality evidence for effects on child physical health showed a very small negative effect at T1 (SMD -0.05, 95% CI -0.12 to 0.03; N = 2762; studies = 1), a very small positive effect at T2 (SMD 0.07, 95% CI 0.01 to 0.12; N = 7195; studies = 3), and a very small positive effect at T3 (SMD 0.01, 95% CI -0.04 to 0.06; N = 8083; studies = 5). There was some evidence of larger negative effects on health, but this was of low or very low quality.

There were small positive effects on employment and income at 18 to 48 months (moderate-quality evidence), but these were largely absent at 49 to 72 months (very low to moderate-quality evidence), often due to control group members moving into work independently. Since the majority of the studies were conducted in North America before the year 2000, generalisability may be limited. However, all study sites were similar in that they were high-income countries with developed social welfare systems.

Authors' conclusions

The effects of WtW on health are largely of a magnitude that is unlikely to have tangible impacts. Since income and employment are hypothesised to mediate effects on health, it is possible that these negligible health impacts result from the small effects on economic outcomes. Even where employment and income were higher for the lone parents in WtW, poverty was still high for the majority of the lone parents in many of the studies. Perhaps because of this, depression also remained very high for lone parents whether they were in WtW or not. There is a lack of robust evidence on the health effects of WtW for lone parents outside North America.

PLAIN LANGUAGE SUMMARY

How do welfare-to-work interventions for lone parents affect adult and child health?

Lone parents in wealthy countries have disproportionately high levels of poverty and ill health. Governments argue that both poverty and health might improve if lone parents started working or worked more, while some researchers think that working at the same time as raising children alone could be stressful and make health worse.

Welfare-to-work interventions (WtW) are designed to either encourage or require lone parents to look for work. Earnings top-ups, stopping or reducing benefits, training, helping to pay for child care and limits on how long benefits are paid have all been used to try

to increase lone parent employment. In order to understand how requiring lone parents to take part in WtW programmes affects their and their children's health, we systematically reviewed studies that collected information on these effects.

We found 12 studies involving 27,482 participants that compared groups of lone parents in WtW interventions with lone parents who continued to receive welfare benefits in the normal way. All of the studies were at high risk of bias because the staff who collected the data knew when respondents were in the intervention group. In some studies, lone parents who were not in the intervention group were affected by similar changes to welfare policy that applied to all lone parents. We used statistical techniques to combine the results of different studies. These analyses suggest that WtW does not have important effects on health. Employment and income were slightly higher 18 to 48 months after the start of the intervention, but there was little difference 49 to 72 months after the studies began. In a number of studies, lone parents who were not in WtW interventions found jobs by themselves over time. It is possible that effects on health were small because there was not much change in employment or income. Even when employment and income were higher for the lone parents in WtW, most participants continued to be poor. Perhaps because of this, depression also remained very high for lone parents whether they were in WtW or not.

All but one of the studies took place in the United States or Canada before the year 2000. This means it is difficult to be sure whether WtW would have the same effects in different countries at other times.

SUMMARY OF FINDINGS FOR THE MAIN COMPARISON *[Explanation]*

Welfare to work for lone parents. Maternal health outcomes						
Summaries of all health outcomes reported in the review are provided in Web appendix 1 .						
Patient or population: lone parents Settings: high income countries Intervention: welfare to work						
Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Welfare to work				
T1 maternal mental health CES-D (mean score) ^a	-	The mean T1 maternal mental health in the intervention groups was 0.07 standard deviations higher (0.00 to 0.14 higher)	-	3352 (2 studies)	⊕⊕⊕○ Moderate ^b	Very small negative effect
T2 maternal mental health CES-D (mean score) ^a	-	The mean T2 maternal mental health in the intervention groups was 0.00 standard deviations higher (0.05 lower to 0.05 higher)	-	7091 (3 studies)	⊕⊕⊕○ Moderate ^b	No effect
T3 maternal mental health CES-D (mean score) ^a	-	The mean T3 maternal mental health in the intervention groups was 0.07 standard deviations lower (0.15 lower to 0 higher)	-	8873 (4 studies)	⊕⊕⊕○ Moderate ^{b,c}	Very small positive effect

T1 maternal self-rated health % in poor health. Event defined as poor health	201 per 1000	171 per 1000 (109 to 274)	RR 0.85 (0.54 to 1.36)	311 (1 study)	⊕○○○ Low^{b,d}	Very small positive effect
T2 maternal self-rated health % in good or excellent health. Event defined as good/excellent health	347 per 1000	367 per 1000 (329 to 409)	RR 1.06 (0.95 to 1.18)	2551 (2 studies)	⊕⊕⊕○ Moderate^b	Very small positive effect
T3 maternal self-rated health % in good or very good health. Event defined as good/excellent health	664 per 1000	645 per 1000 (605 to 691)	RR 0.97 (0.91 to 1.04)	1854 (1 study)	⊕⊕○○ Low^{b,e}	Very small negative effect

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: confidence interval; **RR**: risk ratio.

Very small effect: unlikely to be substantively important.

Small effect: may be substantively important.

Modest effect: likely to be substantively important.

See [Table 5](#) for further explanation

GRADE Working Group grades of evidence

High quality: further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: we are very uncertain about the estimate.

^a Better indicated by lower values.

^b All studies were downgraded due to high risk of bias in at least one domain.

^c Heterogeneity over 50% and no plausible explanation identified.

^d Confidence interval crosses line of no effect and includes appreciable benefit or harm.

^e UK ERA was at very high risk of bias due to high levels of attrition amongst most deprived groups.

BACKGROUND

Description of the condition

Rates of lone parenthood have increased across all high-income countries in recent decades. Prevalence of lone parenthood ranges from 9% in Italy to 24% in the USA. A meta-analysis conducted by the Organisation for Economic Cooperation and Development (OECD) found that the children of single parents experienced worse outcomes than children in two-parent households across five domains: academic achievement; behavioural outcomes; depression and anxiety; self-esteem; and social relations. However, the magnitude of these effects varies across countries (OECD 2009). The UK is one of the most recent countries to implement wholesale reform of welfare benefits for lone parents. As such, reform is a very current policy issue in the UK, and it provides a useful example of the development of welfare-to-work policy for lone parents. Recent estimates suggest that there are approximately 1.9 million lone parents in the UK, with 23% of all dependent children residing in lone-parent families (Evans 2010). Of these, 737,000 were out of work and claiming welfare benefits in 2008 (Department for Work and Pensions 2012). In 2008, 59% of lone mothers were in paid employment, compared to 71% for couple mothers. Lone parents and their children face high levels of poverty both in and out of work, with 66% of lone-parent families occupying the bottom two income quintiles, compared to 23% of two-parent households (Maplethorpe 2010). In addition to increased risk of poverty, lone parents and their children have higher levels of a range of other adverse outcomes. In 2005, the UK Families and Children Survey (FACS) found that lone mothers were twice as likely as couple mothers to describe their health as 'not good' (14% compared to 7%) (Hoxhallari 2007). Incidence of depression among lone parents is nearly three times that of other groups (Targosz 2003). Lone parents and their children in the UK and other European countries also disproportionately experience a range of other adverse outcomes: psychiatric disease; attempted suicide; alcohol and drugs-related disease (Weitof 2003); and poor educational outcomes (Weitof 2004). Mechanisms linking lone parenthood to poor health may include poverty (Spencer 2005), lack of support (Brown 1997), and stigma (Benzeval 1998). A focus on poverty as key amongst these has in part contributed to the introduction of policies designed to increase lone parents' participation in the labour market.

Historically, many high-income countries with comprehensive welfare systems have made lone parents eligible for welfare benefits and exempted them from labour market participation. This has changed in a number of countries in recent decades, most notably in the USA, where major welfare reform measures were implemented throughout the 1990s. Concern about the growing cost of welfare led to restrictions in eligibility for benefits and the introduction of time limits on welfare receipt (Blank 1997). The UK has until recently maintained a relatively generous policy

towards lone parents, providing welfare benefits and exempting them from work requirements until their youngest child reaches 16. However, in 2008 the UK Government implemented welfare reform legislation requiring lone parents to be available for work for at least 16 hours per week (latterly increased to 25 hours) when their youngest child reached the age of 12. This age threshold dropped further, to 10 years in 2009, 7 years in October 2010 (Department for Work and Pensions 2008), and subsequently to 5 years in 2011-12. The Summer Budget 2015 included a provision to decrease this age threshold to three as of September 2017. These changes have been accompanied by a range of interventions designed to promote labour market participation, including financial sanctions.

Similar restrictions in many OECD countries on social security benefits for lone parents are typically aimed at promoting employment in order to increase income and reduce poverty. In addition, such policies are believed to influence outcomes such as health, parental and child well-being, and family formation (in the USA - see for instance Jagannathan 2004). In the UK, the introduction of welfare-to-work policies for lone parents rests on a belief that engaging in paid work will alleviate the poverty blamed for poor health outcomes in lone parents, and thus has the potential to tackle inequalities in both income and health (Department of Health 2008). In addition to concerns about the increasing cost of welfare payments, policy makers in the UK justify increased conditionality on the basis that working is health promoting and will benefit both lone parents and their children. The Department for Work and Pensions report setting out the case for welfare reform in the UK stated:

"Helping more lone parents into work is good for their health, boosts self-esteem, promotes independence and lifts children out of poverty. . . Having parents in work also boosts children's self-esteem. When parents leave benefit and move into work, their children become more independent, understand the value of money, and gain from treats and activities. There's a trade-off between time and money, but get the balance right and everyone wins" (Department for Work and Pensions 2007).

However, while controlling for poverty in observational studies explains much (though not all) of the increased risk of adverse outcomes experienced by lone parent families (Benzeval 1998), working does not necessarily lift lone parent families out of poverty (Hoxhallari 2007). With regard to health, there is widespread acceptance that a causal relationship exists between employment and health in the general population (Waddell 2006), although this relationship is mediated by the quality of employment (Siegrist 2009). However, the pathways linking work and health may be more complex in lone parents, with the potential for negative as well as positive impacts. On the one hand, working may increase income (though this is not guaranteed) in lone parent families and alleviate the poverty that is linked to adverse health outcomes (Spencer 2000). Working may also increase parental confidence and self-esteem, leading to improved parenting (Michalopoulos

2002). Increased use of formal child care may also improve child outcomes (The NICHD Early Child Care Research Network 1998). However, these positive impacts may be mediated by factors such as job quality and hours worked (Morris 2003b). There is some evidence that time poverty, role strain, and parental absence, contingent upon the parent's attempts to fulfil multiple roles simultaneously, may impact negatively on the health of lone parents and their children. For instance, although lone mothers in Sweden have both higher employment rates and lower poverty than in the UK, they continue to experience poorer outcomes in health and other areas relative to the general population. Some authors hypothesise that this is due to time poverty and the stress engendered by combining child rearing with employment (Weitoft 2003; Whitehead 2000). Thus, there are a number of potentially conflicting mechanisms at play that may influence the health of lone parents who participate in welfare-to-work interventions or enter the labour market. In the context of the widespread implementation of such policies, it is important to gain a better understanding of these issues by locating and synthesising existing evidence.

In the USA, where most welfare-to-work evaluations have taken place, welfare reform was a highly politicised and controversial issue. In part due to this controversy, the federal government required that individual states conduct experimental evaluations of their new welfare-to-work programmes during the period of wholesale reform in the 1990s (Page 1997). As a result, a large evidence base of US randomised controlled trials (RCTs) exists, which has the potential to assist in answering such questions.

Description of the intervention

Welfare-to-work interventions are defined for the purpose of the review as government-financed interventions (which can be delivered by public, private or third sector organisations) that encourage or require participants to take up employment, increase economic activity, or increase their employability. These may be either mandatory or voluntary. Many of the programmes are referred to in acronyms, and we have provided a glossary in Appendix 1 for ease of reference.

Interventions can be differentiated in three ways: in terms of their underpinning ethos; the methods they adopt to promote employment; and their individual programme components. Welfare-to-work programmes may adopt either a caseload reduction (CR) approach or an anti-poverty approach (AP). In the former, the focus is on reducing welfare rolls for political or economic reasons, and the aim is to engage people in the labour market regardless of whether labour market participation leads to any improvement in material circumstances. In contrast, in the poverty reduction approach, there is a recognition that many long-term welfare recipients may be unable to secure employment that provides a wage above the level of benefits, and there is a determination that those who become employed should be lifted out of poverty by

their efforts (Miller 2008). Interventions also differ in terms of the methods they adopt to promote employment. Labour force attachment (LFA) approaches adopt a 'work first' strategy, based on the idea that rapid engagement in employment is the most effective means of promoting economic independence. Human capital development (HCD) approaches focus on education and training (increasing employability), in the belief that, in the long term, acquiring skills or qualifications is likely to assist welfare recipients in attaining higher-quality or more secure employment. These approaches are not mutually exclusive; for instance, an intervention with the primary aim of caseload reduction may employ either LFA or HCD approaches in pursuit of that aim. It should also be noted that these categories constitute 'ideal types'; it is likely that in practice, interventions contain a mixture of approaches or shift emphasis from one approach towards another during the course of the intervention.

A further means of differentiation between interventions is at the level of individual programme components. Welfare-to-work programmes may include a wide range of components, including: earnings supplements; earnings disregards (i.e. a proportion of earned income is disregarded when calculating benefit entitlement); childcare subsidies; requirements to participate in employment or employment-related activity for a specified number of hours per week in order to qualify for financial and other types of support; mandated participation in assigned jobs in order to receive welfare benefits; lifetime limits on receipt of welfare benefits; sanctions; employment training; health insurance subsidies (usually in the form of an extension of transitional US Medicaid entitlement after starting employment); and case management. Again, it is not possible to definitively assign a particular set of components to a given intervention approach; interventions of any approach may include one or more of these components in varying combinations. Certain components are more likely to appear in some types of intervention: for instance, financial incentives are more likely to appear in anti-poverty interventions, while mandatory employment is more likely to appear in caseload reduction programmes. However, other components, such as case management or sanctions, may be employed in interventions using any approach.

Evaluations of these interventions most often compare the intervention with 'usual care' (in the USA, this comprises receipt of the previous benefit, called Aid to Families with Dependent Children (AFDC), which continued to be provided to control groups in intervention trials), although in some cases studies compare LFA and HCD interventions with each other and usual care.

How the intervention might work

The principle aims of welfare-to-work interventions relate to increasing employment and improving other economic outcomes. Some welfare programme evaluations also assess health indicators as secondary outcomes. By contrast, these are the primary

outcomes of interest for this review. There are a number of hypothesised pathways by which interventions aiming to promote labour market participation might impact on the mental or physical health of lone parents and their children. These may vary according to the approach adopted and the components included in the intervention. Evidence from some primary studies suggests that programmes focused on caseload reduction and swift job entry have a negative impact on parental mental health. This is particularly apparent in parents of preschool children and may stem from either increased stress associated with the combination of child care and pressure to start working, or from the tendency to take jobs of low quality when rapid employment take-up is a condition of the intervention (Morris 2008).

Income supplements, in the form of either earnings disregards or financial incentives, might be expected to have a positive impact on health by increasing income. Being subject to benefit time limits or to sanctions for failure to comply with programme requirements could lead to a decrease in income and a concomitant increase in stress. Participating in training and gaining new skills could lead to improved confidence and self-esteem for mothers, with positive effects on parenting and thus on child mental health (Zaslow 2000). Alternatively, requirements to attend training, mandatory employment or other employment preparation activities, while continuing to be solely responsible for child rearing, may place lone parents under increased stress, with negative effects on both parental health and parenting practices (Gennetian 2000). Mothers may have less time to spend with their children, which could lead to decreased interaction and supervision. On the other hand, participating in training or receiving childcare subsidies could involve increased use of formal child care, which may lead to improved educational and social outcomes for children (Morris 2003b). Health insurance subsidies are likely to have a positive health impact by increasing access to health care. The impact of case management may depend on the specific content or tone, which will vary between interventions (Morris 2008).

If the intervention is successful in its primary aim of placing lone parents in employment, a number of other impacts on health may result. If income increases, the parent may be able to provide more or better material and educational resources for their offspring (Gennetian 2000). This could also alleviate stress associated with poverty, thus improving parental health and parenting practices (Morris 2003a). As with participating in training, the time pressure and stress of employment may affect parental mental health and reduce time spent interacting with or supervising children. Potential health benefits that accrue from entering employment are mediated by factors such as job quality/stability, shift patterns and wage levels (Morris 2008). Certain components of an intervention, such as financial incentives/earnings disregards, childcare subsidies and health insurance subsidies, may become available only when the parent is in employment.

The primary focus of this review is the health impact of participating in the intervention, although we are also interested in the

impact of changes in employment or income as a result of participating in the intervention. However, in most cases it is not readily apparent whether changes in health outcomes result from participating in the intervention, or from becoming employed as a result of so doing, since health outcomes are not generally disaggregated by employment outcomes.

Why it is important to do this review

Lone parents are a group who experience social and health disadvantage, with a higher prevalence of health problems than the general population. Employment and employment conditions are recognised to be important social determinants of health (Commission on Social Determinants of Health 2008), and lone parents are more likely than other groups to enter jobs with poor pay and conditions (Evans 2004). Therefore, requirements for lone parents to work or to take part in welfare-to-work interventions are likely to impact positively or negatively on the health of this population group, thereby reducing or increasing health inequalities. In the UK context of a very rapid shift in policy, involving revising the child age threshold downward from 16 to 5 in less than five years, it is of crucial importance to investigate the likely health impacts of this shift. In a wider context, many OECD countries have introduced or increased conditionality for lone parents in recent years, with countries including Australia, the Netherlands and Sweden reducing the youngest child threshold or more rigidly enforcing work requirements (Finn 2010). The Economics Task Group of the Strategic Review of Health Inequalities in England (the Marmot Review) highlighted the lack of knowledge regarding this issue and called for more research to increase understanding of the health impacts of welfare-to-work interventions in lone parents (Suhrcke 2009).

A sizeable evidence base on the health impacts of welfare-to-work interventions aimed at lone parents exists, consisting primarily of RCTs conducted in the USA, but there are no systematic reviews or syntheses, nor has consideration been given to its applicability (or not) in other country contexts. A number of non-systematic literature reviews have summarised evaluations of the health impacts of lone parent welfare-to-work interventions (Carnochan 2005; Kissane 2007; Waldfoegel 2007). These tend to suggest that there can be adverse impacts on some outcomes, particularly for adolescents (Gennetian 2002a). However, none of these have used systematic review methods to locate, extract, critically appraise and synthesise data from such evaluations. One meta-analysis of welfare-to-work interventions did not conduct a literature search but used an existing database of US and Canadian studies (up to the year 2000) (Greenberg 2005). Another research synthesis did not state what search methods they used (Grogger 2002). Both of these publications included only US and Canadian studies and did not consider adult health outcomes. There is currently no Cochrane Review of the topic. One Cochrane Review assessed interventions that increased income among low-income families (Lucas 2008).

Most of these interventions were welfare-to-work interventions, and many were aimed at lone parents. However, the review did not include studies that did not provide a cash benefit, nor did it include parental health outcomes. Another Cochrane Review focused on the health impacts of in-work tax credits for families, which some consider to be a welfare-to-work intervention. However, in-work tax credits are available to people who are not on welfare, and the associated payments are not time limited, in contrast to the financial incentives provided to participants in this review (Evans 2001).

Given the many pathways by which such interventions might have positive or negative impacts on the health of lone parents and their children, a review of this topic is both timely and relevant to policy. The findings of the review will be useful to policy makers and practitioners in the field of welfare to work. In particular, information about variations in intervention types and health impacts may usefully inform the development of appropriate welfare-to-work interventions.

OBJECTIVES

To assess the effects of WtW interventions on mental and physical health in lone parents and their children living in high-income countries. The secondary objective is to assess the effects of welfare-to-work interventions on employment and income.

METHODS

Criteria for considering studies for this review

Types of studies

Due to the difficulties inherent in evaluating social interventions, it is not common for these to be evaluated using RCT methods. For this reason, systematic reviews of social interventions often include non-randomised studies, such as prospective and retrospective controlled evaluations. Although these are subject to a number of threats to validity, in most cases they constitute the 'best available evidence' (Ogilvie 2005). We identified many non-randomised studies of welfare-to-work interventions. However, we also identified a substantial number of RCTs of welfare-to-work interventions, and as this design is recognised as the most robust method of evaluating interventions, we restricted the review to this study design. We had intended to include quasi-randomised studies (i.e. studies using alternate allocation or allocation by date of birth), but did not identify any studies of this type. Therefore, the studies included in the review are RCTs of welfare-to-work interventions using standard methods of randomisation.

A preliminary search for relevant literature also identified a large number of welfare-to-work intervention studies using qualitative methods, such as face-to-face interviewing and focus groups, to investigate participants' lived experience of interventions. A separate review assesses the qualitative evidence (Campbell 2016).

Types of participants

Lone parents and their dependent children residing in countries defined by the World Bank as 'high-income' (World Bank 2011), with established social welfare systems were the population of interest for the review. In Europe, lone parents are defined as parents living solely with their children or with their children and other adults who are not the parent's partner, spouse, or the other biological parent of the children. However, in the USA the definition is broader, including parents who are cohabiting with, but not married to, either the children's other parent or a new partner. Therefore we included studies on the basis of the group that the interventions explicitly targeted. That is, we included studies if the authors described the intervention as aimed at lone parents and the respondents as lone parents. In addition, study samples often included a proportion of respondents who were married and living with a spouse. We included studies in which most participants were lone parents. We excluded studies with fewer than 60% lone parents that did not report findings by parental status, as it would not be possible to discern whether effects were specific to lone parents. We reported and commented on all relevant demographic information.

Types of interventions

We included welfare-to-work interventions initiated at government level and aimed at adult lone parents exclusively or in combination with couple parents. We provide detailed information about the interventions in [Description of the intervention](#). We included caseload reduction, anti-poverty, labour force attachment and human capital development interventions, consisting of any combination or intensity of the components described previously. We included studies comparing the intervention with usual care (i.e. the standard welfare entitlement and conditions that existed prior to the implementation of the intervention). We also included studies comparing two or more variants of the intervention with usual care. For instance, if a study compared both labour force attachment and human capital development interventions with usual care, we included the study.

We identified a subset of interventions aimed explicitly at teenage parents, which generally included only lone mothers who gave birth at any age up to 20. However, the primary aims of these interventions were to encourage teen parents to complete high school education and to teach parenting skills. Since their primary outcome was not gaining employment, and teenage parents comprise a discrete subpopulation with specific needs, we excluded

interventions aimed at teen parents. A further category of intervention conducted in the USA subsequent to the initial wave of welfare reform evaluated the efficacy of providing additional services to those who had proven hard to place in employment. These 'enhanced services' interventions were often aimed at populations with special needs (e.g. drug addiction, severe health problems) and were provided in addition to the standard welfare-to-work intervention, which forms the experimental condition in the studies we included. We therefore excluded these from the review.

Types of outcome measures

The primary outcomes of interest in this review are health outcomes. We were also interested in economic outcomes as mediators of an intervention's health impacts. Hence, we included studies that reported health outcomes and extracted any available data on economic outcomes. We excluded studies that did not report the health outcomes listed below.

Primary outcomes

We extracted both reported, validated health scales and self-reported health measures.

Table 1 summarises the primary outcomes. We obtained data on parental health assessed by validated measures of parental physical and mental health, such as the Physical Health Scale, the Centre for Epidemiological Studies Depression Scale (CES-D), and the WHO Composite International Diagnostic Interview (CIDI), as well as self-reported physical or mental health. We also extracted data on child health such as parent- or child-reported physical or mental health measures (e.g. the Health Status Scale and the Behavior Problems Index (BPI)). We also included studies reporting only child health outcomes. All included health outcomes are listed below.

Secondary outcomes

We extracted economic outcomes that were reported in addition to the health outcomes outlined above. Economic outcomes included: full- or part-time employment; health insurance coverage, total income; and average earnings. We did not extract economic outcomes where studies reported health outcomes for a subsample but reported economic outcomes only for the main sample.

Although the studies reported many identical outcomes, studies often gave them different names. For ease of comprehension, we standardised these terms.

Search methods for identification of studies

Electronic searches

We searched the following databases in 2011, 2013 and 2016.

- Cochrane Central Register of Controlled Trials (CENTRAL 2016, Issue 4) in the Cochrane Library (searched 5 April 2016).
- MEDLINE Ovid (1948 to 5 April 2016).
- Embase Ovid (1947 to 5 April 2016).
- PsycINFO EBSCO (1806 to 5 April 2016).
- ERIC EBSCO (1964 to 5 April 2016).
- SocINDEX EBSCO (1895 to 5 April 2016).
- CINAHL EBSCO (1982 to 5 April 2016).
- Econlit EBSCO (1969 to 5 April 2016)
- Web of Science ISI (1900 to 5 April 2016).
- Applied Social Sciences Index and Abstracts (ASSIA) Proquest (1987 to 6 April 2016).
- International Bibliography of the Social Sciences (IBSS) ProQuest (1951 to 6 April 2016).
- Social Services Abstracts Proquest (1980 to 6 April 2016).
- Sociological Abstracts Proquest (1952 to 6 April 2016).
- Campbell Library (2000 to 6 April 2016).
- NHS Economic Evaluation Database (NHS EED) CRD York (1994 to 6 April 2016).
- Turning Research into Practice (TRIP) (1997 to 6 April 2016).
- OpenGrey (1997 to 6 April 2016).
- Planex (1984 to 6 April 2016).

We undertook exploratory searches of trials registers but as we did not identify any relevant trials, we did not run full searches. We did not exclude documents on the basis of language or publication date.

Appendix 2 details the full searches. Where available, we used a study design filter to limit searches to randomised trials. For databases without study design filters, we included search terms relating to study design in an effort to increase the specificity of the search. We identified key terms used in welfare policy outside North America to ensure that the search was sensitive to relevant research beyond North America. We examined thesauri in electronic bibliographic databases and used our knowledge of existing relevant publications from outside of North America to inform the search strategy. Due to the volume of literature found, we excluded conference papers and theses.

Searching other resources

We handsearched the bibliographies of both included and highly relevant publications and reviews, and we contacted the authors of included studies in order to locate unpublished or ongoing research. Since independent research organisations and government departments conduct many evaluations of welfare-to-work interventions, we handsearched a large number of relevant websites (see Appendix 3). Websites with search interfaces or searchable databases were searched using terms such as 'lone parent', 'lone parent welfare', 'welfare reform' or 'welfare health'. Otherwise, we screened the relevant publications topic on the website. Where this was possible, we list the number of initial 'hits' from these

websites in [Appendix 3](#). We searched a number of websites belonging to research organisations known to conduct research in this area, and in an effort to also locate research conducted outside of North America, we searched websites carrying research sponsored or conducted by the national governments of OECD countries. We only handsearched publications in English.

Data collection and analysis

Selection of studies

Two authors independently screened abstracts and titles of retrieved publications against the inclusion criteria described above. We retrieved the full text of publications appearing to meet the inclusion criteria and independently assessed them for inclusion. We systematically recorded the reasons for exclusion of publications at the second stage of screening. We documented disagreements and resolved them by consensus, with arbitration by a third member of the team if we could not achieve consensus.

Data extraction and management

Five review authors (MG, KB, MJM, VL and SPM) designed a standardised data extraction form, and two (MG and KB) piloted it before full extraction commenced. One author (KB, MG, MJM, SPM, VL) then extracted data using the data extraction form, and another (MG) checked them; we resolved any discrepancies through discussion, involving a third review author if necessary. We extracted data on the topics described in [Table 2](#).

Many evaluations of welfare-to-work interventions have generated multiple publications, which often report on differing subsamples or include the same impact data reported on a number of occasions. To avoid reporting duplicate data, we tabulated the outcomes reported in each publication, including the relevant sample, the specific measures used and the dates for which they were reported. We used these tables to identify unique outcome data and exclude repeated data. Where different publications reported the same outcome data, we compared values for each data point to check for discrepancies. Where any uncertainty remained we contacted study authors for clarification.

Assessment of risk of bias in included studies

Two authors (MG and VL) independently conducted 'Risk of bias' assessments on primary outcomes using the Cochrane 'Risk of bias' tool ([Higgins 2011a](#)), adding several domains from the Cochrane Effective Practice and Organisation of Care (EPOC) Group's risk of bias tool (see [Appendix 4](#)). We assessed baseline characteristics, baseline outcome measurements and contamination in addition to the standard Cochrane 'Risk of bias' items. In line with the EPOC tool, we did not assess blinding of participants and personnel, as it is typically not possible to blind participants or providers to social

interventions ([Oakley 2003](#)). We assessed two domains - blinding of outcome assessors and baseline outcome measures - at the level of individual outcomes. We assessed incomplete outcome data at both study and outcome level, since missing outcome data can occur at the level of the study (unit non-response) or at the level of the outcome (item non-response). The review authors conducting the assessment resolved discrepancies through discussion and referred to a third author (HT) for resolution if necessary.

Measures of treatment effect

The studies reported outcomes as both continuous and dichotomous variables. We calculated risk ratios (RR) for dichotomous outcomes and standardised mean differences (SMD) for continuous outcomes. We reported standardised effect sizes where an outcome was only reported by a single study in order to facilitate comparison of effect magnitude across outcomes measuring the same underlying construct. In calculating RRs, we defined the 'event' in the manner in which the outcome was reported. If the prevalence of a 'bad' outcome (such as risk of depression) was reported, we defined this as the event. Similarly, if studies reported the proportion of the sample experiencing a good outcome (such as being in good or excellent health), we defined this as the event. Where the good outcome represented the event, we noted it in the [Summary of findings for the main comparison](#) and [Summary of findings 2](#). We grouped outcomes according to type (e.g. parental physical health, parental mental health). Where sufficient data were available, we used Review Manager 5 ([Review Manager 2014](#)) to calculate effect sizes.

Unit of analysis issues

Studies implemented and evaluated the included interventions at the level of the individual. Authors generally reported outcomes for the adult participant (i.e. the lone parent) and for one focal child. All but three studies collected data from only one focal child per family. Two of these reported adjusting standard errors to take account of shared variance between siblings. We contacted the authors of the third study to confirm that they had taken appropriate measures, and they reported having applied the Huber-White correction in STATA to account for shared variance.

Combining groups and outcomes

A number of studies included more than one intervention group and did not report aggregate data for these. In addition, a number of studies reported data for subgroups of recipients or by child age subgroups. Where studies included more than one intervention group but only one control group, we combined experimental groups for the primary analysis ([Higgins 2011b](#)), ensuring that control group data were entered only once to avoid duplication. Where studies included subgroups defined by location or respondent characteristics, we combined experimental subgroups and,

separately, control subgroups as appropriate. In the case of dichotomous outcomes, this was achieved simply by summing the appropriate statistics (Higgins 2011b). For continuous outcomes, we entered group means, standard deviations and Ns into the 'Calculate based on several groups' function in Review Manager 5 (Review Manager 2014). Where no measure of variance was available, outcome data were reported narratively and included as 'other data' in the [Data and analyses](#) section. In these cases, studies only reported significance levels at the 0.01, 0.05 or 0.1 levels. We reported these in the text and in the 'other data' tables. We derived a number of outcomes from reported data where appropriate. For instance, if number of hours worked per week was reported as a categorical variable with five categories, we summed those below 30 hours to derive a value for part-time employment and those at or above 30 hours to derive a value for full-time employment. These are also reported in meta-analysis footnotes.

Dealing with missing data

Few studies reported measures of variance that would permit the calculation of effect sizes and inclusion of outcomes in meta-analyses. Two studies reported P values for all outcomes, and two further studies reported P values for some outcomes. We contacted the authors of all other studies to request measures of variance and received them from MDRC (formerly Manpower Demonstration Research Corporation) for all studies conducted by that organisation. The author of one study provided pooled standard deviations, and the Social Research and Demonstration Corporation (SRDC) provided standard errors for two further studies. We were unable to obtain measures of variance for the remaining three studies.

We used standard errors and P values to calculate standard deviations in the Cochrane standard deviation calculator tool. Where measures of variance were not available, we reported effects narratively in the text and in 'other data' tables in [Data and analyses](#). Where available, we extracted data on attrition and item non-response from publications and included them in the 'Risk of bias' assessments.

Assessment of heterogeneity

Included studies were relatively homogeneous in terms of design, population and outcome measures, although the interventions varied in terms of approach and components provided. We performed χ^2 tests and used the I^2 statistic to test for statistical heterogeneity. Where heterogeneity was moderate to high ($I^2 > 60\%$; Deeks 2011), we performed post hoc sensitivity analyses to investigate the effect of excluding obvious outliers, and we formulated exploratory hypotheses for the causes of such heterogeneity. As there are multiple sources of possible variation in complex social interventions such as these, we used random-effects models for all meta-analyses (Deeks 2011).

Assessment of reporting biases

As there were fewer than 10 studies available for any category of outcome included in a meta-analysis, it was not possible to investigate reporting bias using funnel plots or Egger's test. We used the Cochrane 'Risk of bias' tool to investigate selective outcome reporting and incomplete outcome data (Higgins 2011a).

Data synthesis

We collected data at all available time points and classified them for analysis purposes in terms of the time elapsed between randomisation and data collection. We created three categories: time point 1 (T1), at 12 to 24 months since randomisation; time point 2 (T2), at 25 to 48 months; and time point 3 (T3), at 49 to 72 months. Although this division differs slightly from the intervals stated in the protocol, we found that after collecting data and establishing the actual distribution of studies and follow-up times, these intervals provided the optimal spread of follow-up times and number of studies within each interval. One study reported partial data at 96 months. We did not include these in the main analysis but summarised them narratively and reported them as 'other data' in [Data and analyses](#). Two later publications analysed linked mortality data from two other studies at 15 and 17 to 19 years. We report these narratively in the text. [Table 3](#) shows the reported follow-ups and time points.

Many reported outcomes were sufficiently homogeneous to be included in meta-analyses. In addition, we were able to obtain many of the statistics required for meta-analysis from authors. We were therefore able to meta-analyse many outcomes, and where this was not possible, to calculate effect sizes for individual outcomes. In a few cases it was not possible to calculate an effect size. Where no measure of variance was available, we entered data into Review Manager 5 (Review Manager 2014) as 'other data'. If there were sufficient studies that reported standard deviations for an identical continuous outcome, we imputed them for outcomes with no measure of variance. In such cases, we conducted sensitivity analyses to investigate the effects of using different methods to impute the standard deviation (e.g. the average of all reported standard deviations compared to the highest reported value) (Higgins 2011b).

We grouped outcomes into child and adult outcomes and then by type of outcome, that is, we synthesised and analysed adult physical health and adult mental health separately. Employing the approach to summary assessment of risk of bias suggested in [Higgins 2011a](#), we judged all studies to be at high risk of bias; therefore for each time point and category, we entered into the primary analyses all studies for which the necessary data were available.

We used standard mean differences to calculate combined effect sizes for continuous outcomes using Review Manager 5 (Review Manager 2014). This permitted the inclusion in meta-analyses of continuous outcomes measuring the same construct, such as parental depression. Where outcomes were not sufficiently similar

to be included in meta-analyses, we calculated individual effect sizes and presented them in forest plots. Where data were not available for individual outcomes, we reported these in the text within the appropriate outcome category and also presented them in 'other data' tables.

Subgroup analysis and investigation of heterogeneity

We intended to investigate between-study heterogeneity using subgroup analyses. In particular, we planned to conduct subgroup analyses of studies grouped in terms of the typology of interventions identified in the early stages of the review (i.e. caseload reduction/anti-poverty and labour force attachment/human capital development; see [Description of the intervention](#) for a more detailed description of these). However, this was not possible since the number of studies in each category within each time point was insufficient to permit further statistical analysis. In addition, we found that interventions defined by approach or ethos were more similar in practice than expected. We were also unable to conduct other planned subgroup analyses because they lacked either data or sufficient studies; these included studies that differed according to economic contexts, implementation, level of bias, age of child, level of participant disadvantage, ethnicity and whether or not participants became employed. The largest source of variation in the interventions was in terms of the components provided. It was not possible to investigate the effects of this variation systematically, as there were again insufficient studies providing similar combinations of components. We were therefore limited to our planned primary analysis including all studies at each time point. However, where there was evidence of high heterogeneity (> 60%) we conducted post hoc sensitivity analyses to investigate the effect of excluding obvious outliers and suggested possible hypotheses relating to intervention characteristics that might explain such differences. While this is an acceptable method of investigating heterogeneity, since the analyses are not pre-specified it does not produce reliable results and can only be seen as a means of generating hypotheses ([Deeks 2011](#)). Where heterogeneity was high and we could identify a plausible hypothesis, we presented impacts from outlying studies separately and discussed the potential role of the identified characteristic.

Sensitivity analysis

As described above, sensitivity analysis was used for post hoc investigation of heterogeneity.

Quality and applicability of evidence

We assessed the quality of the evidence for each outcome using the GRADE approach where an effect estimate was available, either from a meta-analysis or a single study ([Schünemann 2011a](#)). After importing all analyses from Review Manager 5 ([Review Manager 2014](#)) to [GRADEpro GDT 2014](#), we assessed each outcome for

threats to quality from risk of bias, inconsistency, indirectness, imprecision and publication bias. Where it was not possible to calculate an effect estimate, we judged the quality of the evidence to be 'unclear'.

Each outcome domain included outcomes measuring the same construct in different ways. For instance, studies reported parental mental health as both a continuous and a dichotomous variable. Hence, we could not include all of the outcomes in meta-analysis, so each domain included some outcomes that we combined in a meta-analysis and some outcomes for which we could only calculate a single study effect estimate. We graded evidence from each of these separately, but analyses within each domain could vary in quality, hampering the GRADE objective of reaching a judgement on the overall quality of the evidence for any single outcome domain.

In order to facilitate an overall quality assessment for each domain, we developed a domain-level summary assessment. This was based on the assessment of quality for the analyses including the largest sample size. For instance, at T1 five studies reported a measure of parental mental health. We could include data from two of these studies in a meta-analysis and calculated separate effect sizes for the remaining three outcomes. The sample size in the meta-analysis was 3352, and the evidence was of moderate quality. The combined sample size for the remaining three studies was 767. The evidence from two of the single studies was low quality, and from the remaining study the evidence was very low quality. Since the sample size of the moderate-quality evidence in this domain was much larger, we assigned the domain an overall judgement of moderate quality. We included the analyses on which the domain level judgement was based in [Summary of findings for the main comparison](#) and [Summary of findings 2](#). Where more than one analysis in a given domain contributed to the domain level assessment, we included the analysis with the largest sample size in the 'Summary of findings' tables.

If we assessed studies included in a meta-analysis as being at high risk of bias, we downgraded the evidence once. Where a study was deemed to be at very high risk of bias, we downgraded the evidence twice (for instance where severe or systematic attrition was present). The only exception to this was where the study contributed 10% or less of the overall weight of a meta-analysis, in which case we did not downgrade for very high risk of bias. We downgraded once for inconsistency if I^2 was greater than 50%, effects were in opposing directions, and we could not identify a plausible explanation for heterogeneity. However, if I^2 was above 50% but all effects were in the same direction, or if we could identify a plausible explanatory hypothesis, we did not downgrade for inconsistency ([Schünemann 2011b](#)). We did not downgrade for risk of bias caused by contamination because since it leads to underestimation of impacts, it is deemed to be of less concern than risk of bias in domains likely to cause overestimated impacts ([Higgins 2011a](#)). To assess indirectness, we considered the extent to which the population and setting of the included studies was

similar to those of interest for the review, and whether any outcome measures used were indirect or proxy measures.

When assessing imprecision, we downgraded continuous outcomes (reported as SMDs) once if the confidence intervals included 0.5 standard deviations on either side of the point estimate and crossed the line of no effect. For dichotomous outcomes, we downgraded once if the confidence intervals included a 25% reduction or increase in the RR (on either side of the point estimate) and also crossed the line of no effect. If the confidence interval crossed the line of no effect but did not include appreciable benefit or harm, according to the above criteria, we did not downgrade for imprecision. However, where the CI crossed null and the effect was very small, we noted that this was unlikely to be an important effect (Ryan 2016). Where there was reason to suspect publication bias, we downgraded once on this criterion. We assigned all health outcomes a 'critical' rating and all economic outcomes an 'important' rating. We present GRADE assessments for the health outcomes used for the domain level GRADE assessment in the [Summary of findings for the main comparison](#) and [Summary of findings 2](#). GRADE guidance stipulates that 'Summary of findings' tables should be ordered by problem or population, then by intervention type or comparison, then by outcome (GRADEpro GDT 2014). In this case, there is only one intervention, but the studies report impacts across a wide range of follow-up times. Our synthesis is structured in terms of intervention, then population, then time point (i.e. short, medium and long-term follow-up), then outcome, so we have ordered the 'Summary of findings' tables in the same way.

In reaching conclusions regarding the applicability of evidence, we considered variations in context and culture. We extracted data on implementation and on national and local intervention contexts. We were unable to statistically investigate the role of such factors due to small numbers of studies sharing given characteristics. In addition, we considered the broader context in which most interventions were implemented, that is the USA, during a

period of economic expansion, and in a country lacking universal healthcare coverage. We discuss these issues in the section [Overall completeness and applicability of evidence](#).

RESULTS

Description of studies

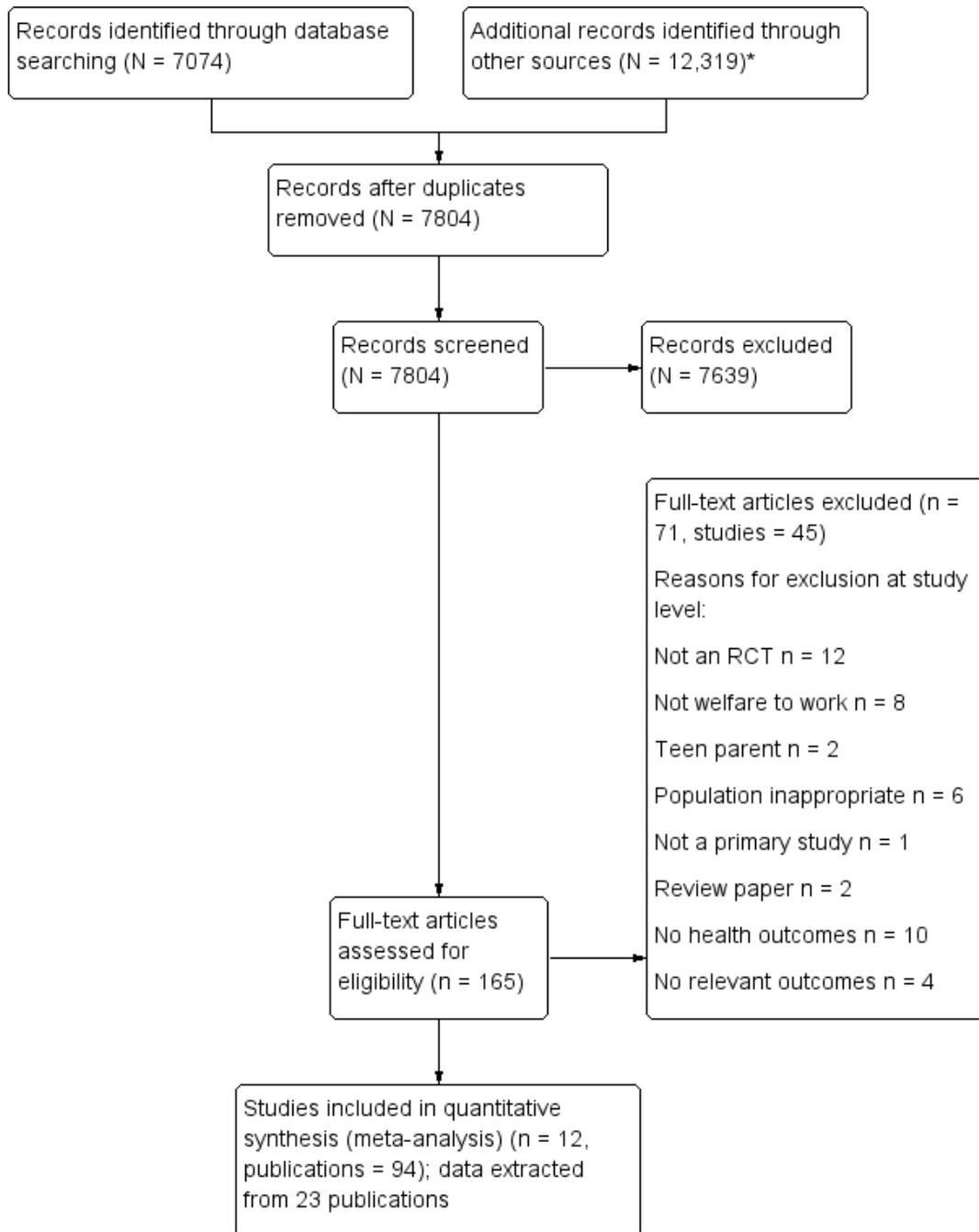
See: [Characteristics of included studies](#); [Characteristics of excluded studies](#).

Results of the search

We conducted database searches in 2011, 2013 and 2016. These yielded a total of 7074 references. We identified a further 12,319 references through an extensive stage of contacting authors, searching websites with searchable interfaces, and handsearching bibliographies (see [Appendix 3](#)). Because it was not possible to download the website search results to [Endnote 2016](#), we screened the titles for relevance and identified 1609 potentially eligible records, which we added to the results of the database searches in [Endnote 2016](#) for a total of 8683 records.

We removed 879 duplicates from the combined results of the handsearches and the database searches. This left a total of 7804 references, of which we excluded 7639 on the basis of title or abstract. We assessed 165 full-text articles for eligibility, excluding 71 records reporting on 45 studies: 12 were not RCTs, 10 reported no health outcomes, 8 were not welfare to work, 8 were aimed at teen parents (2 studies) or an otherwise inappropriate population (6 studies), 4 reported health outcomes that were not relevant to this review, 2 were review papers, and 1 was not a primary study. [Figure 1](#) details the progress of citations through the screening process. After full-text screening, we included 12 studies with 94 associated publications.

Figure 1. Study flow diagram.*An initial stage of screening reduced records from all other sources to 1609. The remaining records were then de-duplicated against the Endnote library containing the electronic search results. Note this figure does not include publications found on websites without searchable databases.



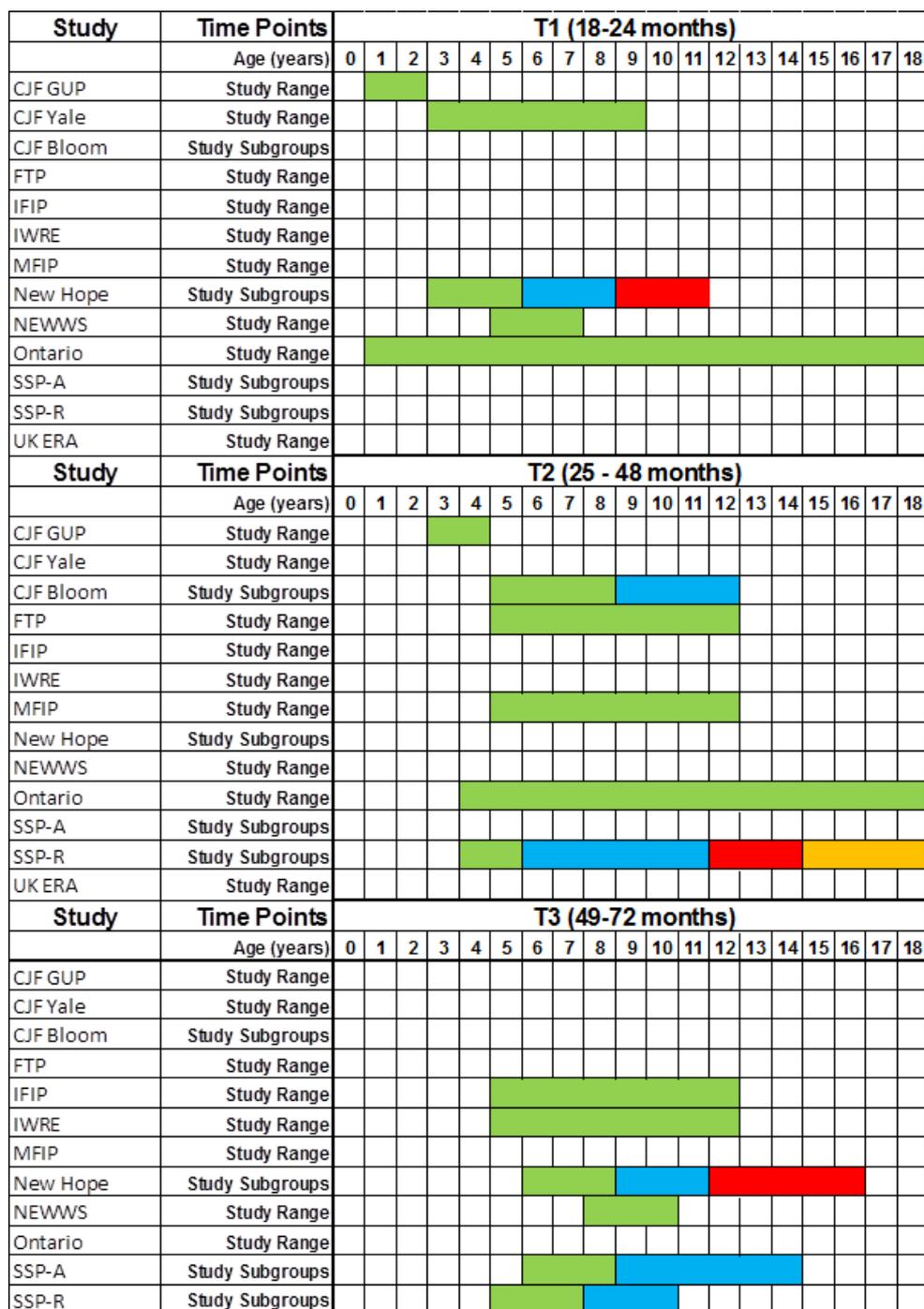
Of the 94 identified publications associated with the 12 included studies, many did not report outcomes relevant to this review. Thirty-four of these publications met all of our inclusion criteria, including reporting relevant outcomes. In some cases authors reported the same outcomes in two or more publications. To prevent double counting, we tabulated all reported outcomes in each publication and cross-checked to ensure that each instance of a given outcome was extracted only once. Where discrepancies in data were identified, we contacted study authors to confirm the correct values. Following this process, we identified 23 publications reporting unique outcome data for the 12 included studies. We reference these 23 publications in the [Included studies](#) section. We include all other publications in the [Additional references](#) section. Nine of the included records came from the database searches, and we identified the remaining fourteen by handsearching only.

Included studies

Study characteristics

Twelve studies met all of the inclusion criteria for this review. Three independent groups evaluated one intervention, Connecticut Jobs First. The Manpower Demonstration Research Corporation (now known as MDRC) conducted the main evaluation ([CJF 2002](#)). However, two further groups of researchers analysed additional independent samples from the same study: Yale University ([CJF Yale 2001](#)) and the Growing Up in Poverty project at the University of California at Berkeley ([CJF GUP 2000](#)). They selected samples on the basis of the focal child's age that were mutually exclusive, as shown in [Figure 2](#). For ease of description throughout the review, we allocated a separate study ID for each ([CJF Yale 2001](#) and [CJF GUP 2000](#), respectively) and created separate 'Characteristics of studies' tables.

Figure 2. Age of children at time of data collection by time point



Characteristics of evaluation teams

North American research organisations led or were closely involved in most included studies. MDRC was directly responsible for the evaluation of Connecticut Jobs First ([CJF 2002](#)), New Hope ([New Hope 1999](#)), the National Evaluation of Welfare to Work Strategies ([NEEWS 2001](#)), the Minnesota Family Investment Program ([MFIP 2000](#)), California's Greater Avenues for Independence ([California GAIN 1994](#)), and the Family Transition Program ([FTP 2000](#)). MDRC also collaborated closely with its sister organisation, the Social Research and Demonstration Corporation (SRDC), on the Canadian Self-Sufficiency Program ([SSP Applicants 2003](#); [SSP Recipients 2002](#)), and with the UK Department for Work and Pensions (DWP) on the UK Employment Retention and Advancement demonstration ([UK ERA 2011](#)). Mathematica Policy Research evaluated the Iowa Family Investment Program ([IFIP 2002](#)), and Abt Associates conducted the Indiana Welfare Reform Evaluation ([IWRE 2002](#)). An academic team was responsible for only one study, conducted in Ontario ([Ontario 2001](#)). In most cases, state-level government departments initiated the studies, often in conjunction with federal government departments such as the US Department of Health and Human Services or the Canadian Department of Human Resources and Skills Development. The UK Department for Work and Pensions launched [UK ERA 2011](#), and the regional level government in Ontario initiated [Ontario 2001](#). Only [New Hope 1999](#) differed in this respect, as it was initiated by a community organisation with a very clear aim of ensuring participants were better off in work.

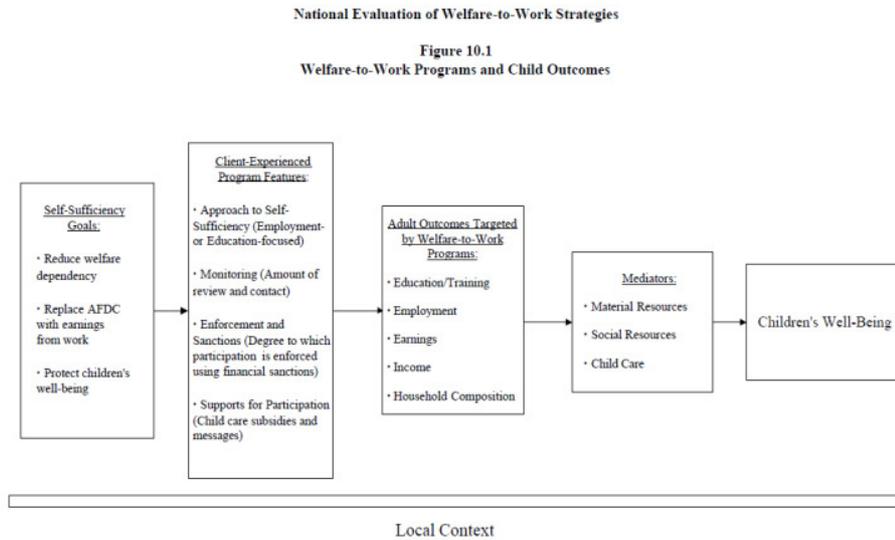
Objectives of interventions

In all cases, the primary objective of the interventions was to promote labour market participation and increase economic self-sufficiency. Many interventions had supplementary objectives of either reducing welfare rolls or making work pay. We discuss these in further detail below.

Theory of change

Eleven of the 12 included studies included a logic model or a textual description of hypothesised pathways linking the intervention to child outcomes. Only [California GAIN 1994](#) did not report a theory of change in the publication extracted for this review. Studies hypothesised that programme messages regarding employment and training, along with sanctions, case management and other intervention components, might lead to changes in direct, targeted outcomes such as income and/or employment. These might influence intermediate outcomes such as material resources, parental stress and mental health, parenting, and use of formal or informal child care. Each of these may affect children's outcomes either through direct material changes or via changes in parental stress levels. Increased attendance at informal or formal child care could lead to increased exposure to educational experiences and to infectious illnesses. At each stage in the model, from targeted outcomes to effects on children, there is the potential for effects to be either positive or negative. There may also be positive effects on some outcomes and negative effects for others. Effects may also vary depending on level of exposure or interactions between intervention components. An example of a logic model used by study authors is provided in [Figure 3](#).

Figure 3. Example of study logic model from NEWWS 2001 Copyright © 2001 MDRC: reproduced with permission.



Sample size

Many of the included studies were large and complex. Total sample sizes ranged from 765 in [Ontario 2001](#) to 66,400 in [IWRE 2002](#). However, in most larger studies, only administrative data were collected for participants, with a subsample (usually defined by age of the focal child) of these surveyed to assess health outcomes. Where this was the case, we extracted economic data only for the relevant subsample. All sample sizes are provided in [Characteristics of included studies](#).

Study design

All included studies were randomised controlled trials. Randomisation was at the level of the individual.

Setting

Of the 12 included studies, 8 took place in the USA ([CJF 2002](#); [California GAIN 1994](#); [FTP 2000](#); [IFIP 2002](#); [IWRE 2002](#); [MFIP 2000](#); [New Hope 1999](#); [NEWWS 2001](#)), 3 in Canada ([Ontario 2001](#); [SSP Applicants 2003](#); [SSP Recipients 2002](#)) and 1 in the UK ([UK ERA 2011](#)). Most evaluations began between 1991 and 1996. [California GAIN 1994](#) began in 1986 and [UK ERA 2011](#) in 2003. [SSP Applicants 2003](#) and [SSP Recipients 2002](#) reported exclusively using all staff and premises for delivery

of the intervention. [FTP 2000](#) reported assigning each client a case manager and an employment and training worker who worked on premises kept apart from the control group. [New Hope 1999](#) reported that 'project representatives' delivered the intervention but did not specify the place of delivery. [CJF 2002](#), [NEWWS 2001](#) and [Ontario 2001](#) reported using standard welfare caseworkers to deliver the intervention. [California GAIN 1994](#), [IFIP 2002](#) and [MFIP 2000](#) described staff as GAIN, IFIP and MFIP caseworkers respectively, but it was unclear whether these were standard personnel or recruited specifically to deliver the intervention. [UK ERA 2011](#) employed specialised Advancement Support Advisers to assist participants post-employment.

Political and economic context

All but one of the included studies took place during periods of increasing public and political opposition to welfare payments as well as reductions in the value of and entitlements to benefits. The economic contexts in which the studies were conducted varied, with eight studies reporting good economic conditions ([CJF 2002](#); [IFIP 2002](#); [MFIP 2000](#); [New Hope 1999](#); [NEWWS 2001](#); [SSP Applicants 2003](#); [SSP Recipients 2002](#); [UK ERA 2011](#)), two studies reporting a period of recession or economic restraint ([California GAIN 1994](#); [Ontario 2001](#)), and two reporting no information

on economic context (FTP 2000; IWRE 2002).

Participants

Participants were lone mothers and their children. Some studies included small percentages of lone fathers but used feminine terminology throughout due to the overwhelming majority of participants being women. Adult ages ranged from 18 to 54, and child ages ranged from 18 months to 18 years. Since the interventions were aimed at lone parents in receipt of welfare, participants in all studies had low socioeconomic status. All studies included both existing welfare recipients and new applicants. Most of the study samples comprised unemployed lone parents, as identified by the study authors. However, in many studies a proportion of the sample were married and living with their spouse at randomisation (range from 0% to 33.9%; 12% or under in 8 of 12 studies. California GAIN 1994, CJF GUP 2000, SSP Applicants 2003 and SSP Recipients 2002 did not report data on the current family structure of respondents), and a proportion of the sample were also working but still receiving welfare at randomisation or in the year prior to the study (range from 1.7% to 69%). We present full population characteristics in the Characteristics of included studies tables.

Study subgroups

A number of studies collected or reported data for subgroups of recipients, defined by intervention status (in multi-arm studies), location, child age and welfare receipt status. These are described below and summarised in Table 4. We describe the manner in which these were included in meta-analyses in Data synthesis.

MFIP 2000 was particularly complex, having a total of 10 intervention subgroups defined by intervention type, location and recipient status. Two interventions were included in MFIP 2000: the full welfare-to-work intervention (MFIP) and MFIP 2000 Incentives Only (MFIP-IO), which provided only financial incentives to those who gained employment but did not involve any compulsion. MFIP-IO was delivered only to urban respondents. Thus, the 10 groups in MFIP 2000 comprised: long-term urban MFIP; long-term urban MFIP-IO; long-term urban control; recent urban MFIP; recent urban MFIP-IO; recent urban control; long-term MFIP rural; long-term rural control; recent rural MFIP and recent rural control. We combined experimental and control groups as appropriate. A number of outcomes were not reported for every subgroup. Where this was the case, we appended the relevant forest plot with an explanatory footnote.

NEWWS 2001 was also a complex study, with two co-interventions delivered at three sites. One intervention group received a labour force attachment (LFA) intervention, intended to place participants in employment of any kind as rapidly as possible, while the other received a human capital development (HCD) intervention, aimed at increasing respondents' employability by

enhancing their skills. Thus there were a total of six groups within the NEWWS 2001 study. However, one group (Riverside HCD) differed systematically from the rest of the sample, since the HCD intervention was only available to respondents who lacked basic skills. We therefore excluded this group from the meta-analyses.

For each of the studies listed in Table 4, not all outcomes were reported for each subgroup, so samples included in meta-analyses may vary by outcome within studies. These instances are signalled in the footnotes of each meta-analysis.

Child age ranges and subgroups

All studies collected data on differing age groups of children, with ages ranging from 18 months to 18 years. Figure 2 shows the age groups and subgroups reported by each study at each time point. In some cases, trials reported child outcomes only by subgroups. Data synthesis describes the manner in which these were included in meta-analyses.

At T1, reported age ranges were 18 months to 3 years (CJF GUP 2000), 3 to 10 years (CJF Yale 2001), 5 to 7 years (NEWWS 2001), and 3 to 12 years (New Hope 1999). Ontario 2001 included children aged 2 to 18 years. At T2, SSP Recipients 2002 reported data on children ranging from 3 to 18 years, and CJF 2002, FTP 2000 and MFIP 2000 reported data on children aged 5 to 12 years. Ontario 2001 included children aged 4 to 18, and CJF GUP 2000, children aged 3 to 5 years. At T3, children in NEWWS 2001 were aged 8 to 10 years, and children in New Hope 1999 were aged 6 to 16. IFIP 2002 and IWRE 2002 reported data on children ranging from 5 to 12 years, and SSP Applicants 2003 included children aged 6 to 14 years. SSP Recipients 2002 reported data on children aged 5.5 to 9.5 years.

Intervention characteristics

Ethics

Except for New Hope 1999, all interventions implemented in the USA were compulsory, and investigators did not seek any form of consent for participation in the study (CJF 2002; California GAIN 1994; FTP 2000; IFIP 2002; IWRE 2002; MFIP 2000; NEWWS 2001). In Canada all interventions were voluntary (Ontario 2001; SSP Applicants 2003; SSP Recipients 2002), as was UK ERA 2011. All of the voluntary studies described a process of obtaining informed consent from participants prior to randomisation.

Length of follow-up

The data we report were collected between 18 months and 18 years after randomisation. Four studies reported relevant health outcomes at two follow-up time points (CJF 2002; NEWWS 2001; Ontario 2001; SSP Recipients 2002). New Hope 1999 reported outcomes at three follow-ups. An independent team of researchers

linked data from two studies to mortality data at 15 to 18 years (CJF 2002; FTP 2000). Table 3 shows all follow-up times we report. We describe the manner in which we analyse the follow-ups in Data synthesis.

Exposure to the intervention

At T1 and T2, all data reported were from samples that were still exposed to the intervention. In CJF 2002 and FTP 2000, a proportion of the sample would have reached lifetime limits for welfare receipt and ceased to receive earnings disregards. They would still have been exposed to sanctions, training and case management. At T3, a number of interventions had ended, and sample members were no longer exposed to intervention conditions. These included IFIP 2002; New Hope 1999; SSP Applicants 2003; SSP Recipients 2002 and UK ERA 2011. Interventions were ongoing in IWRE 2002 and NEWWS 2001. NEWWS 2001 had not included financial support at any time, and the time-limited earnings disregards provided by IWRE 2002 would no longer have been available to the intervention group. There was an expectation that impacts would continue after the interventions had ended because early labour market entry would allow respondents to accrue labour market advantage in terms of job quality and earnings, and

that this could contribute to a better environment for children, with lasting health benefits.

Ethos and approach

Although the overarching aim of all included interventions was to promote employment among lone parents in receipt of welfare benefits, the motivation or ethos underlying this objective differed, as did the approach to achieving it. We describe these differences in detail in Description of the intervention. Briefly, interventions had one of the following motivations.

1. Caseload reduction (CR) interventions attempted to move recipients off welfare as quickly as possible, regardless of job quality or in-work income.

2. Anti-poverty (AP) interventions attempted to increase the incomes of former recipients when in employment.

Two approaches were adopted in pursuit of these aims.

1. Labour force attachment (LFA) emphasised rapid integration in the labour market.

2. Human capital development (HCD) aimed to promote skills development in order to secure better quality employment. Either LFA or HCD approaches could be adopted by CR or AP interventions. Figure 4 provides information about all studies' ethos and approach.

Figure 4.

Intervention	Int ethos	Int approach	Mandatory employment/work-related activity	Earnings supps	Earnings disregards	Child-care subs	Work-fare	Lif-time limit	Sanctions	Education/training	Health ins	Case mgmt	Total
California GAIN	CR	Varied	✓	●	●	✓	✓	●	✓	✓	●	Varied	5
CJF	AP	LFA	✓	●	✓	✓	✓	✓	✓	✓	✓	Low	8
FTP	AP	HCD	✓	●	✓	✓	✓	✓	✓	✓	NR	High	7
IFIP	AP	LFA	✓	●	✓	✓	✓	●	✓	✓	●	NR	6
IWRE	CR	LFA	✓	●	✓	✓	●	✓	✓	✓	✓	NR	7
MFIP	AP	LFA	✓	●	✓	✓	●	●	✓	✓	●	NR	5
MFIP Incentives Only	AP	NA	●	●	✓	✓	●	●	●	●	●	NR	3
New Hope	AP	LFA	●	✓	●	✓	●	●	●	●	✓	High	4
NEWWS HCD	CR	HCD	✓	●	●	●	✓	●	✓	✓	●	High	4
NEWWS LFA	CR	LFA	✓	●	●	●	✓	●	✓	✓	●	High	4
Ontario	NA	NA	●	●	●	✓+	●	●	●	✓	NA	High	2
SSP-A	AP	LFA	●	✓	●	●	●	●	●	●	●	Low	2
SSP-R	AP	LFA	●	✓	●	●	●	●	●	●	●	Low	2
UK ERA	AP	HCD	●	✓	●	●	●	●	●	✓	NA	High	3
Total	8 AP/3 CR	3 HCD/8 LFA	7	4	5	8	5	3	7	9	3	5 high/3 low	

Eight studies meeting the inclusion criteria were AP interventions (CJF 2002; FTP 2000; IFIP 2002; MFIP 2000; New Hope 1999; SSP Applicants 2003; SSP Recipients 2002; UK ERA 2011). Three studies evaluated CR interventions (California GAIN 1994; IWRE 2002; NEWWS 2001). Four studies evaluated HCD interventions (FTP 2000; California GAIN 1994; NEWWS 2001; UK ERA 2011), and eight evaluated LFA interventions (CJF 2002; IFIP 2002; IWRE 2002; MFIP 2000; New Hope 1999; NEWWS 2001; SSP Applicants 2003; SSP Recipients 2002; NEWWS 2001 had both an LFA arm and an HCD arm). Ontario 2001 did not fall into any of these categories. There was no apparent relationship within the included studies between aim and approach - AP and CR interventions adopted both LFA and HCD approaches, although interventions that adopted an AP ethos alongside an LFA approach predominated, with six of the included studies adopting this combination (CJF 2002; IFIP 2002; MFIP 2000; New Hope 1999; SSP Applicants 2003; SSP Recipients 2002). However, in practice this typology did not prove as useful as anticipated. Even where study authors stated that the intervention explicitly adopted one of the above approaches, in practice there often seemed to

be little variation between interventions of differing types. For instance, a number of LFA interventions offered training, and this did not necessarily differ in level or scope from that offered by HCD interventions.

Implementation

Study authors often reported that implementation of interventions varied widely within studies. This variation occurred both at the level of intervention ethos and approach, and at the level of individual components, as might be expected in complex interventions with multiple components delivered in different sites and settings.

Intervention components

We identified 10 individual components in the interventions (see Figure 4). Except those in UK ERA 2011, control group respondents were also subject to many of these components, such as employment requirements and earnings disregards, to varying degrees. Thus, we describe only those intervention components that

represent an incentive, sanction or service over and above what the control group received.

Three studies tested variants of the main intervention with two or more intervention arms. [NEWS 2001](#) delivered parallel LFA and HCD interventions in three different sites. [Ontario 2001](#) tested the impact of five different approaches to delivering support to single parents. Two groups within the study received employment training and are included in the review. One of these groups also received child care and support from health visitors. [MFIP 2000](#) included an incentive-only arm (MFIP-IO) whose recipients were not subject to mandatory work requirements but received earning supplements and other benefits if they chose to return to work. The only participants who received additional programme benefits such as earnings supplements, childcare subsidies and health insurance were working or engaged in work-related activity for a specified number of hours per week, apart from [Ontario 2001](#), which provided child care regardless of employment status. Intervention components were as follows.

1. Mandatory employment or employment-related activity

Seven interventions featured compulsory job searching, training, work placements or other employment-related activity ([California GAIN 1994](#); [CJF 2002](#); [FTP 2000](#); [IFIP 2002](#); [IWRE 2002](#); [MFIP 2000](#); [NEWS 2001](#)). Respondents in the intervention group were required to actively seek employment or participate in employment-related activity for a specified number of hours per week. Failure to do so could result in financial sanctions involving partial or total cessation of welfare benefits for a specified period of time. In [MFIP 2000](#), respondents in the recent applicant group and in the MFIP-IO arm of the intervention were not required to be available for work; employment requirements applied only to those in the long-term group who had been out of work for 24 months of the previous 36.

2. Earnings supplements

Participants in four studies received top-ups to earned income when they worked for a specified number of hours per week or over a given period ([New Hope 1999](#); [SSP Applicants 2003](#); [SSP Recipients 2002](#) (minimum 30 hours work per week, tapering above a certain level of earnings); [UK ERA 2011](#) (up to six payments of GBP 400 for each period when participants worked 30 or more hours per week for 13 out of 17 weeks)). Supplements were limited to a period of three years. While supplements were being paid, respondents' total income could increase even if their earned income was low.

3. Earnings disregards

Five interventions disregarded a proportion of earned income when calculating welfare entitlement ([CJF 2002](#); [FTP 2000](#); [IFIP 2002](#); [IWRE 2002](#); [MFIP 2000](#)). Methods of calculating and

levels of generosity varied across studies. Where earned income was disregarded, respondents could claim welfare while earning at much higher levels than previously. However, in [CJF 2002](#), [FTP 2000](#) and [IWRE 2002](#), these periods while working and claiming welfare counted towards the respondent's lifetime limit on welfare receipt. While respondents received earnings disregards, total welfare receipt and numbers on welfare were higher. As with supplements, disregards could increase total income even if earned income was low.

4. Childcare subsidies

All but four interventions provided childcare subsidies ([NEWS 2001](#); [SSP Applicants 2003](#); [SSP Recipients 2002](#); [UK ERA 2011](#)). Financial contributions toward the cost of child care were made either directly to childcare providers or to parents for a period of one to two years following uptake of employment. [Ontario 2001](#) provided a childcare programme to one arm of the intervention only.

5. Workfare

Five studies featured compulsory work placements, or 'workfare', in order to qualify for benefits ([California GAIN 1994](#); [CJF 2002](#); [FTP 2000](#); [IFIP 2002](#); [NEWS 2001](#)). This differs from requirements to work or to take steps towards work (component 1) in that participants were assigned a specific placement (in the public, private or voluntary sector), which they had to attend for a set number of hours per week in order to continue receiving benefits, and they were not paid at a normal market rate. [New Hope 1999](#) assigned participants who were unsuccessful in finding work to community service jobs, but these were seen as proper employment and paid at the market rate.

6. Lifetime limits

The package of welfare reforms passed in the USA in 1996 included a federal lifetime limit of 60 months of welfare receipt, with individual states retaining the freedom to apply shorter limits. [CJF 2002](#), [FTP 2000](#), and [IWRE 2002](#) included lifetime limits on welfare receipt. [IFIP 2002](#) did not include time limits over and above those applying to the whole sample under a federal waiver granted in 1993. Studies conducted in the UK and Canada did not involve time limits on benefit receipt, but eligibility for supplements or other programme benefits was time limited ([Ontario 2001](#); [SSP Applicants 2003](#); [SSP Recipients 2002](#); [UK ERA 2011](#)). [California GAIN 1994](#) predated the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996, and both [MFIP 2000](#) and [New Hope 1999](#) were designed with the expectation that there would be no time limits on welfare receipt. [MFIP 2000](#) was able to maintain this under the intervention conditions, but [New Hope 1999](#) participants were not held back from

lifetime limits after the implementation of Wisconsin Works in 1997.

The [CJF 2002](#) time limit was 21 months. [FTP 2000](#) recipients were limited to 24 months of cash assistance in a 60-month period, and [IWRE 2002](#) stopped benefits after 24 months. For recipients who found employment, the period in which they received earnings disregards and other programme benefits counted towards their welfare 'clock'. Thus, there was a transition point where they went from working and receiving many other benefits to relying solely on earned income. Advisors had some discretion in the application of time limits and could grant extensions where they judged recipients to have made a good faith effort or to have been incapacitated through ill health.

7. Sanctions

Seven of the studies used partial or total cessation of welfare benefits for a designated period in response to non-compliance with some aspect of the interventions' work requirements ([CJF 2002](#); [California GAIN 1994](#); [FTP 2000](#); [IFIP 2002](#); [IWRE 2002](#); [MFIP 2000](#); [NEWS 2001](#)). Sanctions varied in severity across interventions. For instance, [MFIP 2000](#) removed 10% of an individual's Temporary Assistance for Needy Families (TANF) payments whilst [IFIP 2002](#) in some cases removed all of a claimant's benefits for a six-month period. Rates of sanctioning also varied within and between interventions. The [MFIP 2000](#) recent applicant group were not sanctioned for failure to take part in work-related activities until they had been in receipt of welfare benefit for 24 months out of a 36-month period. The MFIP-IO group were not required to seek work and were not sanctioned for failure to do so. As voluntary interventions, [New Hope 1999](#), [Ontario 2001](#), [SSP Applicants 2003](#), [SSP Recipients 2002](#) and [UK ERA 2011](#) did not include sanctions, although as noted above, any earnings supplements or other programme benefits were withdrawn if participants did not meet minimum work-related activity requirements.

8. Education and/or training

Most of the interventions included some form of education, training or both, whether they were explicitly described as HCD or LFA. In some this was limited to job searching skills or short-term courses ([CJF 2002](#); [MFIP 2000](#); [Ontario 2001](#)). Others provided a basic training course to bring participants to the level of a US high school graduate, followed by short vocational courses if participants were still unable to find work ([California GAIN 1994](#); [IFIP 2002](#); both the LFA and HCD components of [NEWS 2001](#)). [FTP 2000](#) developed an extensive set of services around training and development, including assigning specific staff to each participant, funding ongoing training for those who found employment, and developing training work placements in conjunction with local employers. [New Hope 1999](#), [SSP Applicants 2003](#) and [SSP](#)

[Recipients 2002](#) did not provide training but did provide advice and referrals to suitable courses. [UK ERA 2011](#) also provided information, but in addition paid for training and provided bonuses of up to GBP 1000 on completion of training.

9. Health insurance subsidies

Three interventions subsidised participants' health insurance ([CJF 2002](#); [IWRE 2002](#); [New Hope 1999](#)). [CJF 2002](#) provided transitional Medicaid for two years after participants found employment, and [IWRE 2002](#) subsidised health insurance while participants' incomes remained below the federal poverty level. [New Hope 1999](#) offered a subsidised health insurance scheme to respondents who were not eligible for employment-based health insurance or Medicaid. [MFIP 2000](#) participants were eligible for Minnesota's subsidised health insurance scheme, but this was not an intervention component. [California GAIN 1994](#), [FTP 2000](#), [IFIP 2002](#), [MFIP 2000](#) and [NEWS 2001](#) provided no health insurance over and above that available to control group members on gaining employment. [Ontario 2001](#), [SSP Applicants 2003](#), [SSP Recipients 2002](#) and [UK ERA 2011](#) were delivered in countries with universal healthcare systems, so health insurance was not a relevant component.

10. Case management

Case management was the method whereby individual 'cases' within welfare-to-work programmes were managed and controlled. Case managers were generally responsible for a wide range of tasks, including: client orientation, assessment, transmission of core messages, activity assignment, monitoring and tracking participation and progress, responding to non-compliance, maintaining case files, dealing with outside providers and providing pre- and post-employment advice. In practice, case management differed in terms of levels of contact, flexibility, enforcement and monitoring. The case manager/participant ratio also varied widely across interventions in response to both available resources and programme design. Based on each of these dimensions, we categorised the interventions as having high or low case management. [FTP 2000](#), [New Hope 1999](#), [NEWS 2001](#), [Ontario 2001](#) and [UK ERA 2011](#) all provided high levels of case management. In [CJF 2002](#), [SSP Applicants 2003](#) and [SSP Recipients 2002](#), levels of case management were low. Case management in [California GAIN 1994](#) varied across the study sites, and [IFIP 2002](#), [IWRE 2002](#) and [MFIP 2000](#) reported insufficient detail to assign a level.

Control condition

For studies conducted in the USA ([CJF 2002](#); [California GAIN 1994](#); [FTP 2000](#); [IFIP 2002](#); [IWRE 2002](#); [MFIP 2000](#); [New Hope 1999](#); [NEWS 2001](#)), the control condition prior to the passage of PRWORA in 1996 represented 'usual care', that is, control group members in all interventions were eligible for standard

welfare benefits under Aid for Families with Dependent Children (AFDC). Following the passage of PRWORA, the intervention condition was in fact 'usual care' as the interventions were rolled out statewide while they were being evaluated. Control group members in [CJF 2002](#), [FTP 2000](#), [IWRE 2002](#) and [MFIP 2000](#) were held back on previous conditions for the purposes of evaluation. [IFIP 2002](#) was terminated after 3.5 years, and all respondents were moved to TANF. Wisconsin Works was introduced in 1997 and affected all respondents in [New Hope 1999](#). Under AFDC, conditions varied to some degree from state to state. Commonly, however, AFDC was not time limited and included: an earned income disregard at a value considerably below that of most interventions; work requirements that commenced when the youngest child was older than those in the interventions; shorter periods of eligibility for transitional Medicaid and childcare assistance, and less severe sanctions for non-compliance. Receipt of welfare benefits was not subject to time limits. In the Canadian studies, control group members continued to be eligible for Income Assistance ([Ontario 2001](#); [SSP Applicants 2003](#); [SSP Recipients 2002](#)). Usual care in Canada varied across states and also changed during the course of the interventions. [SSP Applicants 2003](#) and [SSP Recipients 2002](#) took place in New Brunswick and British Columbia. Initially in both states work requirements were minimal. During the intervention, British Columbia introduced a six-month ban for those who left a job without just cause, reduced Income Assistance levels and reduced earnings disregards for receiving it. By contrast, in New Brunswick earnings disregards increased. During the evaluation of the [Ontario 2001](#) intervention, the state administration introduced work requirements for parents of school-aged children. In the UK, usual care for lone parents involved no work requirement other than attending a work-focused interview twice a year until 2008, when lone parents with a youngest child aged 12 or over (2008) and 7 and over (October 2009) were transferred to Jobseeker's Allowance (JSA), which is a conditional out-of-work benefit ([UK ERA 2011](#)). There was no time limit on benefit receipt.

Primary outcomes

Studies used a range of measures and formats to report primary and secondary outcomes within and between studies and across different time points. The following provides a summary of which outcomes were reported by each intervention. [Appendix 5](#) includes further details including the time points at which each outcome was reported. Although we searched for parental health outcomes, the vast majority of the sample in all included studies was female. Therefore, we describe adult health outcomes as 'maternal' for the remainder of the review.

Maternal mental health

All 12 studies reported maternal mental health outcomes. Nine studies used the Centre for Epidemiological Studies Depression

Scale (CES-D) ([CJF 2002](#); [California GAIN 1994](#); [FTP 2000](#); [IFIP 2002](#); [IWRE 2002](#); [MFIP 2000](#); [New Hope 1999](#); [NEWS 2001](#); [SSP Applicants 2003](#); [SSP Recipients 2002](#)), and two used the Composite International Diagnostic Interview (CIDI) ([CJF Yale 2001](#); [Ontario 2001](#)). These are both well validated and widely used measures of risk of depression in adults. They were reported both as a continuous measure (mean total score), and as a dichotomous measure (proportion scoring above a cutpoint defined as 'at risk of depression'). [Ontario 2001](#) used an alternative version of the CIDI scale (University of Michigan, Composite International Diagnostic Interview). Two studies used non-validated self-report measures of mental health; [California GAIN 1994](#) asked respondents how often they were unhappy or depressed, and [UK ERA 2011](#) asked how often respondents felt miserable or depressed. These were five-item scales reported as dichotomous outcomes.

Maternal physical health

Five studies reported a measure of maternal physical health using a five-item measure of self-rated health ranging from poor to very good or excellent ([CJF Yale 2001](#); [California GAIN 1994](#); [New Hope 1999](#); [Ontario 2001](#); [UK ERA 2011](#)). [CJF Yale 2001](#) reported the percentage of the sample with one or more physical health problems, while [California GAIN 1994](#), [Ontario 2001](#) and [UK ERA 2011](#) reported the percentage in good or very good health, and [New Hope 1999](#) reported the mean score on the five-item scale.

Child mental health

Ten studies reported child mental health measures ([CJF 2002](#); [FTP 2000](#); [IFIP 2002](#); [IWRE 2002](#); [MFIP 2000](#); [New Hope 1999](#); [NEWS 2001](#); [Ontario 2001](#); [SSP Applicants 2003](#); [SSP Recipients 2002](#)). The widely used Behavior Problems Index (BPI), which provides the score of responses to single items, was reported by [CJF 2002](#), [CJF Yale 2001](#), [FTP 2000](#), [IFIP 2002](#), [IWRE 2002](#), [MFIP 2000](#) and [NEWS 2001](#). [New Hope 1999](#) used the Problem Behavior Scale (PBS), while [SSP Applicants 2003](#) and [SSP Recipients 2002](#) reported the Behavior Problems Scale (BPS). These score each item from 1 to 3 or 1 to 5 (depending on the age of the child) and calculate the mean of the score for each item in the scale. Other measures reported included the Survey Diagnostic Instrument (SDI; reported by [Ontario 2001](#)) and the Child Behavior Checklist (CBC; reported by [CJF GUP 2000](#)). Investigators collected all of these measures via parent report. In addition, [SSP Recipients 2002](#) collected one measure of adolescent depression risk (CES-D % at risk) via self-report.

Child physical health

Nine studies reported a measure of child physical health. In five of these, mothers rated their child's health on a five-point scale ranging from poor to very good or excellent (CJF 2002; FTP 2000; IWRE 2002; New Hope 1999; NEWWS 2001). SSP Applicants 2003 and SSP Recipients 2002 reported the mean score across items using a four-item instrument. IFIP 2002 reported the percentage of children with fair or poor health, and MFIP 2000 reported the percentage with good or excellent health. All of these outcomes were collected via parent report.

Secondary outcomes

Employment

Ten studies reported employment outcomes (CJF 2002; California GAIN 1994; FTP 2000; IFIP 2002; IWRE 2002; New Hope 1999; NEWWS 2001; SSP Applicants 2003; SSP Recipients 2002; UK ERA 2011). All employment measures were dichotomous, reporting the percentage of the sample employed or not employed for a given measure. Measures reported were: currently employed (CJF 2002; CJF GUP 2000; CJF Yale 2001; FTP 2000; IFIP 2002; IWRE 2002; NEWWS 2001; SSP Applicants 2003; SSP Recipients 2002); currently employed full-time (IFIP 2002; New Hope 1999; NEWWS 2001; SSP Applicants 2003; UK ERA 2011); currently employed part-time (IFIP 2002; NEWWS 2001; SSP Applicants 2003; SSP Recipients 2002; UK ERA 2011); ever employed since randomisation (CJF Yale 2001; California GAIN 1994; MFIP 2000; NEWWS 2001); ever employed in the year of data collection (CJF 2002; FTP 2000; New Hope 1999; UK ERA 2011); and ever employed full- or part-time since randomisation (California GAIN 1994; MFIP 2000; SSP Recipients 2002). In some cases we derived these measures by, for instance, summing categorical outcomes that reported hours of work per week in order to calculate values for full- and part-time employment. We defined full-time employment as 30 or more hours per week.

Income and earnings

Nine studies reported measures of income. CJF 2002, FTP 2000, MFIP 2000 and New Hope 1999 reported total average income for the year of data collection. IWRE 2002 reported income for the month prior to the survey annualised to represent the previous year's income. IFIP 2002 and NEWWS 2001 reported average income in the month prior to the survey. SSP Applicants 2003 and SSP Recipients 2002 reported average income per month in the six months prior to data collection. At 60 months, NEWWS 2001 also reported total income for years 1 to 5. Income included earnings, food stamps, supplements provided by the intervention and AFDC/TANF payments. IWRE 2002, New Hope 1999, SSP Applicants 2003 and SSP Recipients 2002 also included earned income tax credit (EITC) in the total income figure.

Eleven studies reported a measure of earnings. CJF 2002, MFIP 2000, New Hope 1999, SSP Applicants 2003, SSP Recipients 2002 and UK ERA 2011 reported average total earnings for the year prior to the survey. IWRE 2002 reported annualised earnings in the month prior to the survey. California GAIN 1994 reported average weekly earnings since randomisation, and IFIP 2002 reported average earnings in the month prior to the survey. NEWWS 2001 reported total earnings for years 1 to 5. FTP 2000 did not report earnings directly, but we calculated this by subtracting income from AFDC/TANF and food stamps from the figure for total income.

Many of the interventions included either an earned income disregard or a financial supplement in order to make work pay and ease the transition from welfare to work. Most of these were time limited, with limits ranging from 21 to 36 months (although extensions were often available for people with particular difficulties). Where earned income was disregarded, respondents could claim welfare while earning at much higher levels than previously. However, the periods while working and claiming welfare counted towards the respondent's lifetime limit on welfare receipt. While supplements or disregards were being paid, respondents' total income could increase even if their earned income was low. Obviously when time limits were reached, this effect ceased. In all cases, time limits were reached during the period defined as T2 (24 to 48 months). A number of studies also reported total earnings. We extracted both measures in order to investigate the relationship between earned and total income.

Welfare receipt

Ten studies used a number of different measures to report welfare receipt (CJF 2002; FTP 2000; IFIP 2002; IWRE 2002; New Hope 1999; NEWWS 2001; Ontario 2001; SSP Applicants 2003; SSP Recipients 2002; UK ERA 2011). CJF 2002, FTP 2000, IFIP 2002, MFIP 2000, New Hope 1999, SSP Applicants 2003 and SSP Recipients 2002 reported the average amount received in the year prior to the survey. IWRE 2002 reported the average amount received in the month prior to the survey, annualised, and NEWWS 2001 reported the total amount of benefit received between years 1 and 5. UK ERA 2011 reported the average amount of benefits received per week. IFIP 2002, IWRE 2002, NEWWS 2001 and UK ERA 2011 reported the proportion of the sample currently in receipt of benefit. New Hope 1999 and Ontario 2001 reported the proportion of the sample receiving benefits in the year prior to the survey. Since lower levels of total welfare paid and of numbers claiming welfare are the desirable outcomes from policy makers' perspectives, we defined these as positive in the analyses. It should be noted that in a number of interventions, welfare received and the proportion of the sample on welfare would be expected to increase in the short- to medium-term, as higher disregards of earned income in calculating welfare entitlement led to continuing eligibility for welfare while working. This effect would

be expected to decrease in the medium- to long-term, however, as eligibility for disregards expired.

Health insurance

Six of the studies conducted in the USA reported data on health insurance (CJF 2002; California GAIN 1994; IFIP 2002; MFIP 2000; New Hope 1999; NEWS 2001). Ontario 2001, SSP Recipients 2002, SSP Applicants 2003 and UK ERA 2011 took place in Canada and the UK, where the state provides universal health coverage. Therefore these studies did not report data on health insurance. All health insurance outcomes were dichotomous and measured in many different ways, precluding meta-analysis. Effect sizes were calculated for all reported measures.

Excluded studies

See [Results of the search](#); [Characteristics of excluded studies](#).

Risk of bias in included studies

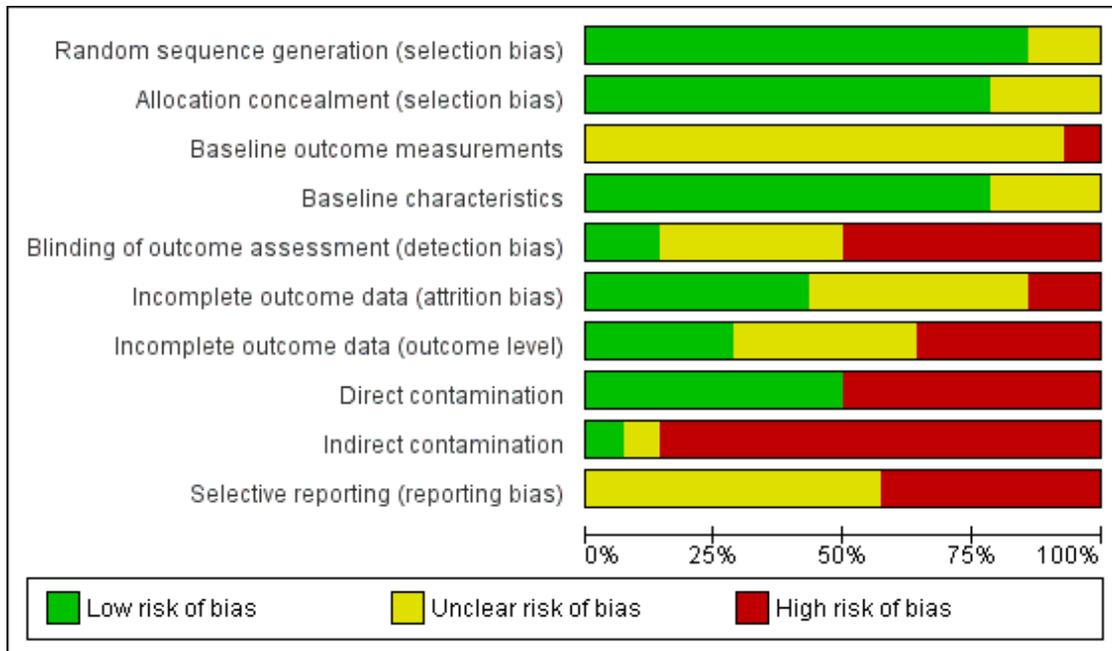
All studies had at least one item at high risk of bias, with two studies having four domains at high risk (NEWS 2001; Ontario 2001). All but two studies were at low risk of bias for allocation concealment and sequence generation, and it is very likely that these two studies conducted these but did not report it (IFIP 2002; IWRE 2002). Blinding of outcome assessment was rare, and only one study reported baseline outcome measurements (Ontario 2001).

All risk of bias judgements are presented in the [Characteristics of included studies](#) tables and summarised in [Figure 5](#) and [Figure 6](#). Since all studies were at high risk in at least one domain, the summary judgement was that all the included studies were at high risk of bias.

Figure 5. Risk of bias summary: review authors' judgements about each risk of bias item for each included study.

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Baseline outcome measurements	Baseline characteristics	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Incomplete outcome data (outcome level)	Direct contamination	Indirect contamination	Selective reporting (reporting bias)
California GAIN 1994	+	+	?	+	-	?	+	+	+	?
CJF 2002	+	+	?	+	-	+	-	+	-	?
CJF GUP 2000	+	+	?	?	-	?	?	+	-	-
CJF Yale 2001	+	+	?	+	-	?	?	+	-	?
FTP 2000	+	+	?	+	-	?	-	+	-	?
IFIP 2002	?	?	?	+	?	+	+	-	-	?
IWRE 2002	?	?	?	+	?	+	?	+	-	?
MFIP 2000	+	+	?	?	+	+	+	+	-	-
New Hope 1999	+	+	?	+	-	+	+	-	-	-
NEWWS 2001	+	+	?	+	-	+	-	-	-	-
Ontario 2001	+	?	-	+	+	-	?	-	-	-
SSP Applicants 2003	+	+	?	+	?	?	-	-	-	?
SSP Recipients 2002	+	+	?	?	?	?	-	-	-	-
UK ERA 2011	+	+	?	+	?	-	?	-	?	?

Figure 6. Risk of bias graph: review authors' judgements about each risk of bias item presented as percentages across all included studies.



Allocation

Allocation concealment and sequence generation

Nine studies were conducted by or in partnership with large North American non-profit research companies, with well-established reputations for conducting good quality research (MDRC, formerly Manpower Demonstration Research Corporation, and its sister organisation, the Social Research and Demonstration Corporation (SRDC)) (CJF 2002; California GAIN 1994; FTP 2000; MFIP 2000; New Hope 1999; NEWS 2001; SSP Applicants 2003; SSP Recipients 2002; UK ERA 2011). As such, they adopt robust procedures for sequence generation; communication with study authors confirmed this. The description of MDRC's sequence generation procedure, as provided by Cynthia Miller of MDRC, is available in Appendix 6. Where reports explicitly describe allocation concealment, it is clearly conducted correctly, as in the following text:

"FTP staff members placed a phone call to MDRC and read a few items from the BIF [background information form] to an MDRC

clerk. Using this information, individuals were randomly assigned to either the FTP or the AFDC group by a computer program on site at MDRC" (FTP 2000).

As described in the *Cochrane Handbook of Systematic Reviews of Interventions* (Higgins 2011a), we based our judgement of other studies conducted by the same organisation on our knowledge of FTP 2000, concluding that for all MDRC and SRDC studies, allocation concealment was 'probably done'. One study took place in an academic setting (Ontario 2001). While authors clearly described adequate methods of sequence generation for this study, they provided no information about allocation concealment, leading to a judgement of unclear risk of bias. Private (for-profit) research organisations conducted IFIP 2002 and IWRE 2002 (Mathematica Associates and Abt Associates, respectively). Since the trial reports provided no information, we judged the studies to be at unclear risk for both sequence generation and allocation concealment. However, again these are large and very reputable companies, and it is highly likely that they followed correct procedures.

Baseline outcome measures

We assessed baseline measures at the level of individual outcomes. We assessed outcomes that were not reported at baseline to be at unclear risk of bias. Where investigators collected and adjusted for baseline measures, or reported them by intervention status with few significant differences, we assessed them to be at low risk. Where studies did not report baseline outcomes by intervention status, or where there were differences between groups at baseline and authors reported no adjustment, we judged them to be at high risk.

Twelve studies reported no health outcomes at baseline, therefore all were judged to be at unclear risk of bias (CJF 2002; CJF GUP 2000; CJF Yale 2001; California GAIN 1994; FTP 2000; IFIP 2002; IWRE 2002; MFIP 2000; New Hope 1999; SSP Applicants 2003; SSP Recipients 2002; UK ERA 2011). Ontario 2001 reported all baseline outcome measures, but these differed across intervention groups and authors did not describe any adjustment, so we assessed it as being at high risk of bias. NEWWS 2001 reported and adjusted for maternal mental health at baseline but did not collect any other health outcomes at baseline, and we deemed it to be at unclear risk of bias.

Baseline characteristics

We assessed risk of bias in the domain of baseline characteristics at study level. Where studies reported baseline characteristics by intervention group and showed them to have no statistically significant differences, or where they used regression to adjust for baseline differences, we assigned a judgement of low risk of bias. We considered that 11 studies met these criteria (CJF 2002; CJF Yale 2001; California GAIN 1994; FTP 2000; IFIP 2002; IWRE 2002; New Hope 1999; NEWWS 2001; Ontario 2001; SSP Applicants 2003; UK ERA 2011). Three studies were at unclear risk of bias as they did not present baseline characteristics by intervention group and did not report adjusting for all characteristics (CJF GUP 2000; MFIP 2000; SSP Recipients 2002).

Blinding

Blinding of outcome assessment was conducted at the level of individual outcomes. With few exceptions, investigators assessed health outcomes through face-to-face surveys. All mental and physical health outcomes were self-report measures. Six studies reported that data collectors were not blinded, and we assessed them to be at high risk of bias (California GAIN 1994; CJF 2002; CJF GUP 2000; CJF Yale 2001; New Hope 1999; NEWWS 2001). Five studies provided no information on blinding of outcome assessors (IFIP 2002; IWRE 2002; SSP Applicants 2003; SSP Recipients 2002; UK ERA 2011). Although it is very unlikely that assessors were blinded, we judged studies to be at unclear risk in the absence of further information. MFIP 2000 collected 'sensitive' outcomes via Audio-Enhanced, Computer-Assisted Self-Interviewing and we judged it to be at low risk of bias. In Ontario

2001, although all data were collected face-to-face, outcome assessors were blinded for all outcomes, so we assessed the study to be at low risk of bias.

Incomplete outcome data

We conducted risk of bias assessment for missing outcome data at study level and at outcome level. At study level, we assessed unit non-response (attrition), and at outcome level we assessed item non-response.

At study level, we considered six studies that reported using weighting or imputation to deal with missing data to be at low risk of bias (CJF 2002; IFIP 2002; IWRE 2002; MFIP 2000; New Hope 1999; NEWWS 2001). Six studies reported attrition of up to 29% but did not discuss reasons for attrition, and we judged them to be at unclear risk of bias (CJF Yale 2001; CJF GUP 2000; California GAIN 1994; FTP 2000; SSP Applicants 2003; SSP Recipients 2002). We assessed two studies to be at high risk of bias (Ontario 2001; UK ERA 2011). At two years, response rates for Ontario 2001 varied across groups, ranging from 39% to 58%, and by four years, the response rate had increased to 78.5% of baseline, with no further information provided. UK ERA 2011 reported a response rate at follow-up of 62%, and the authors noted that more disadvantaged respondents were more likely to drop out. Compared to the larger sample that used administrative data, data from the survey overestimated impacts on earnings, and the authors urge caution in interpreting the findings. Thus, we consider that the risk of bias from missing outcome data is particularly high for this study.

We deemed four studies to be at low risk of bias from missing item-level data for all outcomes. California GAIN 1994 and IFIP 2002 reported that item non-response was low, while both MFIP 2000 and New Hope 1999 used multiple imputation to account for missing item data. We assessed five studies that provided no information on missing item level data to be at unclear risk (CJF Yale 2001; CJF GUP 2000; IWRE 2002; Ontario 2001; UK ERA 2011). Authors reported that sample sizes may have varied for individual outcomes in CJF 2002, FTP 2000, NEWWS 2001, SSP Applicants 2003 and SSP Recipients 2002, so we assigned a high risk of bias.

Contamination

We judged all but California GAIN 1994 as being at high risk of bias due to contamination. We could describe contamination in these studies as either indirect, that is, where the control group were likely to have been influenced by changes in social attitudes towards welfare and by awareness of changing rules affecting the majority of the population, or direct, where there was evidence that the control group were actually subject to the treatment condition at some point during the study.

In the USA, following the passage of PRWORA in 1996, welfare policies very similar to those applied to the experimental groups

were implemented nationwide. In Canada, restrictions to welfare benefits for lone parents were also implemented in the late 1990s, and in the UK requirements to seek employment were placed on lone parents of successively younger children. As a result, the control group were directly affected by the new policies in a number of studies. [New Hope 1999](#) (T3 data only), [NEWS 2001](#) (T3 data only), [Ontario 2001](#) (T2 data only), [SSP Applicants 2003](#), [SSP Recipients 2002](#) and [UK ERA 2011](#) all operated during periods when welfare policies changed, and investigators were unable to prevent new requirements applying to control groups. In most cases it is difficult to be sure how much these changes affected controls. [NEWS 2001](#) reported that 15% of Atlanta and 7% of Grand Rapids controls had some exposure to the intervention at T3. In [New Hope 1999](#) and [UK ERA 2011](#), only control group members in receipt of benefits, and in the case of [UK ERA 2011](#), with a youngest child aged under 12 (2008) or 10 (2009) would have been affected. We judged all of these studies to be at high risk of bias from direct contamination.

Five US studies, known collectively as the Child Waiver Impact Experiments (CWIE), operated after the implementation of welfare reform and intended to maintain experimental conditions for the duration of the study ([CJF 2002](#); [FTP 2000](#); [IFIP 2002](#); [IWRE 2002](#); [MFIP 2000](#)). All were successful in this except [IFIP 2002](#), since the intervention was terminated and the control group moved to the new state level policy three and a half years after randomisation. We judged [IFIP 2002](#) to be at high risk of bias from direct contamination and the remainder to be at low risk. Media coverage and publicity, as well as changed attitudes to welfare, accompanied the new policies, and there is evidence that some control group respondents in the CWIE studies believed themselves to be subject to the new rules ([Moffitt 2004](#)). However, in most cases the evaluation teams made concerted efforts to minimise contamination and ensure that control groups were aware of conditions pertaining to them, and they argued that substantial treatment-control differences remained ([Bloom 1999](#)). We judged all of the CWIE studies to be at high risk of bias from indirect contamination.

It is also likely that [New Hope 1999](#), [NEWS 2001](#), [Ontario 2001](#), [SSP Applicants 2003](#), [SSP Recipients 2002](#) and [UK ERA 2011](#) were affected by attitude changes and awareness of more restrictive policies. We deemed these to be at high risk of indirect contamination. We believe that only [California GAIN 1994](#), which was conducted prior to the introduction of TANF, was at low risk of bias from indirect contamination.

It is likely that contamination bias would lead to an underestimation of impacts on economic outcomes among the intervention group, as control group members endeavoured to find employment in the mistaken belief that this was now required of them. Underestimation of impacts is not deemed to be as serious as overestimation ([Higgins 2011a](#)); however, it is difficult to be sure what effect this type of contamination would have had on health outcomes.

Selective reporting

We assessed selective outcome reporting at study level. Protocols were not available for any of the included studies, and studies that reported data for more than one time point or subgroup rarely reported outcomes consistently across groups or times. We assessed six studies to be at high risk of bias for this reason ([CJF GUP 2000](#); [MFIP 2000](#); [New Hope 1999](#); [NEWS 2001](#); [Ontario 2001](#); [SSP Recipients 2002](#)). [NEWS 2001](#) reported maternal mental health at T1 but not at T3. We assessed a further eight studies to be at unclear risk because there was no way to ascertain whether they reported all planned outcomes ([CJF 2002](#); [California GAIN 1994](#); [FTP 2000](#); [IFIP 2002](#); [IWRE 2002](#); [Ontario 2001](#); [SSP Applicants 2003](#); [UK ERA 2011](#)).

Other potential sources of bias

Government bodies, which arguably had a vested interest in the success of the interventions, funded and participated in all included studies except [New Hope 1999](#). Sources of funding are recognised as potential sources of bias. However, as stated, the evaluations involved highly reputable research organisations that have made major contributions to the development of methods for conducting social experiments in their own right. As such, there is no suggestion that the findings were in any way influenced by the source of funding.

Quality of the evidence

See [Summary of findings for the main comparison](#); [Summary of findings 2](#).

All included studies were at high risk of bias in at least one domain, therefore we downgraded all evidence once for this criterion. As a result, no evidence could attain a quality rating higher than moderate. We judged two studies to be at very high risk of bias - [UK ERA 2011](#) due to high and systematic attrition leading to biased estimates, and [Ontario 2001](#) (at T1) due to severe attrition (> 60%). Where these studies contributed more than 10% of the overall weight to a meta-analysis, we downgraded the evidence twice for the risk of bias criterion. We downgraded much economic evidence at T3 due to the inclusion of [UK ERA 2011](#) in the analyses. However, exclusion of this study had only marginal effects on the estimates. We also downgraded some health outcomes at T3 due to [UK ERA 2011](#)'s very high risk of bias.

We considered few effects to be at serious risk of inconsistency. If heterogeneity was more than 50%, effect directions differed, and we could not identify any plausible explanation, we downgraded the evidence once for inconsistency. Where heterogeneity was high but there was a plausible explanatory hypothesis, we did not downgrade and presented a post hoc sensitivity analysis in [Effects of interventions](#). Similarly, if I^2 was above 50% but all effects were in the same direction, we did not downgrade for inconsistency. We discuss these instances in [Effects of interventions](#).

In relation to indirectness, the population of interest for this review was lone parents in receipt of welfare benefits in high-income countries. Since the populations of all included studies met these criteria, we did not downgrade for indirectness. None of the outcomes included in the review were indirect measures, so we did not downgrade for indirectness in relation to outcomes.

We did downgrade a number of health outcomes for imprecision due to low event rates. Since we had no reason to suspect that other studies have been conducted but remained unpublished, we did not downgrade any outcomes for publication bias. We assessed outcomes for which an effect size could not be calculated as being of unclear quality.

In most domains, there were a number of measures of the same outcome that we could not include in a meta-analysis. Within each domain, there was often a range of quality assessments for different measures. We based an overall assessment for the domain as a whole on the grade assigned to the analysis or analyses with the largest total sample size. On this basis, of the 12 health domains, we assessed all as moderate quality except T1 maternal mental health (low quality), T3 maternal physical health (low quality) and T3 child mental health (unclear quality). We assessed all T1 and T2 economic domains as moderate quality and all T3 ones as low quality. We report these domain level assessments in the domain summaries in [Effects of interventions](#).

Effects of interventions

See: [Summary of findings for the main comparison Welfare to work for lone parents. Maternal health outcomes](#); [Summary of findings 2 Welfare to work for lone parents. Child health outcomes](#)

Although authors explicitly described many of the interventions as adopting a certain ethos or approach (CR/AP, HCD/LFA; see [Description of the intervention](#)), we found that in practice, they did not actually differ from one another as much as expected. In addition, there were too few of a given type at each time point to permit grouping them by type for meta-analysis. For this reason, we included all interventions that reported suitable data at each time point in the meta-analyses. The comparison in all cases was with usual care (see [Description of the intervention](#)).

As described in [Data synthesis](#), we grouped the interventions by time point (T1 = 18 to 24 months, T2 = 25 to 48 months, T3 = 49 to 72 months) and synthesised the outcomes by time point and domain (e.g. T1 maternal mental health), as this was how studies reported results. In most cases, it was not possible to include all outcomes in a given domain in a single meta-analysis, either because there was a mixture of continuous and dichotomous outcomes, because dichotomous outcomes reported were heterogeneous, or because authors did not report a measure of variance. We reported these outcomes narratively in the text, and where it was possible to calculate an effect size, we presented it in forest plots. Since it can be challenging to comprehend the range of analyses, particularly where there is a mixture of meta-analyses and narrative reporting,

tables summarising all of the main analyses conducted are available at [Web appendix 1](#) and [Web appendix 2](#). These are designed to summarise the direction and strength of effects, as well as the quality of evidence available, in a way that readers can apprehend visually. Upward and downward pointing arrows indicate positive and negative directions of effect, respectively, defined in terms of the desirability of the outcome (e.g. an upward pointing arrow is used for a reduction in CES-D, as this indicates better mental health). A single arrow represents a 'very small' effect, two arrows a 'small' effect, and three a 'modest' effect, as defined in [Table 5](#). A 'o' indicates that there is evidence of no effect. The colour of the arrow denotes the quality: green indicates moderate quality; amber, low quality; and red, very low quality. Where we could not assess quality, we used black.

For dichotomous outcomes, we defined the 'event' as reported by study authors, whether it was considered a 'good' or a 'bad' outcome. For instance, when calculating employment, we defined the good outcome (being employed) as the event, although traditionally the bad outcome is considered the event ([Alderson 2009](#)). In some outcomes, risk ratios (RRs) are high because there are so few events; when event and non-event are reversed, the effect size is much smaller. However, we reported the RRs in this way because this is how the original studies reported them. We identify instances where the 'good' outcome is defined as the event as such in the 'Summary of findings' tables ([Summary of findings for the main comparison](#); [Summary of findings 2](#)).

Effect sizes across virtually all outcomes were small (i.e. SMD 0.20 to 0.49) or trivial (SMD > 0.20) using Cohen's rule for interpreting SMDs or RRs ([Cohen 2013](#)). However, there is debate regarding the utility of these rules for interpreting the effects of population level interventions, since an effect that appears small or even tiny when considered at the level of the individual may be important if replicated across a large population ([Kunzli 2000](#), [Siontis 2011](#)). Cohen has stated that effect sizes observed outside laboratory conditions are likely to be small, and that use of his definitions of effect magnitude warrant caution ([Cohen 2013](#)). Other authors have also argued that in interventions which affect large populations, an SMD of 0.10 could be important if replicated across the population ([Coe 2002](#)). We therefore employed a modified approach to defining effect sizes, taking an SMD of < 0.10 to represent a 'very small' effect, 0.11 to 0.20 a 'small' effect, and > 0.20 a 'modest' effect. 'Very small' effects are unlikely to be important, particularly where the confidence intervals (CIs) cross the line of null effect ([Ryan 2016](#)). We present our definitions in [Table 5](#) alongside those recommended by Cohen. The effect magnitude for RRs below 1 is calculated by subtracting 1 from the RR then multiplying by 100, such that RR 0.80 to 0.50 is equivalent to RR 1.20 to 1.50, and RR 0.81 to 0.99 is equivalent to RR 1.01 to 1.19. These are defined as small and very small effects, respectively.

Primary outcomes

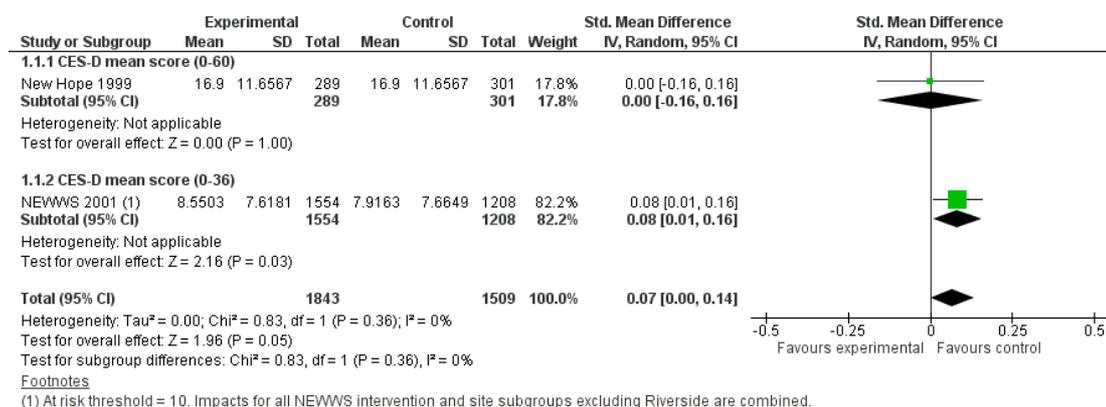
Maternal mental health

Time point 1 (T1): 18 to 24 months since randomisation

All five studies reporting at T1 reported a measure of maternal mental health. [New Hope 1999](#) and [NEWWS 2001](#) reported continuous measures (CES-D scale mean scores 0 to 60 and 0 to 36, respectively), and a further three studies reported dichotomous measures ([CJF GUP 2000](#); [CJF Yale 2001](#); [Ontario 2001](#)). We combined the continuous measures in a meta-analysis. However, the dichotomous measures reported differed across studies and were not amenable to meta-analysis.

Meta-analysis of the two continuous outcomes indicated that mental health was worse in the intervention group up to two years after the intervention. Although the evidence was of moderate quality, the effect was very small (SMD 0.07, 95% CI 0.00 to 0.14; N = 3352; 2 studies; [Analysis 1.1](#); [Figure 7](#)). Both outcomes from the CJF substudies ([CJF GUP 2000](#): RR 1.21, 95% CI 0.72 to 2.06, N = 308; [CJF Yale 2001](#): RR 1.18, 95% CI 0.80 to 1.74, N = 311) indicated that mental health was better in the control group, while [Ontario 2001](#) reported no effect of the intervention ([Analysis 1.2](#)). However, the evidence from [CJF GUP 2000](#) and [CJF Yale 2001](#) was of low quality due to wide confidence intervals that encompassed both no effect and appreciable harm. The evidence from [Ontario 2001](#) was of very low quality for the same reason and due to high attrition.

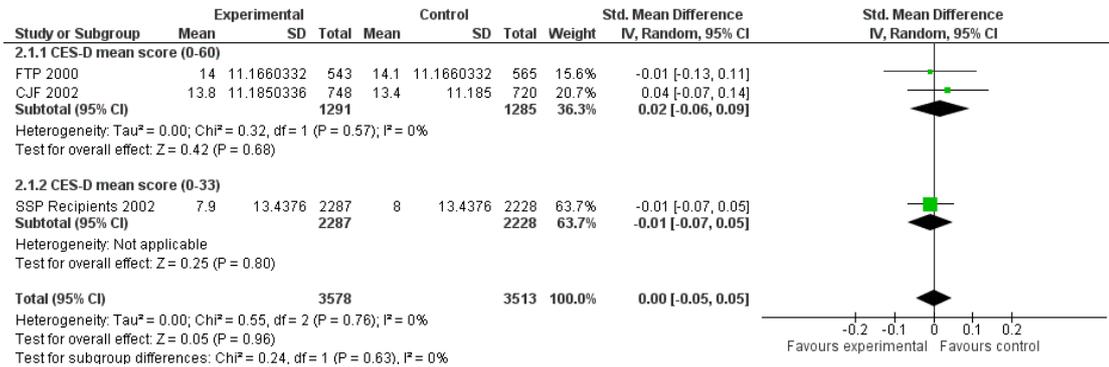
Figure 7. Forest plot of comparison: I Time point I Maternal mental health, outcome: I.1 Maternal mental health continuous.



Time point 2 (T2): 25 to 48 months since randomisation

All of the six included studies that reported at T2 reported maternal mental health. [CJF 2002](#), [CJF GUP 2000](#), [FTP 2000](#), and [SSP Recipients 2002](#) reported CES-D mean score. [CJF GUP 2000](#) did not report sample sizes for intervention and control groups or measures of variance, so we could not include these data in a meta-analysis. Meta-analysis of the remaining three studies provided moderate-quality evidence of no effect of the intervention on maternal mental health (SMD 0.00, 95% CI -0.05 to 0.05; N = 7091; [Analysis 2.1](#); [Figure 8](#)). [CJF GUP 2000](#) reported higher depression scores among the intervention group (CES-D 15.5 versus 13.9; P < 0.10; [Analysis 2.2](#)).

Figure 8. Forest plot of comparison: 2 Time point 2 Maternal mental health, outcome: 2.1 Maternal mental health continuous.



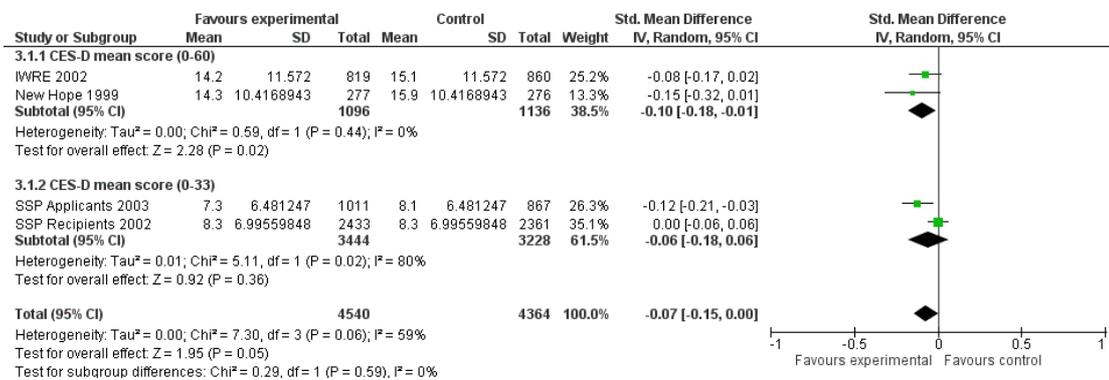
California GAIN 1994 and MFIP 2000 reported different dichotomous measures, precluding meta-analysis. California GAIN 1994 reported the percentage of the sample who said they felt unhappy, sad or depressed, and MFIP 2000 reported the percentage of respondents at high risk of depression on the CES-D scale ($\geq 23/60$). California GAIN 1994 reported a very small effect in favour of the control group (RR 1.06, 95% CI 0.95 to 1.18; N = 2242), and MFIP 2000 reported no effect on high risk of depression (Analysis 2.3). Evidence from both studies was of moderate quality, although the result from California GAIN 1994 was unlikely to be important as the effect was very small and the CI crossed the line of null effect.

Time point 3 (T3: 49 to 72 months since randomisation)

Six out of seven studies with follow-up at T3 reported a measure of maternal mental health. IWRE 2002, New Hope 1999, SSP Applicants 2003 and SSP Recipients 2002 reported CES-D mean score. IFIP 2002 reported the percentage at high risk of depression on the CES-D scale ($\geq 23/60$), and UK ERA 2011

reported the percentage who often or always felt miserable or depressed. The two dichotomous outcomes were incommensurate and not amenable to meta-analysis. NEWWS 2001 reported maternal mental health at T1 but not at T3. Meta-analysis of four continuous outcomes provided moderate-quality evidence of a very small favourable impact on maternal mental health (SMD -0.07, 95% CI -0.15 to 0.00; N = 8873; 4 studies; Analysis 3.1; Figure 9; IWRE 2002; New Hope 1999; SSP Applicants 2003; SSP Recipients 2002). We calculated effect sizes for the two dichotomous outcomes; there was a very small effect in favour of the intervention for high risk of depression in IFIP 2002 (RR 0.94, 95% CI 0.73 to 1.20; N = 813), while UK ERA 2011 reported a small effect in favour of control (RR 1.25, 95% CI 0.98 to 1.59; N = 1365; Analysis 3.2). However, the evidence from these studies was of low and very low quality, respectively, due to wide confidence intervals including both no effect and appreciable benefit in IFIP 2002 or harm in UK ERA 2011, and high attrition in UK ERA 2011.

Figure 9. Forest plot of comparison: 3 Time point 3 Maternal mental health, outcome: 3.1 Maternal mental health continuous.



Summary

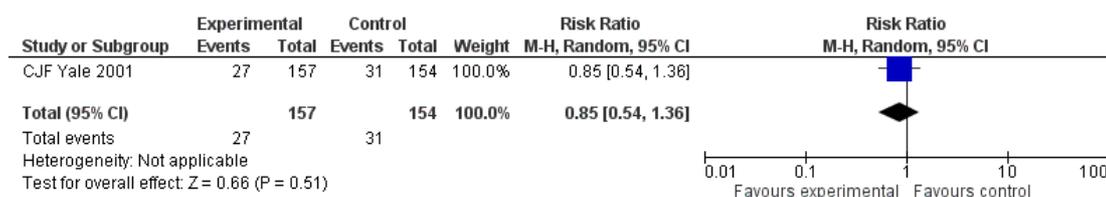
Effects on maternal mental health varied across time points, with moderate-quality evidence of a very small negative impact of the intervention at T1, no effect at T2, and a very small positive effect at T3. At T1 and T3 there were individual studies that reported larger negative effects on maternal mental health, but the evidence was of low or very low quality. One study that reported a very small negative impact at T1 did not report maternal mental health at T3. At all time points, evidence of moderate quality predominated, therefore the overall quality assessment for maternal mental health at each time point was moderate.

Maternal physical health

Time point 1 (T1): 18 to 24 months since randomisation

One study reported the percentage of the sample in fair or poor health at T1, providing evidence of low quality that the intervention group reported better health than control (RR 0.85, 95% CI 0.54 to 1.36; N = 311; [Analysis 4.1](#); [Figure 10](#); [CJF Yale 2001](#)). We downgraded this evidence due to imprecision. [CJF GUP 2000](#) also collected a measure of self-reported health but did not report impacts by intervention group.

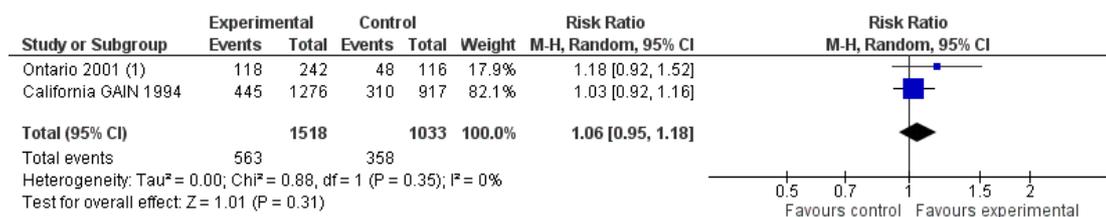
Figure 10. Forest plot of comparison: 4 Time point 1 Maternal physical health, outcome: 4.1 In poor health (%).



Time point 2 (T2): 25 to 48 months since randomisation

Two studies reported the percentage of the sample in good or excellent health at T2 ([California GAIN 1994](#); [Ontario 2001](#)). Meta-analysis indicated that the intervention group reported better health than control, although this was a very small effect (RR 1.06, 95% CI 0.95 to 1.18; N = 2551; [Analysis 5.1](#); [Figure 11](#)). Although the evidence was of moderate quality, the effect is unlikely to be important, as the effect size is very small and the CI crosses the line of null effect.

Figure 11. Forest plot of comparison: 5 Time point 2 Maternal physical health, outcome: 5.1 In good or excellent health %. Event defined as In good or excellent health.



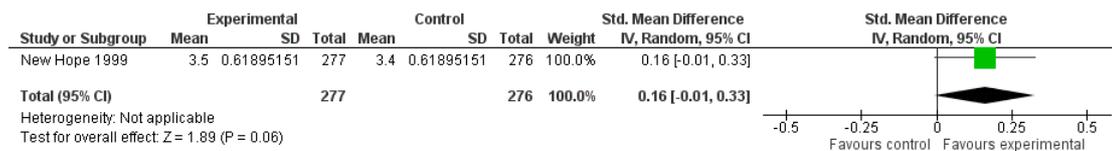
Footnotes

(1) Values for In excellent health and In good health summed.

Time point 3 (T3): 49 to 72 months since randomisation

Two studies assessed self-reported physical health at T3. [New Hope 1999](#) reported mean score on the maternal physical health scale, which showed moderate-quality evidence of a small effect in favour of the intervention (SMD 0.16, 95% CI -0.01 to 0.33; N = 553; [Analysis 6.1](#); [Figure 12](#)). [UK ERA 2011](#) reported the proportion of the sample with good/very good health. This showed a very small effect in favour of control (RR 0.97, 95% CI 0.91 to 1.04; N = 1854; [Analysis 6.2](#)). However, the evidence was of low quality due to high risk of bias from attrition, and the effect was unlikely to be important as it was very small and the CI crossed the line of null effect.

Figure 12. Forest plot of comparison: 6 Time point 3 Maternal physical health, outcome: 6.1 Self-reported health (1-5).



Summary

Only four studies reported measures of maternal physical health, and all but one reported small to very small positive effects. There was moderate-quality evidence of a very small positive effect at T2 and a small positive effect at T3. [UK ERA 2011](#) reported a very small negative effect on maternal physical health at T3, but the evidence was of low quality. The evidence on maternal physical health at T1 and T3 was predominantly of low quality; therefore we assessed evidence at both time points to be low quality overall. At T2, the evidence was of moderate quality.

Child mental health

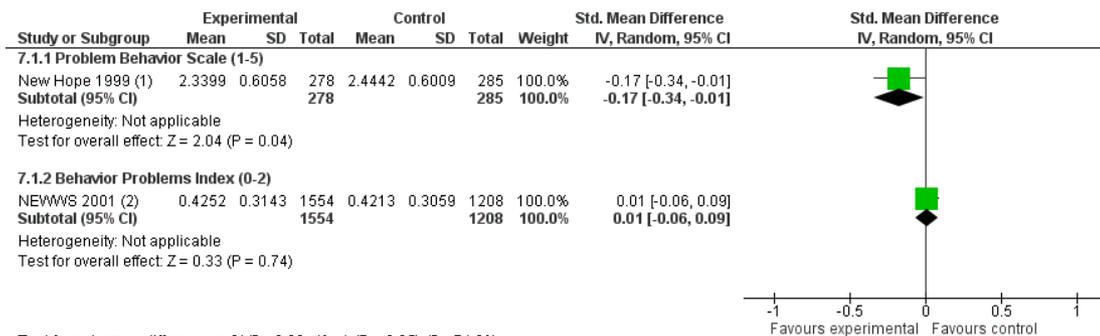
Time point 1 (T1): 18 to 24 months since randomisation

Four studies reported a measure of child behaviour problems at T1. [New Hope 1999](#) and [NEWWS 2001](#) reported mean scores for the Problem Behavior Scale (PBS) and the Behavior Problems Index (BPI), respectively. [Ontario 2001](#) reported the proportion of the sample with three or fewer behaviour disorders as a categorical

variable. We dichotomised the latter variable to create an outcome for the proportion of the sample with two or three behaviour disorders. [CJF Yale 2001](#) reported the proportion of the sample with behaviour problems (measured using the BPI). We could not meta-analyse the dichotomous outcomes, but we calculated effect sizes.

In a meta-analysis including [New Hope 1999](#) and [NEWWS 2001](#), heterogeneity was high ($I^2 = 75%$, $P = 0.05$). In a post hoc analysis, we calculated individual effect sizes for the outcomes showing that [New Hope 1999](#) had a small positive impact on the intervention group (SMD -0.17, 95% CI -0.34 to -0.01; N = 563), and [NEWWS 2001](#) had a very small negative effect (SMD 0.01, 95% CI -0.06 to 0.09; N = 2762; [Analysis 7.1](#); [Figure 13](#)). We hypothesised that intervention characteristics caused this heterogeneity, as [New Hope 1999](#) was a voluntary anti-poverty intervention that provided a generous earnings supplement, while [NEWWS 2001](#) by contrast was mandatory and offered no earnings supplement. While income showed a small increase in [New Hope 1999](#), there was a very small decrease in [NEWWS 2001](#). Evidence from each study was of moderate quality.

Figure 13. Forest plot of comparison: 7 Time point I Child mental health, outcome: 7.1 Child behaviour problems continuous.



Test for subgroup differences: Chi² = 3.99, df = 1 (P = 0.05), I² = 74.9%

Footnotes

(1) Impacts for children aged 3-5 and 6-12 were combined

(2) Children aged 5-7. Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

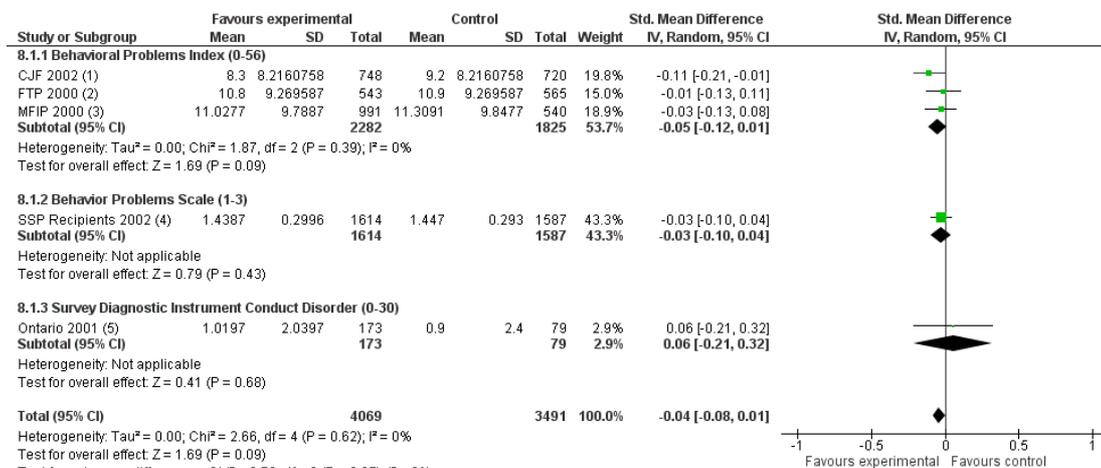
Individual effect sizes for the dichotomous outcomes showed modest negative effects on behaviour problems in the intervention groups in both [Ontario 2001](#) (RR 1.58, 95% CI 0.48 to 5.24; N = 178) and [CJF Yale 2001](#) (RR 1.58, 95% CI 0.92 to 2.72; N = 311; [Analysis 7.2](#)). However, evidence from these outcomes was low quality in [CJF Yale 2001](#) and very low quality in [Ontario 2001](#) due to wide confidence intervals including no effect and appreciable harm and very high risk of bias in [Ontario 2001](#).

Time point 2 (T2): 25 to 48 months since randomisation

A meta-analysis including continuous measures of child behaviour problems from five studies provided moderate-quality evidence of a very small effect in favour of the intervention at T2 (SMD -0.04, 95% CI -0.08 to 0.01; N = 7560; [Analysis 8.1 Figure](#)

[14](#); [CJF 2002](#); [FTP 2000](#); [MFIP 2000](#) urban respondents only; [Ontario 2001](#); [SSP Recipients 2002](#)). This effect was very small and the CI crossed the line of null effect, so it is unlikely to be important. One further study reported a continuous measure of child behaviour that we could not include in the meta-analysis because there was no reported measure of variance ([CJF GUP 2000](#)). This study found a small, statistically non-significant effect in favour of control ([Analysis 8.3](#)). [SSP Recipients 2002](#) also reported a measure of adolescent mental health (CES-D ≥ 8/30). This provided moderate-quality evidence of a very small positive effect of the intervention (RR 0.97, 95% CI 0.87 to 1.08; N = 1417; [Analysis 8.2](#)), but as this effect was very small and the CI crossed the line of null effect, it is unlikely to be important.

Figure 14. Forest plot of comparison: 8 Time point 2 Child mental health, outcome: 8.1 Child behaviour problems continuous.



Footnotes

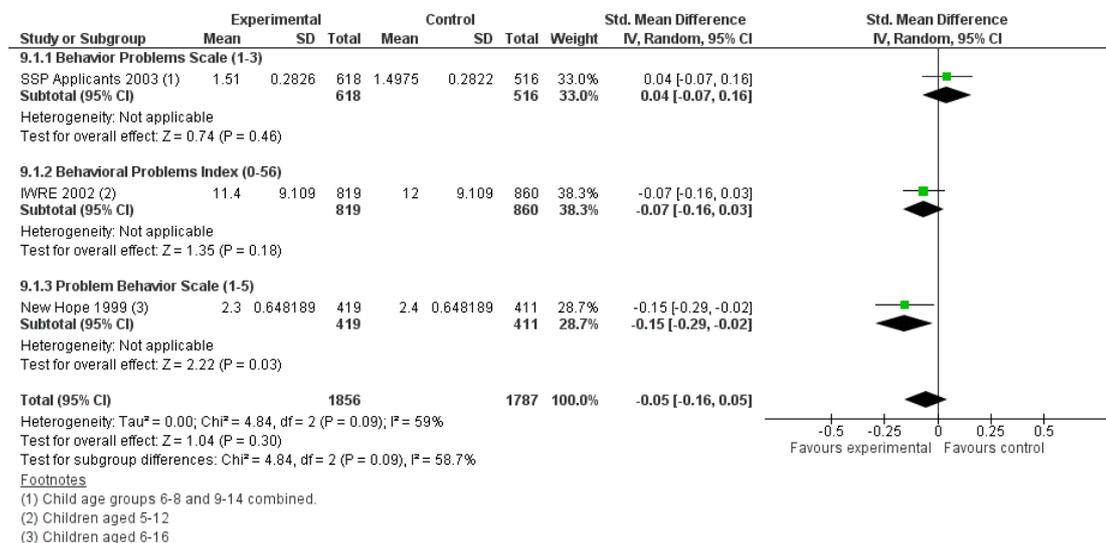
- (1) Children aged 5-12.
- (2) Children aged 5-12.
- (3) Children aged 5-12. Long term and recent applicants from MFIP and MFIP Incentives Only groups combined. Rural respondents excluded from analysis.
- (4) Child age subgroups 3-5 and 6-11 combined.
- (5) Children aged 4-18. 2 intervention groups in Ontario combined.

Time point 3 (T3): 49 to 72 months since randomisation

Five studies reported a continuous measure of child behaviour problems at T3 (IFIP 2002; IWRE 2002; New Hope 1999; SSP Applicants 2003; SSP Recipients 2002); however, we excluded two from the meta-analysis as no measures of variance were available (IFIP 2002; SSP Recipients 2002). In addition, NEWWS 2001 reported three subscores of the BPI but did not report the summary measure. Meta-analysis of the three remaining studies indicated a very small effect in favour of the intervention (SMD -0.05,

95% CI -0.16 to 0.05; N = 3643; Analysis 9.1; Figure 15). Heterogeneity was high (I² = 59%; P = 0.09), with SSP Applicants 2003's negative direction of effect clearly differing from the positive effects of the other studies. Heterogeneity dropped to 7% and the point estimate increased following removal of SSP Applicants 2003 from the analysis (SMD -0.10, 95% CI -0.18 to -0.01; N = 2509; 2 studies; Analysis 9.2). We could identify no plausible hypothesis to explain this heterogeneity. The evidence was of low quality due to this unexplained heterogeneity.

Figure 15. Forest plot of comparison: 9 Time point 3 Child mental health, outcome: 9.1 Child behaviour problems continuous.



We calculated effect sizes for the three measures reported by [NEWWS 2001](#). The intervention had a small positive effect on externalising behaviour, a very small positive effect on internalising behaviour and a very small negative effect on hyperactivity. [SSP Recipients 2002](#) reported no effects on the Behavior Problems Scale for children aged 5.5 to 7.5 years or 7.5 to 9.5 years ([Analysis 9.5](#)). Behaviour problems were very slightly higher among the [IFIP 2002](#) applicant intervention group (intervention 11.3/control 10.9, not statistically significant) and very slightly lower among the ongoing intervention group (intervention 11.8/control 12.0, not statistically significant; [Analysis 9.4](#)).

Summary

At T1 there was moderate-quality evidence of a small positive effect on problem behaviour in one study and of a very small negative effect in another study. This difference in effect was possibly related to study characteristics. Two further studies reported a modest negative effect, but the evidence was of low and very low quality. There was moderate-quality evidence of very small positive effects

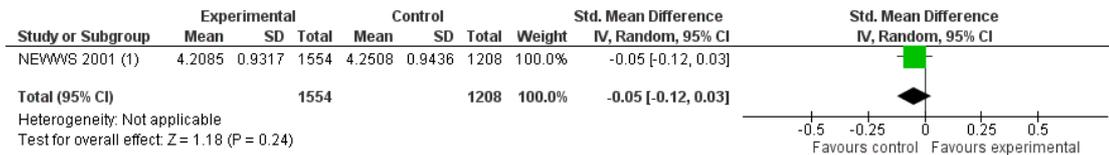
at T2. At T3, there was low-quality evidence of a very small positive effect, and conflicting evidence from three studies for which we could not calculate effect sizes. Since the evidence was primarily of moderate quality at T1 and T2, this was the overall assessment for both time points. Most evidence at T3 was of unclear quality, so this was the overall domain assessment.

Child physical health

Time point 1 (T1): 18 to 24 months since randomisation

Only one study reported a measure of child physical health at T1. [NEWWS 2001](#) reported evidence of moderate quality that the intervention had a very small negative effect on the general health rating of children in the intervention group (SMD -0.05, 95% CI -0.12 to 0.03; N = 2762; [Analysis 10.1](#); [Figure 16](#)). As this effect was very small and the CI crossed zero, it is unlikely to be important.

Figure 16. Forest plot of comparison: 10 Time point 1 Child physical health, outcome: 10.1 General health rating (1-5).



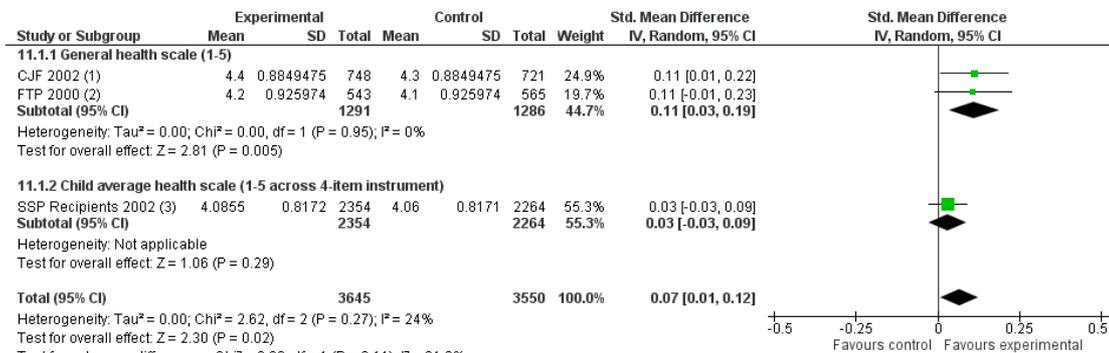
Footnotes

(1) Children aged 5-7. Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Time point 2 (T2): 25 to 48 months since randomisation

At T2, three studies reported continuous measures of child physical health (CJF GUP 2000; FTP 2000; SSP Recipients 2002). Meta-analysis found that the intervention had a very small positive impact on child physical health (SMD 0.07, 95% CI 0.01 to 0.12; N = 7195; Analysis 11.1; Figure 17). One study reported the percentage of the sample in good or excellent health (MFIP 2000); this showed a very small effect in favour of control (RR 0.98, 95% CI 0.93 to 1.02; N = 1900; Analysis 11.2). As this effect was very small and the CI crossed the line of null effect, it is unlikely to be important. Evidence for all outcomes was of moderate quality.

Figure 17. Forest plot of comparison: 11 Time point 2 Child physical health, outcome: 11.1 Child physical health continuous.



Footnotes

(1) Children aged 5-12
(2) Children aged 5-12
(3) Child age groups 3-5, 6-11, 12-18 combined.

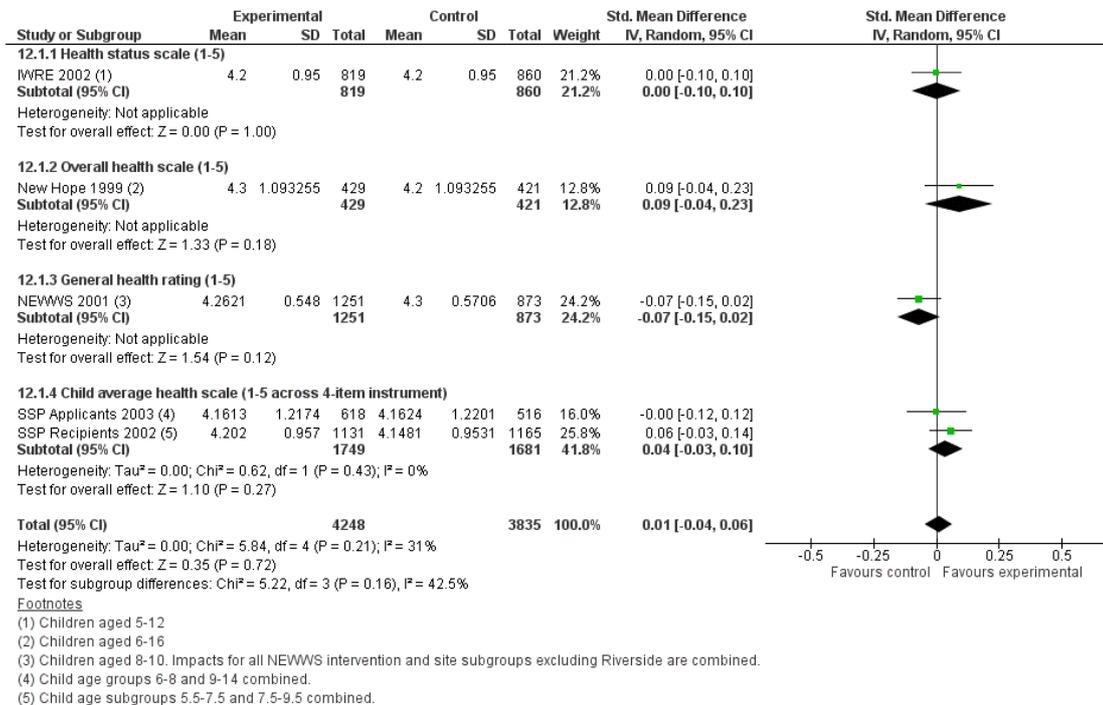
Time point 3 (T3): 49 to 72 months since randomisation

Six studies reported child physical health at T3. IWRE 2002, NEWWS 2001, New Hope 1999, SSP Applicants 2003 and SSP Recipients 2002 reported continuous measures, and IFIP 2002 reported the percentage of the sample in fair or poor health. No

measure of variance was available for SSP Recipients 2002. Since standard deviations for four studies reporting the same outcome were available, we imputed a standard deviation for SSP Recipients 2002 based on the average for the other four studies. Meta-analysis of the continuous outcomes showed moderate quality evidence of

a very small positive effect (SMD 0.01, 95% CI -0.04 to 0.06; N = 8083; 5 studies; [Analysis 12.1](#); [Figure 18](#)). Fair/poor health was higher among the [IFIP 2002](#) intervention group, but the quality of the evidence was low due to confidence intervals including both no effect and appreciable harm (RR 1.26, 95% CI 0.73 to 2.14; N = 1475; [Analysis 12.2](#)).

Figure 18. Forest plot of comparison: 12 Time point 3 Child physical health, outcome: 12.1 Child physical health continuous.



Summary

One study that reported child physical health at T1 found moderate-quality evidence of a very small negative effect. At T2, there was moderate-quality evidence of a very small positive effect on child physical health. One individual study reported no effect. There was moderate-quality evidence of no effect at T3, while low-quality evidence from one study showed a small negative effect. At each time point, most evidence on child physical health was of moderate quality.

Secondary outcomes

Employment

Time point 1 (T1): 18 to 24 months since randomisation

Three studies reported the proportion of the sample currently in employment at T1 ([CJF GUP 2000](#); [CJF Yale 2001](#); [NEWWS 2001](#)). There was moderate-quality evidence of a small positive effect among the intervention group (RR 1.22, 95% CI 1.12 to 1.32; N = 3381; [Analysis 13.1](#)). Meta-analysis of three studies that reported the proportion of the sample who had ever been employed since randomisation also found moderate-quality evidence of a very small positive effect on intervention group employment (RR 1.14, 95% CI 1.07 to 1.21; N = 3818; [Analysis 13.2](#); [CJF Yale](#)

2001; New Hope 1999; NEWWS 2001). Heterogeneity was over 50% ($I^2 = 53\%$, $P = 0.12$); however, we did not downgrade the evidence since all effects were in the same direction.

Time point 2 (T2): 25 to 48 months since randomisation

Two studies reported the proportion of respondents ever employed in the 36 months since randomisation (California GAIN 1994; MFIP 2000), and CJF 2002 and FTP 2000 reported the proportion ever employed in the year of the study. A meta-analysis provided moderate-quality evidence that the intervention had a very small positive effect on ever having been employed (RR 1.12, 95% CI 1.07 to 1.17; $N = 7422$; 4 studies; Analysis 14.1).

Three studies reported the proportion of the sample ever employed full-time since randomisation (California GAIN 1994; MFIP 2000; SSP Recipients 2002). A meta-analysis provided evidence of moderate quality indicating that the intervention had a small effect on employment (RR 1.20, 95% CI 1.05 to 1.37; $N = 9806$; Analysis 14.2). Heterogeneity was high ($I^2 = 83\%$; $P = 0.002$) because the impact of MFIP 2000 on employment was lower than that of the other studies (RR 1.05, 95% CI 0.92 to 1.18). Most of the MFIP 2000 sample were not subject to employment mandates and could receive earnings disregards for lower levels of employment participation, providing a plausible hypothesis to explain this heterogeneity. Excluding MFIP 2000 from the analysis resulted in an RR of 1.29 (CI 1.18 to 1.40; $N = 8275$; 2 studies) indicating that the intervention had a small effect on full-time employment (Analysis 14.3).

Evidence of moderate quality from two studies showed that intervention group participants were more likely to have been in part-time employment since randomisation than the control group, although the effect was very small (RR 1.14, 95% CI 1.04 to 1.25; $N = 4845$; California GAIN 1994; MFIP 2000), and the effect was weaker than the effect on full-time employment (Analysis 14.4). SSP Recipients 2002 reported the proportion of the sample currently in part-time employment, with moderate-quality evidence showing a small negative effect on the intervention group for being in part-time employment (RR 0.80, 95% CI 0.69 to 0.93; $N = 4852$; Analysis 14.4).

Time point 3 (T3): 49 to 72 months since randomisation

At T3, six studies reported the proportion of the sample currently in work (IFIP 2002; IWRE 2002; NEWWS 2001; SSP Applicants 2003; SSP Recipients 2002; UK ERA 2011). A meta-analysis indicated that there was a very small effect in favour of the intervention (RR 1.03, 95% CI 0.99 to 1.07; $N = 14,355$; Analysis 15.1). This evidence was of low quality due to high attrition in UK ERA 2011.

Six studies reported the proportion of the sample currently employed full-time (IFIP 2002; New Hope 1999; NEWWS 2001; SSP Applicants 2003; SSP Recipients 2002; UK ERA 2011),

and five reported the proportion currently employed part-time (IFIP 2002; NEWWS 2001; SSP Applicants 2003; SSP Recipients 2002; UK ERA 2011). The quality of evidence for full-time employment was low due to high attrition in UK ERA 2011. Meta-analysis indicated that the intervention had a very small effect on the proportion employed full-time (RR 1.05, 95% CI 1.00 to 1.12; $N = 13233$; Analysis 15.3). The meta-analysis of studies reporting part-time employment showed that the control group were more likely to work part-time, although the effect was very small (RR 0.93, 95% CI 0.85 to 1.01; $N = 12,676$; 5 studies; Analysis 15.4). The evidence was of low quality due to high attrition in UK ERA 2011. The effects in Analysis 15.1, Analysis 15.3 and Analysis 15.4 are unlikely to be important, as they are very small and the CI crosses the line of null effect.

Two studies reported the proportion who had ever worked in the fifth year of the study (New Hope 1999; UK ERA 2011), and one study reported the proportion who had ever worked between years 1 and 5 of the study (NEWWS 2001). Meta-analysis of the first two studies showed moderate-quality evidence that the effect of the intervention was close to zero (RR 1.01, 95% CI 0.96 to 1.06; $N = 2599$; Analysis 15.2). NEWWS 2001 found moderate-quality evidence of a very small effect in favour of the intervention group being employed between years 1 and 5 of the study (RR 1.12, 95% CI 1.08 to 1.17; $N = 2124$; Analysis 15.2).

Summary

Overall, the intervention showed very small to small positive effects on all measures of employment at T1 and T2 (ranging from RR 1.12 to 1.22). One study requiring full-time employment in order to receive an earnings supplement found that part-time employment was slightly lower in the intervention group. All evidence at T1 and T2 was of moderate quality. At T3 the effects on most measures of employment were close to zero, with similar proportions of the control group in employment at 49 to 72 months. One study reporting the proportion who had ever been employed in years 1 to 5 of the study found moderate-quality evidence of a very small effect in favour of the intervention. There was low-quality evidence that the intervention group were slightly less likely to be in part-time employment than the intervention group. Much of the evidence on employment at T3 was of low quality. At T1 and T2, we assessed most evidence on employment as moderate quality, therefore the domain level quality assessment was also moderate.

Income and earnings

Time point 1 (T1): 18 to 24 months since randomisation

There was evidence of moderate quality from two studies on income effects (New Hope 1999; NEWWS 2001). When we included both studies in a meta-analysis, there was no effect on in-

come. However, heterogeneity was very high ($I^2 = 80\%$; $P = 0.02$). The direction of effects varied, with [New Hope 1999](#) showing a small positive effect on income (SMD 0.11, 95% CI -0.04 to 0.25 ; $N = 744$) and [NEWWS 2001](#) finding a very small negative effect (SMD -0.08 , 95% CI -0.15 to -0.00 ; $N = 2762$; [Analysis 16.1](#)). There were a number of differences between these studies that may have contributed to this, including the lack of any earnings supplement or disregard over and above that received by the control group in the [NEWWS 2001](#) intervention.

[New Hope 1999](#) and [NEWWS 2001](#) also reported earnings at T1. No measure of variance was available for [NEWWS 2001](#) total earnings, so a meta-analysis was not possible. [New Hope 1999](#) reported a very small positive effect on intervention group annual earnings (SMD 0.07, 95% CI -0.08 to 0.21 ; $N = 744$; 1 study, moderate quality; [Analysis 16.2](#)). However, as this effect was very small and the CI crossed zero, it is unlikely to be important. Across all of the groups included in [NEWWS 2001](#), mean differences in monthly earnings ranged from USD 33 to USD 197 in favour of the intervention. Only two groups reported statistically significant differences (Atlanta HCD and Riverside LFA). Although earnings were slightly higher for the [NEWWS 2001](#) intervention group, income was lower ([Analysis 16.3](#)).

Time point 2 (T2): 25 to 48 months since randomisation

Four studies reported a measure of total income at T2 ([CJF 2002](#); [FTP 2000](#); [MFIP 2000](#); [SSP Recipients 2002](#)). A meta-analysis including all four studies provided evidence of low quality that income was higher among the intervention group (SMD 0.10, 95% CI 0.02 to 0.17; $N = 8934$; 4 studies; [Analysis 17.1](#)). Heterogeneity was high ($I^2 = 62\%$; $P = 0.05$) and visual inspection and a post hoc sensitivity analysis indicated this was due to [CJF 2002](#), which showed virtually no effect on income. A possible explanation for this is that earnings disregards had ceased by this point for most [CJF 2002](#) respondents. Both [MFIP 2000](#) and [SSP Recipients 2002](#) were still providing earnings supplements when T2 data were collected, which may account for their stronger positive effects on income. However, although [FTP 2000](#) had also ceased to supplement income, income was higher in the intervention group. With [CJF 2002](#) excluded from the analysis, the point estimate increased to SMD 0.14 (95% CI 0.09 to 0.18; $N = 7465$; 3 studies), indicating a small positive effect on income ([Analysis 17.2](#)).

Four studies reported impacts on earnings in the third year following randomisation ([CJF 2002](#); [California GAIN 1994](#); [MFIP 2000](#); [SSP Recipients 2002](#)). We calculated average earnings in year 4 for [FTP 2000](#). No measures of variance were available for [FTP 2000](#), [California GAIN 1994](#) or [MFIP 2000](#), so we could not include these in a meta-analysis. [CJF 2002](#) and [SSP Recipients 2002](#) provided moderate-quality evidence of a very small positive effect on earnings (SMD 0.09, 95% CI 0.04 to 0.13; $N = 6321$; 2 studies; [Analysis 17.3](#)). Mean annual earnings for the [MFIP 2000](#)

full-intervention groups ranged from USD 4061 to USD 6817 and for the [MFIP 2000](#) incentives-only groups from USD 3967 to USD 6270. Intervention group earnings exceeded those of control in three groups (long-term urban MFIP, long-term urban MFIP-IO, and long-term rural MFIP). However, control group earnings exceed those of intervention in the remaining three groups (recent urban MFIP, recent urban MFIP-IO and long-term rural MFIP). None of these effects reached statistical significance. [Analysis 17.4](#)). [California GAIN 1994](#) reported average weekly earnings only for respondents who were in employment, finding that the intervention group earned slightly more than the control group (intervention USD 204/control USD 190; [Analysis 17.5](#)). Study authors did not calculate statistical significance. For the [FTP 2000](#) intervention group, average year 3 earnings were USD 969 higher than control ([Analysis 17.6](#)). We could not calculate statistical significance.

Time point 3 (T3): 49 to 72 months since randomisation

At T3, six studies reported a measure of total income ([IFIP 2002](#); [IWRE 2002](#); [New Hope 1999](#); [NEWWS 2001](#); [SSP Applicants 2003](#); [SSP Recipients 2002](#)). We could not include [IFIP 2002](#) in meta-analysis as no measure of variance was available. The remaining studies provided moderate-quality evidence of almost no effect on income (SMD 0.01, 95% CI -0.04 to 0.06 ; $N = 11,735$; 5 studies; [Analysis 18.1](#)). In the [IFIP 2002](#) ongoing sample, intervention group income in the month prior to the survey exceeded that of control (intervention USD 1533/control USD 1451, not significant; [Analysis 18.2](#)). However in the [IFIP 2002](#) applicant group, control income exceeded that of the intervention group (Intervention USD 1857/Control USD 2110, $P < 0.05$; [Analysis 18.2](#)). Five studies were included in a meta-analysis of total earnings ([IWRE 2002](#); [New Hope 1999](#); [SSP Applicants 2003](#); [SSP Recipients 2002](#); [UK ERA 2011](#)), which indicated that earnings were higher among the intervention group, although the effect was very small (SMD 0.04, 95% CI 0.00 to 0.07; $N = 11,501$; [Analysis 18.3](#)). This evidence was of low quality due to [UK ERA 2011](#)'s high risk of attrition bias. [IFIP 2002](#) and [NEWWS 2001](#) also reported total earnings, but measures of variance were not available. In the two [IFIP 2002](#) groups, there were small differences in favour of control (ongoing group) and intervention (applicant group). Neither reached statistical significance ([Analysis 18.4](#)). All five experimental groups in the [NEWWS 2001](#) study reported that the intervention groups earned more than control in years 1 to 5 of the study. Only one difference was statistically significant (Riverside LFA intervention USD 17342/control USD 10805, $P = 0.01$; [Analysis 18.5](#)).

Summary

Of two studies that reported moderate-quality evidence of effects on income at T1, one study that provided an earnings supplement

found a small positive effect and another that did not find a very small negative effect. One study reported moderate-quality evidence of a very small positive effect on earnings. We could not calculate an effect size for the other study that reported slightly higher earnings among five intervention groups, which were statistically significant in two of the groups.

At T2 two meta-analyses provided moderate-quality evidence of a small positive effect on income and a very small positive effect on earnings among the intervention group. We could not calculate an effect size for two studies reporting earnings; one study found no statistically significant differences between intervention and control. Another reported very slightly higher earnings for the intervention group.

At T3, a meta-analysis of five studies found moderate-quality evidence of a very small positive effect on income. One further study for which we could not calculate an effect size showed a statistically significant effect in favour of control among one subgroup of respondents. There was moderate-quality evidence of a very small positive effect on earnings from five studies. We could not calculate effect sizes for two further studies; one found higher earnings among all five intervention groups, although the difference was statistically significant in just one. The other reported no statistically significant differences and slightly higher earnings in one control subgroup. Based on the majority of the evidence at T1 and T2, the domain level assessments of income and earnings were of moderate quality. At T3, the evidence was predominantly of low quality, which was reflected in the domain level assessment.

Welfare receipt

Time point 1 (T1): 18 to 24 months since randomisation

Only one study reported total welfare received at T1 ([New Hope 1999](#)), finding evidence of moderate quality that total welfare received was lower in the intervention group (SMD -0.10 , 95% CI -0.24 to 0.04 ; $N = 744$; 1 study), although the effect size was small ([Analysis 19.1](#)). Three studies reported the proportion of the sample in receipt of welfare at T1 ([New Hope 1999](#); [NEWWS 2001](#); [Ontario 2001](#)). There was a very small effect in favour of the intervention group (RR 0.88 , 95% CI 0.84 to 0.92 ; $N = 3714$), and the evidence was of moderate quality ([Analysis 19.2](#)).

Time point 2 (T2): 25 to 48 months since randomisation

At T2, four studies reported total welfare received ([CJF 2002](#); [FTP 2000](#); [MFIP 2000](#); [SSP Recipients 2002](#)). Combining these in a meta-analysis resulted in very high heterogeneity ($I^2 = 98\%$; $P < 0.001$). Inspection of the forest plot showed that [MFIP 2000](#) had a negative direction of effect whilst the remaining three were positive ([MFIP 2000](#): SMD 0.33 , 95% CI 0.22 to 0.43 ; $N = 1531$;

[Analysis 20.1](#)). This was possibly due to the generous earnings disregards [MFIP 2000](#) provided to the intervention group throughout the study, which allowed them to receive welfare benefits while working at higher levels than the control group. Therefore we conducted a post hoc sensitivity analysis excluding [MFIP 2000](#). This provided moderate-quality evidence of a modest positive effect on total welfare received among the intervention group (SMD -0.24 , 95% CI -0.33 to -0.15 ; $N = 7429$; 3 studies; [Analysis 20.2](#)). Heterogeneity was still high ($I^2 = 69\%$; $P = 0.04$) due to a stronger positive effect of [FTP 2000](#) on total welfare received. Although we could not identify any plausible explanation, we did not downgrade the quality of evidence because all effects were in the same direction.

[Ontario 2001](#) and [SSP Recipients 2002](#) reported the proportion of the sample in receipt of welfare at T2. This indicated that fewer participants in the intervention group were in receipt of welfare (RR 0.87 , 95% CI 0.83 to 0.91 ; $N = 5210$; [Analysis 20.3](#)). The evidence was of moderate quality.

Time point 3 (T3) (49 to 72 months since randomisation)

Seven studies reported total welfare received at T3 ([IFIP 2002](#); [IWRE 2002](#); [New Hope 1999](#); [NEWWS 2001](#); [SSP Applicants 2003](#); [SSP Recipients 2002](#); [UK ERA 2011](#)). We could not include [IFIP 2002](#) and [IWRE 2002](#) in the meta-analysis as no measures of variance were available. The measure reported by [NEWWS 2001](#) differed from that of the other studies (total welfare received in years 1 to 5 rather than in the year prior to data collection), and we therefore analysed it separately.

Meta-analysis of [New Hope 1999](#), [SSP Applicants 2003](#), [SSP Recipients 2002](#) and [UK ERA 2011](#) showed low-quality evidence of a very small positive effect on total welfare received (SMD -0.06 , 95% CI -0.11 to -0.00 ; $N = 9822$; [Analysis 21.1](#)). The evidence was of low quality due to high risk of bias in [UK ERA 2011](#). The effect of [NEWWS 2001](#) on welfare receipt over the four intervention years was considerably stronger (SMD -0.47 , 95% CI -0.56 to -0.38 ; $N = 2124$), possibly because [NEWWS 2001](#) maintained intervention and control conditions for the duration of the study and did not provide the intervention group with earnings disregards at any time ([Analysis 21.2](#)). This evidence was of moderate quality. [IWRE 2002](#) also maintained the AFDC regime for the control group, and while no effect size could be calculated, the difference in welfare payments would appear to be large in absolute terms (annualised welfare received: intervention USD 685 /control USD 1082 ; $P < 0.01$; [Analysis 21.3](#)). In the [IFIP 2002](#) study, where all respondents became subject to TANF after 3.5 years, there were small differences between intervention and control groups. The difference in monthly welfare received was statistically significant for the [IFIP 2002](#) applicants' sample, with the intervention group receiving higher welfare payments than control (intervention USD 56 /control USD 34 , $P < 0.05$; [Analysis 21.4](#)).

Six studies reported the proportion of the sample in receipt of welfare at T3 (IFIP 2002; IWRE 2002; New Hope 1999; SSP Applicants 2003; SSP Recipients 2002; UK ERA 2011). There was a very small effect in favour of the intervention (RR 0.92, 95% CI 0.86 to 0.99; N = 12,976), although the evidence was of low quality due to systematic attrition in UK ERA 2011 (Analysis 21.5).

Summary

One study reporting effects on total welfare received at T1 showed moderate-quality evidence of a small effect in favour of the intervention (i.e. the intervention group received less welfare than control.) There was also moderate-quality evidence of a very small positive effect on the proportion of the intervention group in receipt of welfare. At T2, there was evidence of a modest positive effect on total welfare received, which was of moderate quality when we excluded one study that had a modest negative impact on total welfare. There was also moderate-quality evidence of a very small positive effect on the proportion of the sample in receipt of welfare.

There was low-quality evidence of a very small positive effect on welfare received in the previous year at T3. One study reported a modest positive effect (moderate quality) on welfare received between years 1 and 5. We could not calculate effect sizes for the amount of welfare received in two further studies. One reported that the intervention group received very slightly more welfare than control, while the other reported a large absolute difference in favour of the intervention. There was low-quality evidence of a very small positive effect on the proportion in receipt of welfare at T3. The majority of the evidence at T1 and T2 was of moderate quality, therefore these domains were assessed as such. At T3, the evidence was predominantly of low quality.

Health insurance

Time point 1 (T1): 18 to 24 months since randomisation

Three studies reported a measure of adult health insurance at T1. CJF GUP 2000 and CJF Yale 2001 reported the proportion of the sample with Medicaid at the time of the survey, New Hope 1999 reported the proportion of the sample that had ever had Medicaid since randomisation, and NEWWS 2001 reported the proportion who ever had health insurance provided by their employer since randomisation. Findings varied across studies: CJF GUP 2000 and CJF Yale 2001 found a very small effect in favour of the intervention (RR 1.16, 95% CI 1.08 to 1.25; N = 606); New Hope 1999 found a very small effect (RR 1.09, 95% CI 1.03 to 1.16; N = 590); and NEWWS 2001 a small effect (RR 1.40, 95% CI 1.16 to 1.69; N = 2762) in favour of the intervention (Analysis 22.1). Only one study reported the proportion of focal children ever having health insurance since randomisation (NEWWS 2001),

finding a very small negative effect for the intervention (RR 0.99, 95% CI 0.96 to 1.01; N = 2762; Analysis 22.2). All of the evidence was of moderate quality.

Time point 2 (T2): 25 to 48 months since randomisation

At T2, one study reported the number of adults with Medicaid or other health insurance within 2 to 3 years of randomisation (California GAIN 1994), and one study reported the proportion of children having any health insurance continuously in the previous 36 months (MFIP 2000).

California GAIN 1994 found a very small effect in favour of control (RR 0.97, 95% CI 0.93 to 1.01; N = 2193), while MFIP 2000 found a very small effect in favour of the intervention (RR 1.16, 95% CI 1.08 to 1.24; N = 1531; ; Analysis 23.1). The evidence was of moderate quality in both cases, but the result for California GAIN 1994 is unlikely to be important, as the effect was very small and the CI crossed the line of null effect. CJF GUP 2000 reported the percentage of adult respondents with health insurance (intervention 88%/control 82%) and the percentage of children covered by Connecticut's state programme for children (intervention 95%/control 76%), but it was not possible to calculate effect sizes as studies did not report group Ns (data not entered into RevMan).

Time point 3 (T3): 49 to 72 months since randomisation

At T3 three studies reported four measures of child and family health insurance (IFIP 2002; New Hope 1999; NEWWS 2001). IFIP 2002 and NEWWS 2001 reported the proportion of cases where the whole family was covered by Medicaid or private insurance, finding a very small effect in favour of control (RR 0.98, 95% CI 0.92 to 1.05; N = 3599; Analysis 24.1). The evidence was of low quality due to high unexplained heterogeneity ($I^2 = 76%$; $P < 0.04$), with NEWWS 2001 favouring control and IFIP 2002 favouring the intervention, although both effects were very small. New Hope 1999 reported the proportion of respondents with any type of health insurance and the proportion of respondents whose focal child was insured. These provided moderate-quality evidence of very small effects in favour of control. However, in all cases the effects are unlikely to be important as they are very small and the CI crosses the line of null effect.

Summary

At T1 there were very small positive effects on adult health insurance and no effect on child health insurance. At T2, one study found a very small effect in favour of control, while one other found a very small effect in favour of the intervention. Evidence from T1 and T2 was of moderate quality. Effects on health insurance were very small at T3. The evidence at T1 and T2 was all assessed as moderate quality; therefore both domains were assigned a grade of moderate. At T3, most evidence was of low quality.

Data not included in the synthesis

New Hope at 96 months

[New Hope 1999](#) reported data at 96 months for a limited set of outcomes. Since there was only one study that reported partial data at such a long follow-up, we analysed this separately from the main synthesis. By 96 months postrandomisation, the intervention had ended five years prior, and there were few differences between intervention and control in adult CES-D score, adult physical health, or the internalising and externalising subscores of the Problem Behavior Scale (PBS) among girls. Boys in the intervention group fared slightly better in terms of the PBS subscores, with effect sizes of -0.15 for the externalising ($P = 0.12$) and internalising ($P = 0.15$) subscores. Notably, maternal CES-D scores

for both the intervention and control groups were higher than T3 estimates, and over the threshold for risk of depression (intervention 17.36/control 17.33; [Analysis 25.1](#)).

Connecticut Jobs First and Florida Transition Programme at 15 to 18 years

Analyses of linked mortality data for [CJF 2002](#) respondents (15 years postrandomisation) and [FTP 2000](#) respondents (17 to 18 years postrandomisation) found that despite increases in employment, there was a very small, statistically non-significant increase in mortality among the [CJF 2002](#) intervention group (hazard ratio 1.13, 95% CI 0.87 to 1.46) and a small statistically non-significant increase in the [FTP 2000](#) intervention group (hazard ratio 1.26, 95% CI 0.96 to 1.66; data not entered into RevMan).

ADDITIONAL SUMMARY OF FINDINGS *[Explanation]*

Welfare to work for lone parents. Child health outcomes

Summaries of all outcomes reported in the review are provided in [Web appendix 2](#)

Patient or population: lone parents

Settings: high-income countries

Intervention: welfare to work

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Welfare to work				
T1 child mental health Behavioural Problems Index (mean score) ^a	-	The mean T1 child mental health in the intervention groups was 0.01 standard deviations higher (0.06 lower to 0.09 higher)	-	2762 (1 study)	⊕⊕⊕○ Moderate ^b	Very small negative effect
T2 child mental health Behavior Problems Index, Behavior Problems Scale, Survey Diagnostic Instrument Conduct Disorder (mean score) ^a	-	The mean T2 child mental health in the intervention groups was 0.04 standard deviations lower (0.08 lower to 0.01 higher)	-	7560 (5 studies)	⊕⊕⊕○ Moderate ^b	Very small positive effect
T3 child mental health Behaviour Problems Index, Behaviour Problems Scale, Problem Behaviour Scale (mean score) ^a	-	The mean T3 child mental health in the intervention groups was 0.05 standard deviations lower (0.16 lower to 0.05	-	3643 (3 studies)	⊕⊕○○ Low ^{b,c}	Very small positive effect

		higher)				
T1 child health (mother reported) 5-point scale (mean score) ^d	-	The mean T1 child health (mother reported) in the intervention groups was 0.05 standard deviations lower (0.12 lower to 0.03 higher)	-	2762 (1 study)	⊕⊕⊕○ Moderate^b	Very small negative effect
T2 child health (mother reported) 5 point scale, 4 item instrument (mean score) ^d	-	The mean T2 child health (mother reported) in the intervention groups was 0.07 standard deviations higher (0.01 to 0.12 higher)	-	7195 (3 studies)	⊕⊕⊕○ Moderate^b	Very small positive effect
T3 child health (mother reported) 5 point scale, 4 item instrument (mean score) ^d	-	The mean T3 child health (mother reported) in the intervention groups was 0.01 standard deviations lower (0.04 lower to 0.06 higher)	-	8083 (5 studies)	⊕⊕⊕○ Moderate^b	Very small positive effect

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval

Very small effect: unlikely to be substantively important.

Small effect: may be substantively important.

Modest effect: likely to be substantively important.

See [Table 5](#) for further explanation

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

^a Better indicated by lower values.

^b All studies were downgraded due to high risk of bias in at least one domain.

^c Heterogeneity over 50% and no plausible explanation identified.

^d Better indicated by higher values.

DISCUSSION

Summary of main results

This review identified 12 RCTs evaluating the effects of participating in welfare-to-work (WtW) interventions on the health of lone parents and their children. The studies we identified were of highly complex, multi-component and often multi-site interventions. We were able to conduct meta-analyses for most outcomes and to calculate standardised effect sizes for much of the remainder. We synthesised the data across three time points (18 to 24 months, 25 to 48 months and 49 to 72 months) and eight outcome domains: maternal mental health, maternal physical health, child mental health, child physical health, employment, income, welfare receipt and health insurance. However, there were limited numbers of studies in each meta-analysis, and fewer in each predefined subgroup, precluding statistical investigation of the influence of study characteristics via subgroup analysis. We were therefore restricted to our planned primary analyses, which included data from all studies. The typology we set out to investigate using subgroup analysis proved less useful than anticipated, as interventions using apparently different approaches were often similar in terms of content and methods.

Eight of the included studies were conducted in the USA, three in Canada and one in the United Kingdom. The Canadian provinces and US states in which the evaluations took place were diverse in terms of geography, demographics and local labour markets. Most evaluations began between 1991 and 1996. [California GAIN 1994](#) began in 1986 and [UK ERA 2011](#) in 2003. All studies were at high risk of bias in at least one domain, although when we incorporated risk of bias and other factors in the GRADE assessment of quality of evidence, most evidence was of moderate quality, implying that further research “is likely to have an important impact on our confidence in the estimate of effect and may change the estimate” ([GRADEpro GDT 2014](#)).

Overall, most effects in this review fell below the conventionally accepted threshold for a small effect. However, as discussed in [Effects of interventions](#), there is some debate regarding the importance of very small effect sizes and suggestions that effect sizes above SMD 0.10 are potentially important when interventions may affect a large population ([Coe 2002](#)). Nonetheless, the overwhelming majority of effects on health outcomes in this review were below this size, suggesting that there are unlikely to be tangible impacts on health. While the direction of effect is mostly positive, there is moderate-quality evidence that all but two effect sizes were very small. There is moderate-quality evidence of a small positive effect on child mental health from one study at T1. There is low-quality evidence from single studies of small negative effects on maternal mental health and child mental health at T1, and on maternal mental health and child mental health at T3. There is some suggestion that the effects on maternal mental health varied over time, with a tendency toward negative impacts at T1, no effect at T2 and positive impacts at T3. It is possible that

intervention group participants experienced higher stress levels at T1, either because they were actively involved in the intervention at that time, due to a period of adjusting to WtW requirements, or because their children were likely to be younger. However, as the effects are so small, any hypotheses regarding this difference in effects are necessarily speculative.

Most economic outcomes provided moderate-quality evidence of very small effects. There was moderate-quality evidence of small positive effects on income and some measures of employment at T1 and T2, and modest positive effects on total welfare received at T2 and in one study reporting at T3 (although a meta-analysis of four studies at T3 found a very small effect). Many economic outcomes at T2 and T3 are likely to have been affected by direct or indirect contamination, which would have led to underestimated impacts. How this might have affected health outcomes is unclear. Although these analyses included interventions specifically designed to increase income and promote labour market advancement, effects on these outcomes were limited. In spite of higher employment and earnings, effects on income at T1 and T2 were not always positive. In addition, there is evidence that welfare reform led to an increase in lone parents' expenditure on items such as travel and food consumed away from the home, suggesting that any increase in total income may not have boosted respondents' disposable income ([Waldfogel 2007](#)). At 5 to 6 year follow-ups, effects on employment and income were very small, although much of this evidence was of low or very low quality. In some studies very small effects were due to control groups voluntarily entering employment at a similar rate to intervention groups.

On this basis, we conclude that WtW interventions are unlikely to improve the health of lone parents and their children. There is some evidence to suggest that there may be small adverse effects on health in some circumstances. Effects on employment and income were perhaps smaller than policy makers might hope or expect. Since economic impacts are hypothesised to mediate health impacts, it is possible that effects on health were very small due to the small economic impacts. These very small effects on maternal and child mental health need to be interpreted against a background of very poor mental health for intervention and control groups at all time points. The control group risk of depression at any time point ranged from 14.4% to 40.7%, compared to an average within-year prevalence of 6.7% for women in the US general population ([Pratt 2008](#)). Comparison of effects on income across studies is complicated by variations in tax and transfer systems in different state jurisdictions. However, overall it is clear that effects on income were unlikely to have important substantive effects. Indeed, although we did not extract data on poverty, most studies noted that poverty remained high for all groups.

As noted above, there were insufficient studies possessing similar characteristics to permit statistical subgroup analyses. We were therefore unable to investigate the influence of the intervention ethos (anti-poverty/caseload reduction), approach (labour force attachment/human capital development; fully explained in

Description of the intervention) or population characteristics. Similarly, we could not statistically investigate other intervention characteristics such as whether the intervention was voluntary or mandatory, or whether income was supplemented in any way. However, we used post hoc sensitivity analyses where there was high heterogeneity to generate hypotheses regarding the influence of study or intervention characteristics on effect estimates (Haidich 2010). These post hoc hypotheses suggested that voluntary interventions that lead to increased income may have positive effects on child mental health, while mandatory interventions that increase employment but do not improve income may lead to negative impacts on maternal and child health.

Overall completeness and applicability of evidence

This review has addressed the questions of the health and economic impacts of welfare-to-work interventions for lone parents and their children. However, the evidence is limited geographically and temporally, in that most studies took place in North America during a period of economic expansion in the 1990s. We were unable to investigate the role of economic outcomes as mediators of health impacts due to the small number of studies reporting at each time point.

The applicability of the findings from the included studies to other contexts is also debatable given that the USA lacks a system of universal health care (although most respondents were eligible for Medicaid), and most of the US and Canadian studies were from the 1990s. On the other hand, both the USA and Canada, like other countries currently implementing active labour market policies for lone parents, are high-income countries with developed social welfare systems. Furthermore, while most studies are from only two countries, these are not homogeneous, and economic and political contexts varied across the states and provinces in which studies were conducted. Generalisability may be enhanced by such diversity of contexts (Armstrong 2011).

In terms of transferability, the evaluations were conducted at scale, in real-world settings, indicating that they are practically feasible. Various forms of WtW policies and interventions for lone parents have been or are being implemented across the developed world. However, it is important to be aware that the welfare-to-work interventions currently implemented internationally differ from those evaluated in these studies in many ways. The age of youngest child at which lone parents are required to be available for work varies internationally but is rarely as young as that tested in these studies (often as young as six months). Many interventions do not provide earnings disregards, extensive case management, training opportunities or childcare subsidies. Welfare reform as implemented in the USA also had many important differences from the interventions reviewed here. These include the universal implementation of lifetime limits on welfare receipt (which featured in only three studies reviewed here) and the use of diversion

policies to prevent eligible lone parents from claiming welfare at all.

The included interventions consisted of multiple components in varying combinations. Individual participants did not receive every intervention component, but few studies reported data on uptake of discrete components, not to mention duration or intensity. Although most of these reports provided a great deal of detail on intervention content, information on some components (e.g. training) could be limited. Even if they did provide such data, extraction and analysis would be extremely challenging. In the absence of such information, however, it is not possible to investigate the influence of intervention uptake or individual components. However, diversity of components and adherence thereof may enhance applicability (Armstrong 2011). Although some studies reported cost-benefit analyses, extraction and interpretation of these was beyond the scope of this review, limiting our ability to draw conclusions based on intervention cost relative to very small changes in health. However, Greenberg et al synthesised cost-benefit analyses of 28 North American WtW RCTs, including many of the studies included in this review. They reported mixed results from different programme designs, but overall found that gains in employment and earnings did not generally persist beyond 5 years. This was due to the time-limited nature of programme services, and the tendency of control group members to find employment independently. Greenberg et al also note that cost-benefit analyses do not account for non-monetary costs such as loss of participants' time, or labour market displacement effects potentially leading to greater difficulty in finding work for non-participants.

Many studies reported implementation issues that had the potential to affect internal validity. For instance, lack of resources, staff attitudes to welfare reform, cultural differences between sites and caseloads were all mentioned as factors that influenced the nature of the intervention delivered. A number of interventions altered in approach from HCD to LFA or vice versa during the evaluations. In addition, the intervention implemented did not always accord with the explicit ethos or approach. Local economic, social and political contexts also varied. We were unable to statistically investigate the role of implementation issues due to small numbers of studies sharing given characteristics. Implementation and uptake issues, while problematic for internal validity, can be seen to increase external validity, as effects more closely resemble the likely impacts of an intervention when implemented in a real-world setting (Armstrong 2011; Gartlehner 2006). The evidence is that the US-wide implementation of WtW was far from uniform, and the resourcing of interventions was not commensurate with that provided for the evaluations (Muennig 2015). The role of broader economic and political contexts is discussed below.

Population characteristics

The intervention was compulsory in 7 of the 12 included studies, and participants were recruited from the existing population of lone parent welfare claimants. It is very likely that sample popu-

lations reflected the target population of the intervention in these cases. However, recruitment processes may have reduced generalisability as some claimants did not attend study orientation events or found work before the study began; for instance in [NEWWS 2001](#), only 66% of those invited to orientation events actually attended. In five of the included studies, participation was voluntary. It is likely that this also influenced generalisability as only those who were more motivated to gain employment would volunteer to participate. In addition, not all of those who volunteered to participate and were randomised to the intervention took up the available services; only 27% of those randomised to treatment in [SSP Applicants 2003](#) took up the offer of generous earnings supplements. In [New Hope 1999](#), study workers recruited participants in community settings, possibly leading to a less representative population. On the other hand, in both cases this may have led to a more realistic approximation of how the interventions might work outside the trial context. In a number of studies, some proportion of the sample were married or living with a partner at randomisation. Although some studies reported data on family formation, we did not extract these, as this was not an outcome considered in the review. However, we know that lone parenthood is frequently not a static state, and it is likely that changes in partnership status among the participants again render them more representative of the wider population of lone parents.

Political and economic context

All but one of the included studies took place during a period of increasing public and political opposition to welfare payments and well-publicised restrictions to benefit entitlements. This may have encouraged those closest to the labour market to enter employment independently, leaving more disadvantaged welfare claimants on the welfare rolls, although a number of studies made efforts to ensure the control groups were aware of their status. The nature of the population receiving welfare would also have been influenced by the prevailing economic contexts. In a buoyant labour market, those who are more job-ready are likely to find employment independently, leaving the more disadvantaged to participate in the study ([NEWWS 2001](#)). In a period of economic contraction, even the job-ready would struggle to find work. All of the included studies were affected by one or more of these factors, but the seven US studies conducted after the implementation of welfare reform in 1996 were the most affected. The economy expanded rapidly during this period. In addition, the Earned Income Tax Credit (EITC), which supplements the incomes of low-income workers, was greatly expanded at this time, increasing the attractiveness of employment for lone parents. All of these factors are likely to have decreased the potential for positive effects on economic outcomes. During this period there were large decreases in welfare receipt among lone parents in the US; the total caseload declined from 5 million to 2.1 million between 1994 and 2000 ([Grogger 2003a](#)), and employment rates increased rapidly, from 56% to 76% of single mothers between 1995 and 1999 ([Pavetti 2015](#)). Analyses of

observational evidence suggest that the flourishing economy and the expansion of EITC, rather than welfare reform, were responsible for most of the decline in welfare receipt ([Grogger 2003b](#)). The EITC and the economic boom would have affected both intervention and control groups, while the control groups would have been affected by contamination to some extent. Some studies reported that control group respondents left welfare voluntarily in large numbers as a result of the economic conditions, leading to small impacts on employment in the studies. Given that the contribution of welfare reform to increased employment in the general lone parent population (who were exposed to the intervention) is considered relatively small, it seems likely that experiences of welfare reform via contamination were responsible for only a small proportion of the control groups' increase in employment.

Quality of the evidence

The review includes 12 RCTs, conducted in a variety of settings. Numbers of participants in a given analysis range from 148 to 14,355. Most studies included in this review were large, well-conducted RCTs of a highly complex social intervention that aimed to influence a number of upstream socioeconomic determinants of health. They provided experimental evidence of the medium- to long-term health effects of a policy-level intervention. As such, they represent a body of evidence of unusual quality in the field of public health. However, as with any body of evidence, there are some methodological issues that are discussed below.

Using the GRADE approach to assessment, the highest quality attained by any of the evidence was moderate, due to every study being at high risk of bias in at least one domain. Due to the high number of outcome measures within each time point and domain, we developed a domain level GRADE assessment (see [Risk of bias in included studies](#)). Using this assessment, we judged that 9 of 12 health domains provided moderate-quality evidence, while 2 domains contributed evidence of low quality and 1 domain of unclear quality. We judged 8 of 12 economic domains to be of moderate quality and the remaining 4 as low quality. It is normally expected that evidence from public health interventions will be of low or very low quality ([Burford 2012](#)). There were only two studies in which it was unclear whether random sequence generation was adequate, and three in which allocation concealment was unclear. The most common reasons for high risk of bias were contamination, failure to blind outcome assessors and selective outcome reporting (see [Figure 5](#) and [Figure 6](#)).

Contamination is not deemed to be as serious as other sources of bias since it is likely to lead to underestimated impacts ([Higgins 2011a](#)). It is difficult to know how much the estimates might have been affected by direct contamination arising from exposure of the control group to the intervention, although it seems that only a small proportion of the control group was directly exposed in most studies. Impacts on economic outcomes were stronger in two studies that maintained intervention and control conditions at 49

to 72 months, but most of the effects were still very small, and this may have been due to other differences between the studies. All but one of the studies was affected by indirect contamination arising from changes in attitudes to welfare and publicity surrounding the introduction of welfare reforms, although efforts were made to maintain experimental-control distinctions in a number of these. Again, it is difficult to know how much this might have affected estimates of economic impacts or health outcomes.

Outcome assessors were not blinded in five studies, and blinding was unclear in a further five. Evidence suggests that this is likely to lead to overestimated impacts (Hróbjartsson 2012). There was evidence of selective outcome reporting in six studies reporting results for multiple subgroups or time points. One study reported maternal mental health at T1 but not at T3. No protocol was available for the remainder of studies.

Some evidence was of low or very low quality. With respect to health outcomes, evidence was usually downgraded due to imprecision caused by low event rates. Very high risk of bias in UK ERA 2011 led to some health outcomes and a number of economic outcomes being downgraded at T3. However, excluding UK ERA 2011 from analyses of economic impacts did not change the effect estimates.

Potential biases in the review process

Despite including a very wide range of terms in our electronic searches, we identified more publications via handsearching (14/23) than electronically. Closer inspection of search results indicated that our searches did not identify some publications that were in databases because the population (i.e. lone parents) was rarely specified in titles, keywords or abstracts. However, a feature of this body of evidence is that evaluations of welfare-to-work interventions were conducted at state level by large, well-known research organisations with comprehensive websites. As described in [Searching other resources](#), we put considerable effort into identifying publications listed on such websites. Further, RCTs of social interventions are conducted extremely rarely outside of North America. Thus, we are reasonably confident that we identified all relevant studies.

In contrast to the many public health and social intervention evaluations that lack sufficient detail on intervention content and components (Hoffman 2014), most studies included in this review reported such information in extensive detail and frequently in extremely large reports designed primarily for policy makers. While of course it is welcome to be able to describe interventions in some detail, the level of detail provided was often overwhelming in the context of a systematic review. In addition, when this level of detail is available it becomes apparent that any one component, which initially seems relatively straightforward, can in fact have multiple variations across studies. This raises the question of what level of detail the review author should attempt to capture, and indeed whether any of the components can actually be seen to be

the same thing at all. However, as Petticrew 2013 have argued, it is not essential to describe every level of complexity in a given intervention, and it is useful to answer questions regarding the average effects of interventions with the same underlying purpose on the outcomes of interest. As Petticrew 2013 also observed, even so-called 'simple' interventions are likely to be much more complex than is usually acknowledged. Arguably such complexity is often masked by scant reporting of interventions. As discussed previously, it was not possible to use statistical subgroup analyses to investigate these aspects of complexity here. It may, however, be appropriate to do so in a future narrative synthesis.

Agreements and disagreements with other studies or reviews

We are not aware of any other reviews or meta-analyses of welfare-to-work interventions that include maternal health outcomes. Grogger 2002 conducted meta-analysis of data on child health outcomes from US WtW evaluations, including eight of the studies included in this review (CJF 2002; FTP 2000; IFIP 2002; MFIP 2000; New Hope 1999; NEWWS 2001; SSP Applicants 2003; SSP Recipients 2002; search methods were unclear). Grogger 2002 reported small favourable and unfavourable health effects of welfare reform. Most of the favourable health impacts were associated with increased income, but the authors suggest that different intervention components may have countervailing effects, such that effect estimates were very small.

Greenberg 2005 conducted a meta-analysis of child health data from North American WtW evaluations, including five of the studies included in this review (CJF 2002, FTP 2000, IWRE 2002, NEWWS 2001, MFIP 2000; the studies were identified in an existing database of WtW studies). They describe their findings as highly tentative but, contrary to Grogger 2002, they suggest that increased income was not associated with better child health. However, they argue that impacts on income were so small that they were unlikely to influence health outcomes. The review authors identified financial incentives and time limits as intervention components that appeared to have a negative impact on child mental health.

Lucas 2008 conducted a Cochrane Review of the impact of financial benefits on child health and social outcomes. Most of the included studies were of North American welfare-to-work interventions, including CJF 2002, FTP 2000, IFIP 2002, MFIP 2000, New Hope 1999 and SSP. The review came to no overall conclusion on the health impacts of the intervention due to inconsistent effects. The authors noted that effects on income were very small and again suggested that this may explain the lack of effects on health.

A number of studies have also used observational data, including natural experiments using a difference-in-difference (DiD) approach. There has not been a systematic review of this evidence, but Grogger 2002 also included DiD studies, and a more recent

narrative review by [Ziliak 2015](#) included DiD and other robust econometric studies of welfare reform in the USA. The findings of [Grogger 2002](#) in relation to economic outcomes are consistent with those described above for RCTs, but they did not find any econometric studies that reported any of the child health outcomes included in this review.

[Ziliak 2015](#) found that studies analysing adult and child health outcomes were scarce and provided conflicting evidence. Based on the limited available studies, [Ziliak 2015](#) reported that effects on maternal health outcomes were mixed but noted there was some evidence of negative effects on black and Hispanic women. Studies reporting child health outcomes were also mixed, but there was some evidence of negative effects on breastfeeding, birthweight, and child maltreatment from studies using the DiD approach to analyse national survey data. In terms of economic outcomes, [Ziliak 2015](#) concluded that while employment and earnings rose, incomes did not, and poverty increased over the longer term. A more recent DiD study of US cross-sectional data also reported small negative impacts on several measures of lone mothers' health, including days of good mental health and health behaviours, although estimates crossed the line of null effect in several cases ([Basu 2016](#)).

A systematic review of qualitative studies conducted by several of the authors of the present review found 16 studies conducted in five high-income countries ([Campbell 2016](#)). The findings of the qualitative review indicated that lone parents connected WtW participation with increased stress, depression, anxiety and fatigue, apparently due to conflict between WtW and parental responsibilities, and loss of control over key life decisions. There were reports of more positive impacts for some lone parents. More recent qualitative research has been conducted in the UK since the implementation of employment requirements for parents of much younger children; [Johnsen 2016](#) found evidence of extreme anxiety caused by employment requirements and sanctions, in addition to negative physical health effects resulting from insufficient nutrition.

AUTHORS' CONCLUSIONS

Implications for practice

The evidence in this review suggests that interventions aiming to increase employment among lone parents, either by mandating employment in combination with sanctions and earnings disregards, or by offering additional benefits to those who gain employment voluntarily, are likely to have impacts on health which are generally positive but of a magnitude unlikely to have any tangible effects. Effects on employment and income are likely to be small to very small in the medium to long term. There is some evidence to suggest that small negative health impacts are possible in some circumstances. Even where generous financial assistance was provided, effects on income were small.

The ongoing very high levels of depression risk in both intervention and control groups suggest that, although employment increased for both groups, conditions continued to be very challenging for all respondents, and that these interventions did little to address these issues. Given that many of the interventions failed to reduce poverty, it is perhaps not surprising that there was little impact on mental health. Consideration should be given to policies that aim to address the determinants of the high burden of mental ill health among lone parents. Welfare and employment impacts in some of the reviewed studies were limited in part because many of those in the control groups left welfare voluntarily. On this basis, it seems that many lone parents did enter employment of their own volition when circumstances permitted. This would suggest that demand-side issues may have a greater influence on lone parent employment than the individual characteristics targeted by such interventions.

Implications for research

Governments in a number of countries are introducing or scaling up employment requirements for lone parents. The specific content of these policies and interventions varies between and sometimes within countries. In searching for studies to include in this review, we found only one RCT and very few observational studies of the health impacts of welfare-to-work interventions beyond North America. In this light, there is an urgent need for robust evaluations of the economic and health impacts of welfare-to-work interventions for lone parents implemented in other high income countries. Given the institutional and cultural barriers to experimental evaluation of social interventions outside North America, it is unlikely that randomised trials will be conducted in these countries, but at the very least robust observational studies can and should be used to estimate the health impacts of these policies. There are likely opportunities for natural experiments using secondary analysis of existing survey and routine data in many countries.

Reporting of mean impacts may mask substantial variation in intervention effects ([Bitler 2006](#)). Where possible, reviews using individual participant meta-analysis would permit investigation of the influence of participant and intervention characteristics, uptake of different intervention components and whether impacts on economic outcomes mediate health effects ([Petticrew 2012](#); [Stewart 2011](#)). This would allow review authors to go beyond questions of effectiveness to consider what works, how it works and for whom ([Greenhalgh 2015](#)).

As discussed above, contamination was an issue for a number of the studies, although it is difficult to be sure to what extent the control groups were affected by either direct or indirect contamination. Ideally, control groups would have been insulated from intervention conditions or messages, and researchers made efforts to do this in four of the seven US studies conducted following nationwide welfare reform. This situation illustrates one of the

difficulties faced by those attempting to research policy-level interventions; it is rarely within the researchers' power to control the timing of an intervention or to prevent concurrent policy change from affecting the research samples (Bonnell 2011; Craig 2008). In the Child Waiver Impact Experiment studies, researchers were in the unusual position of being able to hold back control groups while reform was implemented state-wide. However, such exceptional control designs are clearly far from ideal when the policy is of a type that is likely to influence the control group via cultural and attitudinal changes. The only realistic way to prevent problems arising from contamination is to evaluate the policy prior to widespread implementation. Researchers have been making the case for some time that evaluation is more effective if it is planned and conducted prior to full-scale implementation of a new policy or intervention, in order to collect baseline data and to maintain a comparison or control group that has not been exposed to the new policy (House of Commons 2009).

A major issue with systematic reviews of complex social or public health interventions is their high degree of complexity, which often leads to such reviews being extremely lengthy, time consuming and both resource- and labour-intensive. Thomson 2013 has suggested a number of ways in which highly complex reviews can

be narrowed or simplified in order to expedite more speedy completion. However, if there is a desire or need within the research community to conduct reviews that encompass the complexity of these interventions, it is necessary to find a means of addressing the high burden this places on researchers and academic departments.

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* Indicates the major publication for the study

CHARACTERISTICS OF STUDIES

Characteristics of included studies [ordered by study ID]

California GAIN 1994

Methods	Randomised controlled trial, follow-up at 36 months
Participants	<p>Full impact sample (welfare applicants and recipients from 6 counties in California: Alameda, Butte, Los Angeles, Riverside, San Diego, Tulane recruited between 1988 and 1990), N ≥ 33,000; AFDC-FG sample (single parents with school-aged children 6 or older), N = approximately 22,770</p> <p>Survey sample (survey conducted in Alameda, Los Angeles, Riverside, San Diego, Tulane), N = 2242</p> <p>Average age: AL 34.7 years/BU 33.6 years/LA 38.5 years/RI 33.7 years/SD 33.8 years/TU 34.9 years</p> <p>Ethnicity (%) -</p> <p>white, non-Hispanic/Hispanic/black, non-Hispanic/Indochinese/other Asian/other</p> <p>AL: 17.9/7.5/68.6/2.1/0.8/1.6</p> <p>BU:85.7/5.6/3.5/0.6/2.2/2.0</p> <p>LA: 11.6/31.9/45.3/9.9/0.7/0.4</p> <p>RI: 51.2/27.6/15.5/1.3/1.7/2.2</p> <p>SD: 41.8/25.3/22.5/5.5/0.9/3.1</p> <p>Employment status - currently employed (%): AL 11.5/BU 5.9/LA 26.3/RI 6.4/SD 18.4/TU 6.9</p> <p>Family structure - not reported</p>
Interventions	<p>Compulsory intervention with caseload reduction (CR) ethos and an approach that varied over time and across sites</p> <p><i>Intervention group:</i> mandatory employment; childcare subsidy; workfare; sanctions; education and training; varied case management</p> <p><i>Control group:</i> subject to existing welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: participation in employment, training, job search or unpaid work experience required in order to receive welfare payments and other programme benefits.</p> <p>Childcare subsidy: offered fully subsidised transitional child care for one year after participant left welfare for work up to regional market childcare cost rates</p> <p>Workfare: unpaid work experience in a public or non-profit agency, paid at level of state minimum wage</p> <p>Sanctions: financial sanctions were a last resort. They involved a reduction in welfare grant for 3 or 6 months. Duration depended on level of noncompliance.</p> <p>Education and training: participants without high school diploma or low literacy were deemed “in need of basic education” and given opportunity to attend a basic education class - Adult Basic Education (ABE), General Educational Development (GED) prep, or English as Second Language (ESL) instruction. Could choose job search first but if failed to gain employment, required to enter basic education. Skills training, on-the-job train-</p>

	ing, vocationally oriented postsecondary education or unpaid work experience were also available. Varied case management: case management varied in level of enforcement, monitoring and quality of case management. Also varying emphasis on personalised attention. Generally small caseloads	
Outcomes	<p><i>Maternal mental health:</i> unhappy, sad or depressed very often or fairly often (%)</p> <p><i>Maternal physical health:</i> in good or excellent health (%)</p> <p><i>Economic employment:</i> ever employed since randomisation (36 months) (%); ever employed full-time since randomisation (%); ever employed part-time since randomisation (%)</p> <p><i>Economic income:</i> average weekly earnings since randomisation (USD)</p> <p><i>Economic insurance:</i> respondent has Medicaid or other health insurance within 2-3 yrs of randomisation (%)</p>	
Notes	-	
Risk of bias		
Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Probably done, since other reports from the same investigators clearly describe use of random sequences
Allocation concealment (selection bias)	Low risk	Central allocation; see Appendix 6
Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline
Baseline characteristics	Low risk	No significant differences in baseline characteristics
Blinding of outcome assessment (detection bias) Health outcomes	High risk	All data from face-to-face survey. Outcome assessors not blinded
Incomplete outcome data (attrition bias) All outcomes	Unclear risk	80% response rate. No reasons for missing data provided
Incomplete outcome data (outcome level)	Low risk	Authors report item non-response low
Direct contamination	Low risk	Control group isolated from GAIN participants for duration of study

California GAIN 1994 (Continued)

Indirect contamination	Low risk	Predates welfare reform
Selective reporting (reporting bias)	Unclear risk	No study protocol available

CJF 2002

Methods	Randomised controlled trial, follow-up at 18 and 36 months
Participants	<p>Half of all welfare applicants and reapplicants in Manchester and New Haven randomised between January 1996 and February 1997. Full sample N = 4803</p> <p>Focal Child Sample (single mothers with a child between the ages of 5 and 12 at the 3-year survey), N = 2069</p> <p>Age - average age 30.1 years</p> <p>Ethnicity - white non-Hispanic 34.5%; black non-Hispanic 42.5%; Hispanic 22.2%; other 0.45% (averaged across Jobs First and AFDC)</p> <p>Employment status - 25.5% of full sample employed</p> <p>Family structure - 0.4% married, living together</p>
Interventions	<p>Compulsory intervention with anti-poverty (AP) ethos and labour force attachment (LFA) approach (moved towards human capital development (HCD) approach in implementation)</p> <p><i>Intervention group:</i> mandatory employment; earnings disregard; childcare subsidy; workfare; time limit; sanctions; education and training; health insurance; low case management</p> <p><i>Control group:</i> subject to previous welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: participation in employment, training, job search or unpaid work experience required in order to receive welfare payments and other programme benefits</p> <p>Earnings supplements: none</p> <p>Earnings disregards: for employed recipients, all earned income disregarded when calculating grants and food stamp benefits as long as below the federal poverty level (USD 1138 per month for family of 3 in 1998)</p> <p>Childcare subsidy: provided childcare assistance for families leaving welfare for work for as long as income was below 75% of state median</p> <p>Workfare: unpaid work experience; no further detail</p> <p>Lifetime limit: 21 cumulative months of cash assistance unless in receipt of exemption or extension. Renewable 6 month extensions available if made a "good-faith effort" to find work and income below welfare payment standard. Many extensions were allowed</p> <p>Sanctions: failing to meet work requirements within 21 months or quitting job without good cause could result in welfare grant being reduced or closed. 1st instance = reduced by 20% for 3 months; 2nd instance = reduced by 35% for 3 months; 3rd instance = grant cancelled for 3 months. Stricter when reached time limit - a "one-strike" policy where one instance of non-compliance during extension could result in permanent discontinuance of grant</p> <p>Education and training: education and training provided for those unable to find a job after 3-6 months job search activities. Adult basic education, GED prep, ESL, vocational</p>

	<p>training. Also job search skills training if independent job search failed. Moved toward greater emphasis on training during intervention</p> <p>Health insurance: provided 2 years of transitional Medicaid for families leaving welfare for work</p> <p>Case management: focus on self-directed job search. Case management generally non-intensive, with low levels of monitoring and interaction. Lack of resources coupled with large caseloads</p>
Outcomes	<p><i>Maternal mental health:</i> T2 CES-D mean score (0-60)</p> <p><i>Child mental health:</i> T2 Behavior Problems Index (0-56)</p> <p><i>Child physical health:</i> T2 general health scale (1-5)</p> <p><i>Economic employment:</i> T2 ever employed in year of study (%)</p> <p><i>Economic benefit receipt:</i> T2 average annual welfare benefit year 3 (USD)</p> <p><i>Economic income:</i> T2 average annual income (benefits, earnings and Food Stamps) years 3-4 (USD) T2 average earnings in year of survey (USD)</p>
Notes	-

Risk of bias

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Probably done, since other reports from the same investigators clearly describe use of random sequences
Allocation concealment (selection bias)	Low risk	Central allocation; see Appendix 6
Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline
Baseline characteristics	Low risk	No significant differences in baseline characteristics. Regression used to control for baseline characteristics
Blinding of outcome assessment (detection bias) Health outcomes	High risk	Health outcomes collected by face-to-face survey; outcome assessors not blinded
Incomplete outcome data (attrition bias) All outcomes	Low risk	Response rate: intervention 72%, control 70%. Weighting and regression used to control for treatment group and response differences

Incomplete outcome data (outcome level)	High risk	Authors report that sample size may vary for all health outcomes
Direct contamination	Low risk	No evidence that control group received intervention treatment
Indirect contamination	High risk	All studies conducted after 1996 affected by change in attitudes to welfare; authors state control group likely to have been influenced by welfare reform
Selective reporting (reporting bias)	Unclear risk	No study protocol available

CJF GUP 2000

Methods	Randomised controlled trial, follow up at 18 and 36 months
Participants	<p>Half of all welfare applicants and reapplicants in Manchester and New Haven randomised between January 1996 and February 1997. Full sample N = 4803</p> <p>Connecticut Interim Client Survey sample (child aged 12-42 months at the 18-month interview), N = 342</p> <p>Age - average age at 18-month interview: 25.4 years</p> <p>Ethnicity - Latina 20%; African American 38%; white/Anglo 42%</p> <p>Employment status - 46% of all women had worked in the year prior to randomisation</p> <p>Family structure - 73% mothers never married</p>
Interventions	<p>Compulsory intervention with anti-poverty (AP) ethos and labour force attachment (LFA) approach (moved towards human capital development (HCD) approach in implementation)</p> <p><i>Intervention group:</i> mandatory employment; earnings disregard; childcare subsidy; workfare; time limit; sanctions; education and training; health insurance; low case management</p> <p><i>Control group:</i> subject to previous welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: participation in employment, training, job search or unpaid work experience required in order to receive welfare payments and other programme benefits</p> <p>Earnings supplements: none</p> <p>Earnings disregards: for employed recipients, all earned income disregarded when calculating grants and food stamp benefits as long as below the federal poverty level (USD 1138 per month for family of 3 in 1998)</p> <p>Childcare subsidy: provided childcare assistance for families leaving welfare for work for as long as income was below 75% of state median</p> <p>Workfare: unpaid work experience; no further detail</p> <p>Lifetime limit: 21 cumulative months of cash assistance unless in receipt of exemption or extension. Renewable 6 month extensions available if made a "good-faith effort" to find work and income below welfare payment standard. Many extensions were allowed</p> <p>Sanctions: failing to meet work requirements within 21 months or quitting job without</p>

	<p>good cause could result in welfare grant being reduced or closed. 1st instance = reduced by 20% for 3 months; 2nd instance = reduced by 35% for 3 months; 3rd instance = grant cancelled for 3 months. Stricter when reached time limit - a “one-strike” policy where one instance of noncompliance during extension could result in permanent discontinuance of grant</p> <p>Education and training: education and training provided for those unable to find a job after 3-6 months job search activities. Adult basic education, GED prep, ESL, vocational training. Also job search skills training if independent job search failed. Moved toward greater emphasis on training during intervention</p> <p>Health insurance: provided 2 years of transitional Medicaid for families leaving welfare for work</p> <p>Case management: focus on self-directed job search. Case management generally non-intensive, with low levels of monitoring and interaction. Lack of resources coupled with large caseloads</p>	
Outcomes	<p><i>Maternal mental health:</i> T1 CIDI at risk (% threshold not reported) T2 CES-D mean score (0-60)</p> <p><i>Child mental health:</i> T2 Child Behavior Checklist (1-3)</p> <p><i>Economic employment:</i> T1 currently employed (%)</p> <p><i>Economic insurance:</i> T1 respondent has Medicaid (%)</p>	
Notes	-	
<i>Risk of bias</i>		
Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Probably done, since other reports from the same investigators clearly describe use of random sequences
Allocation concealment (selection bias)	Low risk	Central allocation; see Appendix 6
Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline
Baseline characteristics	Unclear risk	Baseline characteristics reported for whole sample; no adjustment reported
Blinding of outcome assessment (detection bias) Health outcomes	High risk	Health outcomes collected by face-to-face survey; outcome assessors not blinded
Incomplete outcome data (attrition bias) All outcomes	Unclear risk	78% response rate at 36 months; no reasons for missing data provided

Incomplete outcome data (outcome level)	Unclear risk	No information on item non-response
Direct contamination	Low risk	No evidence that control group received intervention treatment
Indirect contamination	High risk	All studies conducted after 1996 affected by change in attitudes to welfare; authors state control group likely to have been influenced by welfare reform
Selective reporting (reporting bias)	High risk	Outcomes reported at each time point differ. CES-D mean score and Child Behavior Checklist reported at 36 months but not at 18 months. Mother reported general health collected at each time point but not reported

CJF Yale 2001

Methods	Randomised controlled trial, follow up at 18 months
Participants	<p>Half of all welfare applicants and reapplicants in Manchester and New Haven randomised between January 1996 and February 1997. Full sample N = 4803</p> <p>Older child subsample (child aged 3-10 years at 18-month interview) N = 311</p> <p>Age - average age 30.1 years</p> <p>Ethnicity - black, non-Hispanic: 41.31%; Hispanic: 17.70%; Asian/Pacific Islander: 0.69%; white: 39.61%; other: 0.69%</p> <p>Employment status - not reported</p> <p>Family structure - 4.52% living with spouse</p>
Interventions	<p>Compulsory intervention with anti-poverty (AP) ethos and labour force attachment (LFA) approach (moved towards human capital development (HCD) approach in implementation)</p> <p><i>Intervention group:</i> mandatory employment; earnings disregard; childcare subsidy; workfare; time limit; sanctions; education and training; health insurance; low case management</p> <p><i>Control group:</i> subject to previous welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: participation in employment, training, job search or unpaid work experience required in order to receive welfare payments and other programme benefits</p> <p>Earnings supplements: none</p> <p>Earnings disregards: for employed recipients, all earned income disregarded when calculating grants and food stamp benefits as long as below the federal poverty level (USD 1138 per month for family of 3 in 1998)</p> <p>Childcare subsidy: provided childcare assistance for families leaving welfare for work for as long as income was below 75% of state median</p>

Workfare: unpaid work experience; no further detail
 Lifetime limit: 21 cumulative months of cash assistance unless in receipt of exemption or extension. Renewable 6-month extensions available if made a “good-faith effort” to find work and income below welfare payment standard. Many extensions were allowed
 Sanctions: failing to meet work requirements within 21 months or quitting job without good cause could result in welfare grant being reduced or closed. 1st instance = reduced by 20% for 3 months; 2nd instance = reduced by 35% for 3 months; 3rd instance = grant cancelled for 3 months. Stricter when reached time limit - a “one-strike” policy where one instance of non-compliance during extension could result in permanent discontinuance of grant
 Education and training: education and training provided for those unable to find a job after 3-6 months job search activities. Adult basic education, GED prep, ESL, vocational training. Also job search skills training if independent job search failed. Moved toward greater emphasis on training during intervention
 Health insurance: provided 2 years of transitional Medicaid for families leaving welfare for work
 Case management: focus on self-directed job search. Case management generally non-intensive, with low levels of monitoring and interaction. Lack of resources coupled with large caseloads

Outcomes

Maternal mental health:
 T1 = CES-D % at risk ($\geq 16/60$)
Maternal physical health:
 T1 = 1 or more physical health problems (%)
Child mental health:
 T1 = Behavior Problems Index (% with problems)
Economic employment:
 currently employed (%);
 ever employed since randomisation (18 months) (%)
Economic insurance:
 respondent has Medicaid (%)

Notes -

Risk of bias

Bias	Authors’ judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Probably done, since other reports from the same investigators clearly describe use of random sequences
Allocation concealment (selection bias)	Low risk	Central allocation; see Appendix 6
Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline
Baseline characteristics	Low risk	Baseline characteristics presented and compared; few significant differences

Blinding of outcome assessment (detection bias) Health outcomes	High risk	All data collected by face-to-face survey; outcome assessors not blinded
Incomplete outcome data (attrition bias) All outcomes	Unclear risk	20% of the sample lost to follow-up or refused to participate. Reasons for missing data not presented by intervention group status
Incomplete outcome data (outcome level)	Unclear risk	No information on item non-response provided
Direct contamination	Low risk	No evidence that control group received intervention treatment
Indirect contamination	High risk	All studies conducted after 1996 affected by change in attitudes to welfare; authors state control group likely to have been influenced by welfare reform
Selective reporting (reporting bias)	Unclear risk	No study protocol available

FTP 2000

Methods	Randomised controlled trial, follow up at 48 months
Participants	<p>Report sample (single parent applicants and a proportion of reapplicants in Escambia County, Florida, randomly assigned between August 1994 and February 1995) N = 2817</p> <p>Focal Child Sample: respondents to 4-year survey sample who had a child between 5 and 12 years old, N = 1108</p> <p>Age - maternal age categories (%) - intervention/control: under 20 years: 8.1/6.0; 20-23 years: 22.8/24.1; 24-33 years: 54.9/54.3; 34-43 years: 13.1/14.3; 44 years or older: 1.1/1.2</p> <p>Ethnicity (%) - intervention/control: white, non-Hispanic: 44.7/43.3; black, non-Hispanic: 53.3/54.9; other: 2.0/1.8</p> <p>Employment status - not reported</p> <p>Family structure - married, live together (%): intervention/control 0.6/1.2</p>
Interventions	<p>Compulsory intervention with anti-poverty (AP) ethos and human capital development (HCD) approach (moving towards labour force attachment (LFA) in implementation)</p> <p><i>Intervention group:</i> mandatory employment; earnings disregard; childcare subsidy; workfare; time limit; sanctions; education and training; high case management</p> <p><i>Control group:</i> subject to existing welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: participation in employment, training, job search or unpaid work experience of at least 30 hours per/week required in order in order to receive welfare payments and other programme benefits</p> <p>Earnings supplements: none</p>

	<p>Earnings disregards: enhanced earned income disregard - first USD 200 plus one-half of remaining earned income disregarded in calculating monthly grant</p> <p>Childcare subsidy: offered subsidised transitional child care for 2 years after participant left welfare for work</p> <p>Workfare: job ready participants assigned to workfare if they did not find employment after 3 weeks of job search</p> <p>Lifetime limit: limited most families to 24 months of cash assistance in any 60-month period ('least job-ready' 36 in 72 months). Allowed up to 2, four-month extensions in some circumstances. Time limit could also be suspended if health problems identified by a doctor</p> <p>Sanctions: first 3 years of implementation, sanctions involved partial benefit termination. Adopted WAGES sanctioning policy in mid-1997 which could result in full termination for repeated noncompliance. Under WAGES: 1st instance = cash assistance closed until compliance; 2nd instance = cash and food stamps case closed until 30 days of compliance; 3rd instance = both closed for at least 3 months</p> <p>Education and training: strong emphasis on training provision, which was well resourced. Provided adult basic education and vocational training. Assigned some participants (lacking high school diploma/low literacy) to community institutions providing maths and reading instruction or GED prep. Created special short-term training programs for those facing time limits which could lead to qualifications such as nursing, machining, office supervision. Strong links with local industry</p> <p>Health insurance: none</p> <p>Case management: individualised, intensive case management delivery with small staff to participant ratios. Provided intensive one-on-one job placement help to those approaching time limit</p>	
<p>Outcomes</p>	<p><i>Maternal mental health:</i> CES-D mean score (0-60)</p> <p><i>Child mental health:</i> Behavior Problems Index (0-56)</p> <p><i>Child physical health:</i> general health scale (1-5)</p> <p><i>Economic employment:</i> ever employed in year of study (%)</p> <p><i>Economic benefit receipt:</i> total AFDC/TANF received year 4 (USD)</p> <p><i>Economic income:</i> average total income (benefits, earnings and food stamps) year 4 (USD); average total income from earnings, AFDC/TANF and food stamps year 4 (USD)</p>	
<p>Notes</p>	<p>-</p>	
<p><i>Risk of bias</i></p>		
<p>Bias</p>	<p>Authors' judgement</p>	<p>Support for judgement</p>
<p>Random sequence generation (selection bias)</p>	<p>Low risk</p>	<p>Probably done, since other reports from the same investigators clearly describe use of random sequences</p>

FTP 2000 (Continued)

Allocation concealment (selection bias)	Low risk	Central allocation; see Appendix 6
Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline
Baseline characteristics	Low risk	Baseline characteristics presented and compared; no significant differences
Blinding of outcome assessment (detection bias) Health outcomes	High risk	Health outcomes collected by face-to-face survey; outcome assessors not blinded
Incomplete outcome data (attrition bias) All outcomes	Unclear risk	20% of the sample lost to follow-up or refused to participate; reasons for missing data not presented by intervention group status
Incomplete outcome data (outcome level)	High risk	Authors report that sample size may vary for all health outcomes
Direct contamination	Low risk	No evidence that control group received intervention treatment
Indirect contamination	High risk	All studies conducted after 1996 affected by change in attitudes to welfare; authors state control group likely to have been influenced by welfare reform
Selective reporting (reporting bias)	Unclear risk	No study protocol available

IFIP 2002

Methods	Randomised controlled trial, follow up at 60 months
Participants	<p>Full sample (ongoing welfare recipients randomised 10/93, new applicants randomised between 10/93 3/96), N = 17,345. Core survey sample (stratified random sample from full sample) N = 4111</p> <p>Child Impact Study sample (respondents from the Core survey that had a child between 5 and 12 years old), N = 1962</p> <p>Age - average age Ongoing cases: 26.6 years; applicants: 26.1 years</p> <p>Ethnicity - race/ethnicity (%) Ongoing cases: white: 79.8; black: 16.0; Hispanic or other: 3.1 Applicants: white: 78.6; black: 8.0; Hispanic or other: 4.1</p> <p>Employment status - employed in year prior to randomisation: Ongoing cases: 51.8% Applicants: 69.6%</p> <p>Family structure - married respondents</p>

	<p>Applicants: 33.9%</p> <p>Ongoing cases: 16.8%</p>
Interventions	<p>Compulsory intervention with anti-poverty (AP) ethos and labour force attachment (LFA) approach</p> <p><i>Intervention group:</i> mandatory employment; earnings disregard; childcare subsidy; workfare; sanctions; education and training; case management not reported</p> <p><i>Control group:</i> subject to existing welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: required to participate in PROMISE JOBS, a programme providing employment and training opportunities. Required to complete 20 hours of work or work-related activities per week in order to receive welfare payments and other programme benefits</p> <p>Earnings supplements: none</p> <p>Earnings disregards: FIP provided earned-income disregards that resulted in a tax rate on earnings of only 40 percent: for every USD 1 a FIP family earned, FIP benefit amount reduced by USD 0.40, so total income increases by USD 0.60</p> <p>Childcare subsidy: financial assistance to pay for child care while receiving cash welfare and for up to 2 years after their cash welfare case closed because of earnings or employment. The parent made a modest co-payment based on family income and size, and IFIP paid the remaining cost of child care, up to the provider's regular fee for private-paying families or the state's maximum payment rate, whichever was lower</p> <p>Workfare: unpaid work experience and community service mentioned; no further detail</p> <p>Lifetime limit: no time limit mentioned</p> <p>Sanctions: failure to comply with programme requirements led to assignment to the Limited Benefit Plan. Initially this provided 3 months of full FIP cash benefits, then 3 months of reduced benefits and then 6 months of no benefits for the whole family. Revised in 1996 to 3 months of reduced benefits followed by 6 of no benefits. For second failure benefits terminated fully and immediately for 6 months. Revised in 1999 to full termination for first instance of non-compliance. Benefits restored immediately on compliance</p> <p>Education and training: placed little weight on developing skills and more on rapid entry into employment. However, did require mothers under 18 to obtain a high school diploma or GED</p> <p>Health insurance: none</p> <p>Case management: little detail provided</p>
Outcomes	<p><i>Maternal mental health:</i></p> <p>CES-D % at high risk ($\geq 23/60$)</p> <p><i>Child mental health:</i></p> <p>Behavior Problems Index (0-56)</p> <p><i>Child physical health:</i></p> <p>in fair or poor health (%)</p> <p><i>Economic employment:</i></p> <p>currently employed (%):</p> <p>currently employed full-time (%);</p> <p>currently employed part-time (%)</p> <p><i>Economic benefit receipt:</i></p> <p>average welfare received month prior to survey (USD);</p>

	currently receiving Family Independence Payment (%) <i>Economic income:</i> household income month prior to survey (USD); average earnings month prior to survey(USD) <i>Economic insurance:</i> family has health insurance (%)	
Notes	-	
Risk of bias		
Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	No information provided
Allocation concealment (selection bias)	Unclear risk	No information provided
Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline
Baseline characteristics	Low risk	No significant differences in baseline characteristics; regression used to control for differences
Blinding of outcome assessment (detection bias) Health outcomes	Unclear risk	All outcomes collected by face-to-face survey; no information on blinding
Incomplete outcome data (attrition bias) All outcomes	Low risk	Response rate: intervention 75.8%; control 74.0%. Weights used to account for survey non-response and attrition
Incomplete outcome data (outcome level)	Low risk	Authors report item non-response low
Direct contamination	High risk	Control conditions terminated during intervention; all participants moved to TANF at 3.5 years
Indirect contamination	High risk	All studies conducted after 1996 affected by change in attitudes to welfare
Selective reporting (reporting bias)	Unclear risk	No study protocol available

Methods	Randomised controlled trial, follow up at 60 months
Participants	<p>Full sample (all Indiana single-parent welfare recipients randomly assigned between May 1995 and April 1996), N = 66,440 5-year survey (stratified random sample from full population), N = 3360</p> <p>Focal Child sample (families who completed 5-year survey with a child aged 5 to 12), N = 1679.</p> <p>Age - under 25 years: 48%; 25-34 years: 42.7%; 35 + years: 9.3%</p> <p>Ethnicity - non-white: 44.7%</p> <p>Employment status - quarters worked in the 5 quarters before randomisation: 38.3% none; 35.8% between 1-3 quarters; 25.9% between 4-5 quarters 25.9%</p> <p>Family structure - never married: 43.8%; separated: 10.5%; divorced or widowed: 22.5%; married and living with spouse: 23.2%</p>
Interventions	<p>Compulsory intervention with caseload reduction (CR) ethos and labour force attachment (LFA) approach</p> <p><i>Intervention group:</i> mandatory employment; earnings disregard; childcare subsidy; time limit; sanctions; education and training; health insurance; case management not reported</p> <p><i>Control group:</i> subject to existing welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: required to participate in work activities (primarily working or looking for employment) for 25 hours per week in order to receive welfare payments and other programme benefits</p> <p>Earnings supplements: none</p> <p>Earnings disregards: TANF grant fixed at level of recipients' initial earnings for some time after they entered employment</p> <p>Childcare subsidy: subsidy provided but no detail given</p> <p>Workfare: none</p> <p>Lifetime limit: 24-month lifetime limit on TANF receipt. Affected only adults' portion of the grant; children continued to receive assistance</p> <p>Sanctions: for first violation, TANF grant reduced by adult's portion for 2 months, for second and third violation, reduced by same amount for 12 and 36 months, respectively. No full family sanction</p> <p>Education and training: training is referred to but no detail is provided. Main activity is described as "unsubsidized employment and job search"</p> <p>Health insurance: none</p> <p>Case management: Little detail provided</p>
Outcomes	<p><i>Maternal mental health:</i> CES-D mean score (0-60)</p> <p><i>Child mental health:</i> Behavior Problems Index (0-56)</p> <p><i>Child physical health:</i> health status scale (1-5)</p> <p><i>Economic employment:</i> currently employed (%)</p> <p><i>Economic benefit receipt:</i> TANF receipt month before survey, annualised year 5 (USD); currently receiving TANF (%)</p>

	<i>Economic income:</i> total household income month prior to survey, annualised (USD); earnings month prior to survey, annualised (USD)	
Notes	-	
<i>Risk of bias</i>		
Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	Conducted by Indiana State; no information provided
Allocation concealment (selection bias)	Unclear risk	Conducted by Indiana State; no information provided
Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline
Baseline characteristics	Low risk	No significant differences in baseline characteristics; regression used to control for differences
Blinding of outcome assessment (detection bias) Health outcomes	Unclear risk	All outcomes collected by face-to-face survey; blinding of outcome assessors unlikely; maternal depression was self-administered
Incomplete outcome data (attrition bias) All outcomes	Low risk	Overall response rate 70%; reports statistically significant difference between intervention and control groups. Weights used to adjust for attrition
Incomplete outcome data (outcome level)	Unclear risk	No information on item non-response provided
Direct contamination	Low risk	No evidence that control group received intervention treatment
Indirect contamination	High risk	All studies conducted after 1996 affected by change in attitudes to welfare; authors state control group likely to have been influenced by welfare reform
Selective reporting (reporting bias)	Unclear risk	No study protocol available

Methods	Randomised controlled trial, follow up at 36 months
Participants	<p>Total sample; welfare applicants and recipients from April 1994 to March 1996 in 3 urban and 4 rural Minnesota counties), N = 14,639</p> <p>Child Study Survey Sample (random subset of families who entered programme between April 1994 and October 1994 with at least one child between 2 and 9 years old), N = 2639</p> <p>Age - average age: 28.9 among long-term recipients, 30.1 among recent applicants</p> <p>Ethnicity - % long-term recipients/% recent applicants:</p> <p>White, non-Hispanic: 46.4/63.5</p> <p>Black, non-Hispanic: 40.9/27.9</p> <p>Hispanic: 2.2/2.2</p> <p>Native American/Alaskan Native: 8.8/5.3</p> <p>Asian/Pacific Islander: 1.7/1.2</p> <p>Employment status - 12.8% among long-term recipients, 22.3% among recent applicants</p> <p>Family structure - married, living with spouse: 0.5% among long-term recipients, 0.6% among recent applicants</p>
Interventions	<p>Compulsory intervention with anti-poverty (AP) ethos and labour force attachment (LFA) approach (intervention group 1)</p> <p><i>Intervention group1</i> (MFIP): mandatory employment; earnings disregard; childcare subsidy; sanctions; mandatory education and training; case management not reported</p> <p><i>Intervention group2</i> (MFIP-incentives only): earnings disregard; childcare subsidy; voluntary education and training; case management not reported</p> <p><i>Control group</i>: subject to existing welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: mandatory participation in employment-focused activities for long-term welfare recipients. MFIP required mothers who were unemployed for 24 months out of the previous 36 to work 30 hours at least per week if not participating in employment services or 20 hours if had child under age of 6 in order to receive welfare payments and other programme benefits. Short-term recipients and MFIP-IO group were not required to participate in work related activities but received programme benefits if they did</p> <p>Earnings supplements: none</p> <p>Earnings disregards: recipients eligible for welfare until income reached 140% of the poverty level. Those already working received additional income for no extra hours of work</p> <p>Childcare subsidy: child care subsidies paid directly to provider if recipient working while on welfare. Amounts paid did not differ from control group, but intervention group also given child care for attending counselling, drug programmes etc. to tackle barriers to work</p> <p>Workfare: none</p> <p>Lifetime limit: none</p> <p>Sanctions: failure to comply with the programme requirements led to sanction involving monthly welfare payments reduced by 10%</p> <p>Education and training: employment and training participation required if receiving assistance for 24 of past 36 months. Provided job search, short-term training, and educational activities</p> <p>Health insurance: none</p>

	Case management: case management role to monitor and give guidance but level of monitoring or time spent with clients not detailed; staff-to-participant ratio not mentioned
Outcomes	<p><i>Maternal mental health:</i> CES-D % at high risk ($\geq 23/60$)</p> <p><i>Child mental health:</i> Behavior Problems Index (0-56)</p> <p><i>Child physical health:</i> in good or excellent health (%)</p> <p><i>Economic employment:</i> ever employed since randomisation (36 months) (%); ever employed full-time since randomisation (%); ever employed part-time since randomisation (%)</p> <p><i>Economic benefit receipt:</i> average annual welfare benefit year 3 (USD)</p> <p><i>Economic income:</i> average annual income (benefits and earnings) year 3 (USD); average annual earnings years 1-3 (USD)</p> <p><i>Economic insurance:</i> children have health insurance continuously past 36 months (%)</p>

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Risk of bias

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Probably done, since other reports from the same investigators clearly describe use of random sequences
Allocation concealment (selection bias)	Low risk	Central allocation; see Appendix 6
Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline
Baseline characteristics	Unclear risk	Baseline characteristics not presented separately for intervention groups; some baseline characteristics are controlled for, but not clear which ones
Blinding of outcome assessment (detection bias) Health outcomes	Low risk	Health outcomes collected by Audio-CASI; outcome assessors blind to response
Incomplete outcome data (attrition bias) All outcomes	Low risk	Response rate: intervention 80.3% control 75%.Regression used to control for differences between groups

MFIP 2000 (Continued)

Incomplete outcome data (outcome level)	Low risk	Values for health outcomes imputed to account for item non-response
Direct contamination	Low risk	No evidence that control group received intervention treatment
Indirect contamination	High risk	All studies conducted after 1996 affected by change in attitudes to welfare; authors state control group likely to have been influenced by welfare reform
Selective reporting (reporting bias)	High risk	Maternal CES-D scale, health insurance and employment outcomes not reported for rural subgroups

New Hope 1999

Methods	Randomised controlled trial, follow up at 24, 60 and 96 months
Participants	<p>Total sample: low-income adults aged ≥ 18 years living in 2 inner city areas of Milwaukee, randomly assigned from August 1994 through December 1995. Recruited by community workers in community settings. N = 1357</p> <p>Child and Family Study (CFS) Sample (families with at least one child between ages 1 and 10 at baseline), N = 745</p> <p>Age - average age T1: 29.4 years</p> <p>Ethnicity - T1: African American: 55.0%, Hispanic: 29.3%, white: 12.5%, Native American/Alaskan Native: 3.2%</p> <p>Employment status - employed at randomisation: 36.5%</p> <p>Family structure - married, living with spouse: 10.5%</p>
Interventions	<p>Voluntary intervention with anti-poverty (AP) ethos and labour force attachment (LFA) approach</p> <p><i>Intervention group:</i> earnings supplement; childcare subsidy; health insurance; high case management</p> <p><i>Control group:</i> subject to existing welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: voluntary programme. Required to work full time (at least 30 hours a week) in order to receive earnings supplements and other programme benefits</p> <p>Earnings supplements: New Hope offered monthly earnings supplements to participants who worked at least 30 hours per week but whose earnings left their household below 200% of the poverty line. Earnings supplements were adjusted upward for household size, up to a maximum of 2 adults and 4 children</p> <p>Earnings disregards: none</p> <p>Childcare subsidy: financial assistance to cover child care expenses for children under age 13 when parent worked at least 30 hours per week. Participants paid a portion of the cost, based on income and household size; New Hope covered the remainder. For participants to qualify for New Hope subsidies, the child care had to be provided in</p>

	<p>state-licensed or county-certified homes or child care centres</p> <p>Workfare: none. Community service jobs were available to those who could not find employment independently, but these were voluntary and paid at market rates</p> <p>Lifetime limit: no limit on receipt of welfare payments. 3-year limit on supplement payments</p> <p>Sanctions: none</p> <p>Education and training: education or training activities were not provided but New Hope staff provided advice and signposting to training</p> <p>Health insurance: provided for those working at least 30 hours per week and not covered by employers' health insurance or Medicaid. Required to contribute toward premium on a sliding scale that took into account their income and household size; New Hope subsidised the remainder</p> <p>Case management: intensive case management with high-quality staff services, individualised attention, flexibility and frequent contact. Voluntary so focus on engagement through support rather than sanctions</p>
<p>Outcomes</p>	<p><i>Maternal mental health:</i></p> <p>T1 CES-D mean score (0-60);</p> <p>T3 CES-D mean score (0-60)</p> <p><i>Maternal physical health:</i></p> <p>T3 physical health scale (1-5)</p> <p><i>Child mental health:</i></p> <p>T1 Problem Behavior Scale (1-5);</p> <p>T3 Problem Behavior Scale (1-5)</p> <p><i>Child physical health:</i></p> <p>T3 overall health scale (1-5)</p> <p><i>Economic employment:</i></p> <p>T1 ever employed year 2 (%);</p> <p>T3 ever employed year 5 (%);</p> <p>T3 currently employed full-time (%)</p> <p><i>Economic benefit receipt:</i></p> <p>T1 total AFDC received year 2 (USD);</p> <p>T1 ever received AFDC/TANF year 2 (%);</p> <p>T3 total AFDC/TANF receipt year 5 (USD);</p> <p>T3 ever received AFDC/TANF year 5 (%)</p> <p><i>Economic income:</i></p> <p>T1 total income year 2 (USD);</p> <p>T1 average annual earnings year 2 (USD);</p> <p>T3 total income year 5 (USD);</p> <p>T3 average earnings year 5 (USD)</p> <p><i>Economic insurance:</i></p> <p>T1 respondent ever had Medicaid since randomisation (24 months) (%);</p> <p>T3 respondent has health insurance (%);</p> <p>T3 all focal children have health insurance (%)</p>
<p>Notes</p>	<p>-</p>
<p><i>Risk of bias</i></p>	

New Hope 1999 (Continued)

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Probably done, since other reports from the same investigators clearly describe use of random sequences
Allocation concealment (selection bias)	Low risk	Central allocation; see Appendix 6
Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline
Baseline characteristics	Low risk	No significant differences in baseline characteristics. Weighting used to control for differences
Blinding of outcome assessment (detection bias) Health outcomes	High risk	Health outcomes collected by face-to-face survey; outcome assessors not blinded
Incomplete outcome data (attrition bias) All outcomes	Low risk	Response rates (%): At 2 years intervention 79.7, control 79 At 5 years intervention 77, control 73.5 Unit and item non-response addressed using multiple imputation
Incomplete outcome data (outcome level)	Low risk	Unit and item non-response addressed using multiple imputation
Direct contamination	High risk	Wisconsin Works implemented state-wide in 1997, a year before New Hope intervention ended. It is unclear how much New Hope participants were affected but it is likely that year 5 data are affected by contamination bias
Indirect contamination	High risk	All studies conducted after 1996 affected by change in attitudes to welfare
Selective reporting (reporting bias)	High risk	Maternal physical health not reported at T1. Child overall health not reported at T1. Total behaviour problems not reported at 96 months

Methods	Randomised controlled trial, follow-up at 24 and 60 months
Participants	<p>Full impact sample (welfare applicants or recipients randomly assigned June 1991 to December 1994 in Atlanta, Grand Rapids, Riverside, Columbus, Detroit, Oklahoma City, Portland), N = 41,715</p> <p>Child Outcomes Study sample (single parent with child aged 3 to 5 years at randomisation, in Atlanta, Grand Rapids or Riverside. Randomly selected from respondents to 2-year Survey), N = 3018</p> <p>Age - T1 mean age of mother: 29.0 years in Atlanta, 26.7 years in Grand Rapids, 29.3 years in Riverside</p> <p>Ethnicity - T1 % in Atlanta/Grand Rapids/Riverside</p> <p>White, non-Hispanic: 3.6/52.7/46.3; Hispanic: 0.7/6.0/31.4; black, non-Hispanic: 95.2/39.1/19.6; black Hispanic: 0.1/0.2/0.0; American Indian/Alaskan: 0.2/1.1/1.3; Asian/Pacific Islander: 0.1/0.2/1.5; other: 0.1/0.8/0.0</p> <p>Employment status - T1 % in Atlanta/Grand Rapids/Riverside employed at baseline 9.1%/11.5%/9.7%</p> <p>Family structure - T1 % in Atlanta/Grand Rapids/Riverside married, living with spouse: 0.9%/2.1%/2.2%</p>
Interventions	<p>Compulsory intervention with caseload reduction (CR) ethos, human capital development (HCD) approach (intervention group 1) and labour force attachment (LFA) approach (intervention group 2)</p> <p><i>Intervention group 1 (HCD):</i> mandatory employment; workfare; sanctions; education and training; high case management</p> <p><i>Intervention group 2 (LFA):</i> mandatory employment; workfare; sanctions; education and training; high case management</p> <p><i>Control group:</i> subject to existing welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: required to engage in a JOBS welfare-to-work programme requiring mandated participation in education, training and/or employment activities for an average of 30 hours per week, including at least 20 hours in actual work or job search, in order to receive welfare payments and other programme benefits</p> <p>Earnings supplements: none</p> <p>Earnings disregards: none</p> <p>Childcare subsidy: none</p> <p>Workfare: participants could be assigned to 3 types of work experience positions: unpaid work in the public or private sector (in exchange for their welfare grant), on job training in private sector and paid work. More common in LFA programmes</p> <p>Lifetime limit: none</p> <p>Sanctions: sanctions in place for non-participation in work mandates. Grand Rapids LFA in particular frequently issued sanctions, while other programmes gave clients more chances to comply. Adult welfare grant was reduced by approximately 20%, depending on the site. Penalty continued until sanctioned individual complied with participation mandate. Minimum sanction length of 3 months for 2nd 'offence' and 6 months for third offence (no minimum length for first offence)</p> <p>Education and training: HCD groups initially assigned to some type of skill-building activity (GED prep, ESL, adult basic skills classes). LFA programmes assigned most enrollees to job club as first activity. Education and training available after if necessary or in addition to work</p>

	Health insurance: none Case management: most sites described as 'high enforcement' with close monitoring and sanctions applied for non-participation. Suggests intensive case management. Seems HCD programmes more flexible, though varied across sites	
Outcomes	<p><i>Maternal mental health:</i> T1 CES-D mean score (0-36)</p> <p><i>Child mental health:</i> T1 Behavior Problems Index (0-2); T3 BPI Externalising subscore (0-18); T3 BPI Internalising subscore (0-24); T3 BPI Hyperactivity subscore (0-18)</p> <p><i>Child physical health:</i> T1 general health rating (1-5); T3 general health rating (1-5)</p> <p><i>Economic employment:</i> T1 currently employed (%); T1 ever employed since randomisation (24 months) (%); T3 currently employed (%); T3 ever employed years 1-5 (%); T3 currently employed full-time (%); T3 currently employed part-time (%)</p> <p><i>Economic benefit receipt:</i> T1 currently receiving AFDC (%); T3 total welfare payments years 1-5 (USD)</p> <p><i>Economic income:</i> T1 total net household income in prior month (USD); T1 average earnings previous month (USD); T3 total income years 1-5 (USD); T3 average earnings years 1-5 (USD)</p> <p><i>Economic insurance:</i> T1 respondent ever had employer-provided health insurance since randomisation (24 months) (%); T1 child health insurance (%); T3 family has health insurance (%)</p>	
Notes	-	
Risk of bias		
Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Probably done, since other reports from the same investigators clearly describe use of random sequences
Allocation concealment (selection bias)	Low risk	Central allocation; see Appendix 6

Baseline outcome measurements Unclear risk	Unclear risk	Maternal CES-D collected at baseline and controlled for, but no other health outcomes collected at baseline
Baseline characteristics	Low risk	Response rates at 5 years (%): Atlanta LFA: 82.8 Atlanta HCD: 77.6 Atlanta control: 79.9 Grand Rapids LFA: 84.5 Grand Rapids HCD: 80.3 Grand Rapids control: 85.9 Riverside LFA: 62.9 Riverside HCD: 67.3 Riverside control: 64.9 Weights and regression used to control for differences in baseline characteristics
Blinding of outcome assessment (detection bias) Health outcomes	High risk	Health outcomes by face-to-face survey; outcome assessors not blinded
Incomplete outcome data (attrition bias) All outcomes	Low risk	Weights and regression used to correct/control for differences in background characteristics. Authors state differences in response rates and characteristics were not sufficient to bias the impacts
Incomplete outcome data (outcome level)	High risk	Authors report that sample size may vary for all health outcomes
Direct contamination	High risk	Some control group members in Atlanta and Grand Rapids were required to participate in WtW programmes after year 3. Data at 5 years may therefore suffer from contamination bias
Indirect contamination	High risk	All studies conducted after 1996 affected by change in attitudes to welfare
Selective reporting (reporting bias)	High risk	Maternal CES-D scale and summary Behavior Problems Index only reported at 24 months

Ontario 2001

Methods	Randomised controlled trial, follow up at 24 and 48 months
Participants	<p>Full sample (all new single parent applicants approved to receive welfare benefit in 2 areas of Ontario) N (eligible) = 1739; N (recruited) = 765</p> <p>Full intervention group, employment training group and control group N = 459</p> <p>Age (%): 15-19 years: full Intervention (FI) 2.5/employment retraining (ER) 4.1/self-directed (SD) 6.9; 20-24 years: FI 16.5/ER 19/SD 16.4; 25-29: FI 21.5/ER 23.1/SD 19; 30-34 years: FI 19/ER 21.5/SD 20.7; 35-39 years: FI 21.5/ER 16.5/SD 19.8; 40 and over years: FI 19/ER 15.7/SD 17.2</p> <p>Ethnicity - not reported.</p> <p>Employment status - %: full-time work: FI 5/ER 5.8/SD 1.7; part-time work: FI 15.8/ER 10/SD 14.7; unemployed: FI 16.7/ER 15.8/SD 20.7</p> <p>Family structure - marital status (n/%)</p> <p>Married or remarried or common law: 12/1.6; separated 343/ 44.8; divorced or annulled 171/22.4; widowed 10/1.3; never married 22.9/29.9</p>
Interventions	<p>Voluntary intervention</p> <p><i>Full Intervention group:</i> childcare subsidy; education and training; high case management</p> <p><i>Employment training group:</i> employment training only</p> <p><i>Control group:</i> subject to existing welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: not required to participate in programme activities in order to receive welfare payments or other programme benefits. No sanctions or supplements attached to non/participation</p> <p>Earnings supplements: none</p> <p>Earnings disregards: none</p> <p>Childcare subsidy: group 1 (comprehensive approach) received subsidised after school recreation/child care twice a week for 4 years</p> <p>Workfare: none</p> <p>Lifetime limit: none</p> <p>Sanctions: none</p> <p>Education and training: group 1 received up to 6 employment skills focused sessions with an employment counsellor</p> <p>Health insurance: NA</p> <p>Case management: case management involved home visits and intensive contact and support. Flexible/personalised case management focused on problem solving, engagement and empowerment</p>
Outcomes	<p><i>Maternal mental health:</i></p> <p>T1 presence of mood disorders (University of Michigan, Composite International Diagnostic Interview) (%)</p> <p><i>Maternal physical health:</i></p> <p>T2 in good or excellent health %</p> <p><i>Child mental health:</i></p> <p>T1 1 or more behaviour disorders (Survey Diagnostic Instrument) (%);</p> <p>T2 Survey Diagnostic Instrument Conduct Disorder (0-30)</p> <p><i>Economic benefit receipt:</i></p> <p>T1 received social assistance in last 12 months (%);</p> <p>T2 social assistance/unemployment insurance receipt year 4 (%)</p>

Notes	-	
Risk of bias		
Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	"Subjects eligible and receiving income maintenance were randomly allocated to one of five treatment strategies using a computerized randomization schedule which blocked randomly after every 5th or 10th subject (household) to ensure equal numbers in all treatment groups."
Allocation concealment (selection bias)	Unclear risk	No information provided
Baseline outcome measurements Unclear risk	High risk	Outcome measures presented for all groups, but differ by group; no mention of adjustment
Baseline characteristics	Low risk	Many baseline characteristics are presented; there are few significant differences between groups
Blinding of outcome assessment (detection bias) Health outcomes	Low risk	Outcome assessors blind to intervention status
Incomplete outcome data (attrition bias) All outcomes	High risk	Very high. Overall response rate at randomisation 44%. Of 1739 eligibles, 700 refused and 274 were not contactable. At 2 years, response rate varied across groups from 38%-58%. Overall response rate at 4 years was 78.5% of randomisation sample; no reasons for missing data provided
Incomplete outcome data (outcome level)	Unclear risk	No information on item non-response
Direct contamination	High risk	Ontario Works introduced in 1996, although single parents of children under school age often exempt. Also earnings disregards increased. Difficult to assess how much this would have affected this sample
Indirect contamination	High risk	Attitudes to welfare became increasingly negative during this period

Ontario 2001 (Continued)

Selective reporting (reporting bias)	High risk	All outcomes reported at each time point differ
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SSP Applicants 2003

Methods	Randomised controlled trial, follow up at 72 months
Participants	<p>Applicant study sample; single parents 19 years or older who had recently applied for Income Assistance (and remained on it for 12 out of 13 months in order to receive supplement), assigned randomly between February 1994 and March 1995. Randomly selected from all adult single parents applying for IA in selected areas of British Columbia. N = 3,315</p> <p>Age - under age 25 (%): intervention 15.5, control 14.3 Ethnicity - First Nations ancestry (%) intervention 7.2, control 8.7 Employment status - worked in month before randomisation (%): intervention 24.0, control 23.1 Family structure - never married (%): intervention 21.6, control 25.1</p>
Interventions	<p>Voluntary intervention with anti-poverty (AP) ethos and labour force attachment (LFA) approach</p> <p><i>Intervention group:</i> earnings supplement; low case management <i>Control group:</i> subject to existing welfare programme <i>Further details of intervention components:</i></p> <p>Mandatory employment: not required to participate in employment in order to receive welfare payments. Required to work at least 30 hours per week to be eligible for supplement payments</p> <p>Earnings supplements: financial supplement paid to parents who worked 30 or more hours per week an amount equal to half the difference between their actual earnings and a 'benchmarked' level of earnings. During the first year of operations, the benchmark was CAD 30,000 in New Brunswick and CAD 37,000 in British Columbia. Had to remain on Income Assistance for 12 months to qualify for supplement payments</p> <p>Earnings disregards: none Childcare subsidy: none Workfare: none Lifetime limit: no limit on receipt of welfare payments. 3-year limit on supplement payments Sanctions: none Education and training: education or training activities were not provided but SSP staff provided advice and signposting to training Health insurance: NA Case management: generally non-intensive with limited contact</p>
Outcomes	<p><i>Maternal mental health:</i> CES-D mean score (0-33) <i>Child mental health:</i> Behavior Problems Scale (1-3) <i>Child physical health:</i> child average health scale (1-5)</p>

SSP Applicants 2003 (Continued)

	<p><i>Economic employment:</i> currently employed (%); currently employed full-time (%); currently employed part-time (%)</p> <p><i>Economic benefit receipt:</i> average Income Assistance received year 6 (CAD); currently receiving income assistance (%)</p> <p><i>Economic income:</i> total monthly individual income at 72 months (CAD); average earnings year 6 (CAD)</p>	
Notes	-	
Risk of bias		
Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Randomly chosen from lists of IA recipients
Allocation concealment (selection bias)	Low risk	"Immediately after the baseline interview, each of these . . . single parents was randomly assigned to one of the research groups of the SSP study. Each sample member had 50-50 odds of being assigned to the program group or the control group."
Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline
Baseline characteristics	Low risk	Significant differences in some baseline characteristics, but regression adjusted estimates did not differ from unadjusted estimates. Unadjusted estimates presented throughout
Blinding of outcome assessment (detection bias) Health outcomes	Unclear risk	Health outcomes collected by face-to-face survey; no information on blinding
Incomplete outcome data (attrition bias) All outcomes	Unclear risk	72% response rate at 72 months; no reasons for missing data provided
Incomplete outcome data (outcome level)	High risk	Authors report that sample size may vary for all outcomes
Direct contamination	High risk	Direct - welfare conditions became increasingly restrictive during the course of the study

SSP Applicants 2003 (Continued)

Indirect contamination	High risk	Attitudes to welfare became increasingly negative during this period
Selective reporting (reporting bias)	Unclear risk	No study protocol available

SSP Recipients 2002

Methods	Randomised controlled trial, follow-up at 36 and 54 months
Participants	<p>Recipient study sample; single parents 19 years or older who had received Income Assistance payments in the current month and at least 11 of the prior 12 months. Randomly selected from all adult single parents applying for IA in selected areas of British Columbia and New Brunswick between November 1992 and March 1995 N = 5739</p> <p>Age 19-24 years (only age group reported) %: total sample/British Columbia/New Brunswick: 21.7/17.3/26.5</p> <p>Ethnicity - % total sample/British Columbia/New Brunswick: First Nations ancestry 9.7/13.1/6.0; not born in Canada 13.0/22.5/ 2.4</p> <p>Employment status - 19% employed in total at baseline</p> <p>Family structure - never married % total sample/British Columbia/New Brunswick 48.9/43.7/54.6</p>
Interventions	<p>Voluntary intervention with anti-poverty (AP) ethos and labour force attachment (LFA) approach</p> <p><i>Intervention group:</i> earnings supplement; low case management</p> <p><i>Control group:</i> subject to existing welfare programme</p> <p><i>Further details of intervention components:</i></p> <p>Mandatory employment: not required to participate in employment in order to receive welfare payments. Required to work at least 30 hours per week to be eligible for supplement payments</p> <p>Earnings supplements: financial supplement paid to parents who worked 30 or more hours per week an amount equal to half the difference between their actual earnings and a 'benchmarked' level of earnings. During the first year of operations, the benchmark was CAD 30,000 in New Brunswick and CAD 37,000 in British Columbia. Had to find a full-time job within 12 months to qualify for supplement payments</p> <p>Earnings disregards: none</p> <p>Childcare subsidy: none</p> <p>Workfare: none</p> <p>Lifetime limit: no limit on receipt of welfare payments. 3-year limit on supplement payments</p> <p>Sanctions: none</p> <p>Education and training: education or training activities were not provided but SSP staff provided advice and signposting to training</p> <p>Health insurance: NA</p> <p>Case management: generally non-intensive with limited contact</p>

SSP Recipients 2002 (Continued)

Outcomes	<p><i>Maternal mental health:</i> T2 CES-D mean score (0-33); T3 CES-D mean score (0-33)</p> <p><i>Child mental health:</i> T2 Behavior Problems Scale (1-3); T2 adolescent CES-D at risk ($\% \geq 8/30$); T3 Behavior Problems Scale (1-3)</p> <p><i>Child physical health:</i> T2 child average health scale (1-5); T3 child average health scale (1-5)</p> <p><i>Economic employment:</i> T2 ever employed full-time since randomisation (%); T2 employed FT at 33 months (%); T2 currently employed part-time (%); T3 currently employed (%); T3 currently employed full-time (%); T3 currently employed part-time (%)</p> <p><i>Economic benefit receipt:</i> T2 average Income Assistance year 3 (CAD); T2 Income Assistance receipt year 3 (%); T3 average Income Assistance received year 5 (CAD); T3 cCurrently receiving Income Assistance (%);</p> <p><i>Economic income:</i> T2 total monthly individual income 6 months prior to 3 year survey (CAD); T2 average earnings in year of survey (CAD); T3 total monthly individual income (average in 6 months prior to month 54 (CAD)); T3 monthly earnings year 5, quarter 18 (CAD)</p>
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Notes	-
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Risk of bias

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Randomly chosen from lists of IA recipients
Allocation concealment (selection bias)	Low risk	"Immediately after the baseline interview, each of these . . . single parents was randomly assigned to one of the research groups of the SSP study. Each sample member had 50-50 odds of being assigned to the program group or the control group."
Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline

SSP Recipients 2002 (Continued)

Baseline characteristics	Unclear risk	Baseline characteristics not reported by intervention status; no adjustment reported
Blinding of outcome assessment (detection bias) Health outcomes	Unclear risk	Health outcomes collected by face-to-face survey; no information on blinding
Incomplete outcome data (attrition bias) All outcomes	Unclear risk	80% response rate at 2 years. 72% response rate at 5 years; no reasons for missing data provided
Incomplete outcome data (outcome level)	High risk	Authors report that sample size may vary for all outcomes: "Sample sizes reflect the largest sample of all measures shown. However, sample sizes vary largely across the measures, ranging from 235 to 1,111 in the program group."
Direct contamination	High risk	Direct - welfare conditions became increasingly restrictive during the course of the study
Indirect contamination	High risk	Attitudes to welfare became increasingly negative during this period
Selective reporting (reporting bias)	High risk	Child health outcomes and subgroups reported at T1 and T3 differ

UK ERA 2011

Methods	Randomised controlled trial, follow up at 60 months
Participants	<p>Main study sample N = 16,384. New Deal for Lone Parents Sample (lone parents receiving welfare benefits and attending a Job Centre, randomised between October 2003 and December 2004, from 6 sites in the UK) N = 6787</p> <p>Customer survey sample N = 1854</p> <p>Age - (%): under 30 years, 41.3; 30-39 years, 39.7; 40 years or older, 19.0</p> <p>Ethnicity - ethnic minority 14.8; white 85.2</p> <p>Employment status - number of months worked in 3 years prior to randomisation (%) none, 49.6; 1-12 months, 23.1; ≥ 13 months, 27.3</p> <p>Family structure - marital status (%) single, 71.6; divorced, 14.7; separated, 11.6; widowed, 1.2; living together, 0.0; married, 0.6</p>
Interventions	<p>Voluntary intervention with anti-poverty (AP) ethos and human capital development (HCD) approach</p> <p><i>Intervention group:</i> earnings supplement; education and training; high case management</p> <p><i>Control group:</i> subject to existing welfare programme</p> <p><i>Further details of intervention components:</i></p>

	<p>Mandatory employment: not required to participate in employment in order to receive welfare payments. Required to work at least 30 hours per week in 13 weeks out of 17 week period to be eligible for supplement payments. Unique postemployment 'in work' phase lasting approximately 2 years</p> <p>Earnings supplements: paid an employment retention bonus of GBP 400, 3 times a year for 2 years for staying in full-time work (at least 30 hours per week for 13 out of every 17 weeks)</p> <p>Earnings disregards: none</p> <p>Childcare subsidy: none</p> <p>Workfare: none</p> <p>Lifetime limit: no limit on receipt of welfare payments. 33-month limit on supplement payments</p> <p>Sanctions: none</p> <p>Education and training: provided financial support for training and completion bonuses - assistance for training courses up to GBP 1000 while employed and a bonus up to GBP 1000 for completing training when employed. Helped to identify appropriate education or training courses</p> <p>Health insurance: NA</p> <p>Case management: supportive case management. Flexible with regular, intensive post employment support. Generally small caseloads, however substantial variation across offices</p>	
Outcomes	<p><i>Maternal mental health:</i> miserable or depressed often or always (%)</p> <p><i>Maternal physical health:</i> long-standing illness, disability or infirmity (%); in good or very good health (%)</p> <p><i>Economic employment:</i> currently employed (%); ever employed year 5 (%); currently employed full-time (%); currently employed part-time (%)</p> <p><i>Economic benefit receipt:</i> average Income Support received per wk (GBP); currently receiving Income Support or Jobseeker's Allowance (GBP)</p> <p><i>Economic income:</i> average earnings year 5 (GBP)</p>	
Notes	-	
<i>Risk of bias</i>		
Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Computerised algorithm used
Allocation concealment (selection bias)	Low risk	Central allocation; see Appendix 6

Baseline outcome measurements Unclear risk	Unclear risk	No health outcomes collected at baseline
Baseline characteristics	Low risk	Regression used to control for differences in background characteristics
Blinding of outcome assessment (detection bias) Health outcomes	Unclear risk	Health outcomes collected by face-to-face survey; no information on blinding
Incomplete outcome data (attrition bias) All outcomes	High risk	Very high. 62% of randomisation sample responded to 60-month survey (64% of intervention group and 60% of control group). Most disadvantaged more likely to drop out. Administrative data showed that survey data overestimated impact on earnings, although estimate for ever employed in year 5 was not biased. Weighting attempted but not successful; authors state findings should be treated with caution
Incomplete outcome data (outcome level)	Unclear risk	No information on item non-response
Direct contamination	High risk	5-year data were collected between October 2008 and January 2009. During this period, lone parents with a youngest child aged ≥ 12 years (2008) and ≥ 7 years (October 2009) were transferred to Jobseekers' Allowance, which is a conditional out-of-work benefit. They were therefore required to prove that they were actively seeking work. It is not clear what proportion of the sample were affected by these changes
Indirect contamination	Unclear risk	Attitudes to welfare changed during this period
Selective reporting (reporting bias)	Unclear risk	No study protocol available

AFDC: Aid to Families with Dependent Children; **AP:** anti-poverty; **audio-CASI:** audio-enhanced, computer-assisted self-interviewing; **BPI:** Behavior Problems Index; **CES-D:** Center for Epidemiologic Studies Depression Scale; **CIDI:** Composite International Diagnostic Interview; **CR:** caseload reduction; **ESL:** English as a second language; **FIP:** family independence payment; **GED:** general education development; **HCD:** human capital development; **IA:** income assistance; **LFA:** labour force attachment; **MFIP:** Minnesota Family Investment Program; **NA:** not applicable; **NDLP:** New Deal for Lone Parents; **TANF:** Temporary Assistance for Needy Families; **WtW:** welfare to work.

Characteristics of excluded studies *[ordered by study ID]*

Study	Reason for exclusion
ABC 1999	No relevant outcomes
Action Emploi 2011	Not a randomised control trial
ARIZONA WORKS 2003	No health outcomes
Bembry 2011	Not a randomised control trial
BIAS 2014	Not welfare to work
BIAS Next Generation 2016	Not welfare to work
Bloom 2016	Not welfare to work
Callahan 1995	Not welfare to work
Cook 2009	Not a randomised control trial
CWEP 1986	No health outcomes
Danziger 2000	Not a randomised control trial
Dockery 2004	No health outcomes
Duncan 2004	Not a randomised control trial
EMPOWER 1999	No health outcomes
ERA 2007	Inappropriate population
Farrell 2013	Inappropriate population
FLORIDA PI 1994	No health outcomes
Fuller 2002	Not a randomised control trial
Grogger 2009	Review
Horton 2002	Not a randomised control trial
HPOG 2014	Not welfare to work
JOBS 1993	Aimed at teenage parents
JOBS 1995	Not a randomised control trial

(Continued)

JOB'S 1ST GAIN 1999	No relevant outcomes
Limoncelli 2002	Not a randomised control trial
Maynard 1979	No health outcomes
Meckstroth 2006	Low proportion of lone parents
MFSP 1991	No health outcomes
MICHIGAN FAMILIES 1997	No health outcomes
Michigan Work First 2000	Not a randomised control trial
Morris 2005	Not a primary study
New Jersey FDP 1998	Not a randomised control trial
Opportunity NYC Family Rewards 2013	Not lone parents
Opportunity NYC Work Rewards 2015	No health outcomes
PACE 2014	Not welfare to work
SIME/DIME 1983	Not welfare to work
STED 2015	Not welfare to work
SUPPORTED WORK 1979	No health outcomes
SWIM 1989	No relevant outcomes
TEEN JOBS 1993	Aimed at teenage parents
The SNAP Employment and Training Evaluation 2014	Not lone parents
TPD 1989	Aimed at teenage parents
TWRW 2003	Population unclear
VERMONT WRP 1998	No relevant outcomes
Walker 2005	Not a randomised control trial
Weil 2002	Not a randomised control trial
Zaslow 2002	Review

DATA AND ANALYSES

Comparison 1. Time point 1 Maternal mental health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Maternal mental health continuous	2	3352	Std. Mean Difference (IV, Random, 95% CI)	0.07 [0.00, 0.14]
1.1 CES-D mean score (0-60)	1	590	Std. Mean Difference (IV, Random, 95% CI)	0.0 [-0.16, 0.16]
1.2 CES-D mean score (0-36)	1	2762	Std. Mean Difference (IV, Random, 95% CI)	0.08 [0.01, 0.16]
2 Maternal mental health dichotomous	3		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
2.1 Presence of mood disorders (University of Michigan, Composite International Diagnostic Interview) (%)	1	148	Risk Ratio (M-H, Random, 95% CI)	0.99 [0.50, 1.99]
2.2 CES-D at risk (% \geq 16/60)	1	311	Risk Ratio (M-H, Random, 95% CI)	1.18 [0.80, 1.74]
2.3 CIDI at risk (% threshold not reported)	1	308	Risk Ratio (M-H, Random, 95% CI)	1.21 [0.72, 2.06]

Comparison 2. Time point 2 Maternal mental health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Maternal mental health continuous	3	7091	Std. Mean Difference (IV, Random, 95% CI)	0.00 [-0.05, 0.05]
1.1 CES-D mean score (0-60)	2	2576	Std. Mean Difference (IV, Random, 95% CI)	0.02 [-0.06, 0.09]
1.2 CES-D mean score (0-33)	1	4515	Std. Mean Difference (IV, Random, 95% CI)	-0.01 [-0.07, 0.05]
2 CJF GUP CES-D mean score (0-60)			Other data	No numeric data
3 Maternal mental health dichotomous	2		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
3.1 Unhappy, sad or depressed very often or fairly often (%)	1	2242	Risk Ratio (M-H, Random, 95% CI)	1.06 [0.95, 1.18]
3.2 CES-D at high risk (% \geq 23/60)	1	1900	Risk Ratio (M-H, Random, 95% CI)	1.00 [0.85, 1.18]

Comparison 3. Time point 3 Maternal mental health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Maternal mental health continuous	4	8904	Std. Mean Difference (IV, Random, 95% CI)	-0.07 [-0.15, 0.00]
1.1 CES-D mean score (0-60)	2	2232	Std. Mean Difference (IV, Random, 95% CI)	-0.10 [-0.18, -0.01]
1.2 CES-D mean score (0-33)	2	6672	Std. Mean Difference (IV, Random, 95% CI)	-0.06 [-0.18, 0.06]
2 Maternal mental health dichotomous	2		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
2.1 CES-D at high risk (% ≥ 23/60)	1	1475	Risk Ratio (M-H, Random, 95% CI)	0.94 [0.73, 1.20]
2.2 Miserable or depressed often or always (%)	1	1365	Risk Ratio (M-H, Random, 95% CI)	1.25 [0.98, 1.59]

Comparison 4. Time point 1 Maternal physical health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 In poor health (%)	1	311	Risk Ratio (M-H, Random, 95% CI)	0.85 [0.54, 1.36]

Comparison 5. Time point 2 Maternal physical health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 In good or excellent health (%)	2	2551	Risk Ratio (M-H, Random, 95% CI)	1.06 [0.95, 1.18]

Comparison 6. Time point 3 Maternal physical health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Self-reported health (1-5)	1	553	Std. Mean Difference (IV, Random, 95% CI)	0.16 [-0.01, 0.33]
2 In good or very good health (%)	1	1854	Risk Ratio (M-H, Random, 95% CI)	0.97 [0.91, 1.04]

Comparison 7. Time point 1 Child mental health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Child behaviour problems continuous	2		Std. Mean Difference (IV, Random, 95% CI)	Subtotals only
1.1 Problem Behavior Scale (1-5)	1	563	Std. Mean Difference (IV, Random, 95% CI)	-0.17 [-0.34, -0.01]
1.2 Behavior Problems Index (0-2)	1	2762	Std. Mean Difference (IV, Random, 95% CI)	0.01 [-0.06, 0.09]
2 Child behaviour problems dichotomous	2		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
2.1 One or more behavior disorders (Survey Diagnostic Instrument) (%)	1	178	Risk Ratio (M-H, Random, 95% CI)	1.58 [0.48, 5.24]
2.2 Behavior Problems Index (% with problems)	1	311	Risk Ratio (M-H, Random, 95% CI)	1.58 [0.92, 2.72]

Comparison 8. Time point 2 Child mental health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Child behaviour problems continuous	5	7560	Std. Mean Difference (IV, Random, 95% CI)	-0.04 [-0.08, 0.01]
1.1 Behavioral Problems Index (0-56)	3	4107	Std. Mean Difference (IV, Random, 95% CI)	-0.05 [-0.12, 0.01]
1.2 Behavior Problems Scale (1-3)	1	3201	Std. Mean Difference (IV, Random, 95% CI)	-0.03 [-0.10, 0.04]
1.3 Survey Diagnostic Instrument Conduct Disorder (0-30)	1	252	Std. Mean Difference (IV, Random, 95% CI)	0.06 [-0.21, 0.32]
2 Adolescent mental health dichotomous	1		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
2.1 Adolescent CES-D at risk (% ≥ 8/30)	1	1417	Risk Ratio (M-H, Random, 95% CI)	0.97 [0.87, 1.08]
3 Child Behavior Checklist (1-3)			Other data	No numeric data

Comparison 9. Time point 3 Child mental health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Child behaviour problems continuous	3	3643	Std. Mean Difference (IV, Random, 95% CI)	-0.05 [-0.16, 0.05]
1.1 Behavior Problems Scale (1-3)	1	1134	Std. Mean Difference (IV, Random, 95% CI)	0.04 [-0.07, 0.16]
1.2 Behavioral Problems Index (0-56)	1	1679	Std. Mean Difference (IV, Random, 95% CI)	-0.07 [-0.16, 0.03]
1.3 Problem Behavior Scale (1-5)	1	830	Std. Mean Difference (IV, Random, 95% CI)	-0.15 [-0.29, -0.02]
2 Child behaviour problem continuous excluding SSP Applicants	2	2509	Std. Mean Difference (IV, Random, 95% CI)	-0.10 [-0.18, -0.01]
2.1 Behavioral Problems Index (0-56)	1	1679	Std. Mean Difference (IV, Random, 95% CI)	-0.07 [-0.16, 0.03]
2.2 Problem behavior scale (1-5)	1	830	Std. Mean Difference (IV, Random, 95% CI)	-0.15 [-0.29, -0.02]
3 NEWWS 2001 Child mental health	1		Std. Mean Difference (IV, Random, 95% CI)	Subtotals only
3.1 BPI Externalising subscore (0-18)	1	2124	Std. Mean Difference (IV, Random, 95% CI)	-0.12 [-0.21, -0.03]
3.2 BPI Internalising subscore (0-24)	1	2124	Std. Mean Difference (IV, Random, 95% CI)	-0.04 [-0.13, 0.04]
3.3 BPI Hyperactivity subscore (0-18)	1	2124	Std. Mean Difference (IV, Random, 95% CI)	0.03 [-0.06, 0.12]
4 IFIP Behavioral Problems Index (0-56)			Other data	No numeric data
5 SSP-R T3 Behavior Problems Scale (1-3)			Other data	No numeric data

Comparison 10. Time point 1 Child physical health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 General health rating (1-5)	1	2762	Std. Mean Difference (IV, Random, 95% CI)	-0.05 [-0.12, 0.03]

Comparison 11. Time point 2 Child physical health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Child physical health continuous	3	7195	Std. Mean Difference (IV, Random, 95% CI)	0.07 [-0.01, 0.12]
1.1 General health scale (1-5)	2	2577	Std. Mean Difference (IV, Random, 95% CI)	0.11 [-0.03, 0.19]
1.2 Child average health scale (1-5 across 4-item instrument)	1	4618	Std. Mean Difference (IV, Random, 95% CI)	0.03 [-0.03, 0.09]
2 Child physical health dichotomous	1		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
2.1 In good or excellent health	1	1900	Risk Ratio (M-H, Random, 95% CI)	0.98 [0.93, 1.02]

Comparison 12. Time point 3 Child physical health

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Child physical health continuous	5	8083	Std. Mean Difference (IV, Random, 95% CI)	0.01 [-0.04, 0.06]
1.1 Health status scale (1-5)	1	1679	Std. Mean Difference (IV, Random, 95% CI)	0.0 [-0.10, 0.10]
1.2 Overall health scale (1-5)	1	850	Std. Mean Difference (IV, Random, 95% CI)	0.09 [-0.04, 0.23]
1.3 General health rating (1-5)	1	2124	Std. Mean Difference (IV, Random, 95% CI)	-0.07 [-0.15, 0.02]
1.4 Child average health scale (1-5 across 4-item instrument)	2	3430	Std. Mean Difference (IV, Random, 95% CI)	0.04 [-0.03, 0.10]
2 Child physical health dichotomous	1		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
2.1 In fair or poor health (%)	1	1475	Risk Ratio (M-H, Random, 95% CI)	1.26 [0.73, 2.14]

Comparison 13. Time point 1 Employment status

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Currently employed (%)	3	3381	Risk Ratio (M-H, Random, 95% CI)	1.22 [1.12, 1.32]
2 Ever employed (%)	3	3818	Risk Ratio (M-H, Random, 95% CI)	1.14 [1.07, 1.21]
2.1 Ever employed since randomisation (18 months) (%)	1	311	Risk Ratio (M-H, Random, 95% CI)	1.17 [1.03, 1.34]
2.2 Ever employed year 2 (%)	1	745	Risk Ratio (M-H, Random, 95% CI)	1.09 [1.03, 1.15]
2.3 Ever employed since randomisation (24 months) (%)	1	2762	Risk Ratio (M-H, Random, 95% CI)	1.17 [1.11, 1.24]

Comparison 14. Time point 2 Employment status

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Ever employed (%)	5	12274	Risk Ratio (M-H, Random, 95% CI)	1.13 [1.08, 1.19]
1.1 Ever employed since randomisation (36 months)	2	4845	Risk Ratio (M-H, Random, 95% CI)	1.14 [1.03, 1.26]
1.2 Average employment year of study	2	2577	Risk Ratio (M-H, Random, 95% CI)	1.10 [1.03, 1.17]
1.3 Employed at 33 months	1	4852	Risk Ratio (M-H, Random, 95% CI)	1.19 [1.10, 1.28]
2 Ever employed full-time since randomisation (%)	3	9806	Risk Ratio (M-H, Random, 95% CI)	1.20 [1.05, 1.37]
3 Ever employed full-time excluding MFIP (%)	2	8275	Risk Ratio (M-H, Random, 95% CI)	1.29 [1.18, 1.40]
4 Employed part-time (%)	3		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
4.1 Ever employed part-time since randomisation	2	4845	Risk Ratio (M-H, Random, 95% CI)	1.14 [1.04, 1.25]
4.2 Currently employed part-time	1	4852	Risk Ratio (M-H, Random, 95% CI)	0.80 [0.69, 0.93]

Comparison 15. Time point 3 Employment status

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Currently employed (%)	6	14355	Risk Ratio (M-H, Random, 95% CI)	1.03 [0.99, 1.07]
2 Ever employed (%)	3		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
2.1 Ever employed year 5	2	2599	Risk Ratio (M-H, Random, 95% CI)	1.01 [0.96, 1.06]
2.2 Ever employed years 1-5	1	2124	Risk Ratio (M-H, Random, 95% CI)	1.12 [1.08, 1.17]
3 Currently employed full-time (%)	6	13233	Risk Ratio (M-H, Random, 95% CI)	1.05 [1.00, 1.12]
4 Currently employed part-time (%)	5	12676	Risk Ratio (M-H, Random, 95% CI)	0.93 [0.85, 1.01]

Comparison 16. Time point 1 Income

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Total income	2		Std. Mean Difference (IV, Random, 95% CI)	Subtotals only
1.1 Total income year 2 (USD)	1	744	Std. Mean Difference (IV, Random, 95% CI)	0.11 [-0.04, 0.25]
1.2 Total net household income in prior month (USD)	1	2762	Std. Mean Difference (IV, Random, 95% CI)	-0.08 [-0.15, -0.00]
2 Earnings	1		Std. Mean Difference (IV, Random, 95% CI)	Subtotals only

2.1 Average annual earnings year 2 (USD)	1	744	Std. Mean Difference (IV, Random, 95% CI)	0.07 [-0.08, 0.21]
3 NEWWS T1 Average earnings previous month (USD)			Other data	No numeric data

Comparison 17. Time point 2 Income

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Total income	4	8934	Std. Mean Difference (IV, Random, 95% CI)	0.10 [0.02, 0.17]
1.1 Average annual income (benefits, earnings and food stamps) years 3-4 (USD)	1	1469	Std. Mean Difference (IV, Random, 95% CI)	-0.01 [-0.11, 0.09]
1.2 Average total income (benefits, earnings and food stamps) year 4 (USD)	1	1108	Std. Mean Difference (IV, Random, 95% CI)	0.08 [-0.04, 0.20]
1.3 Average annual income (benefits and earnings) year 3 (USD)	1	1531	Std. Mean Difference (IV, Random, 95% CI)	0.14 [0.03, 0.24]
1.4 Total monthly individual income (average from all sources in 6 months prior to 3-year survey) (CAD)	1	4826	Std. Mean Difference (IV, Random, 95% CI)	0.15 [0.10, 0.21]
2 Total income excluding CJF	3	7465	Std. Mean Difference (IV, Random, 95% CI)	0.14 [0.09, 0.18]
2.1 Average total income from earnings, AFDC/TANF and food stamps year 4 (USD)	1	1108	Std. Mean Difference (IV, Random, 95% CI)	0.08 [-0.04, 0.20]
2.2 Average annual income welfare/earnings year 3 (USD)	1	1531	Std. Mean Difference (IV, Random, 95% CI)	0.14 [0.03, 0.24]
2.3 Total monthly individual income 6 months prior to 3-year survey (CAD)	1	4826	Std. Mean Difference (IV, Random, 95% CI)	0.15 [0.10, 0.21]
3 Average earnings in year of survey (USD)	2	6321	Std. Mean Difference (IV, Random, 95% CI)	0.09 [0.04, 0.13]
4 MFIP Average annual earnings years 1-3 (USD)			Other data	No numeric data
5 GAIN Average weekly earnings since randomisation (USD)			Other data	No numeric data
6 FTP Average earnings in year of study (USD)			Other data	No numeric data

Comparison 18. Time point 3 Income

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Total income	5	11745	Std. Mean Difference (IV, Random, 95% CI)	0.01 [-0.04, 0.06]
1.1 Total household income month prior to survey, annualised (USD)	1	1679	Std. Mean Difference (IV, Random, 95% CI)	-0.03 [-0.13, 0.06]
1.2 Total income year 5 (USD)	1	745	Std. Mean Difference (IV, Random, 95% CI)	0.06 [-0.09, 0.20]
1.3 Total income years 1-5 (USD)	1	2124	Std. Mean Difference (IV, Random, 95% CI)	0.05 [-0.04, 0.14]
1.4 Total monthly individual income at 72 months (CAD)	1	2371	Std. Mean Difference (IV, Random, 95% CI)	0.07 [-0.01, 0.15]
1.5 Total monthly individual income (average in 6 months prior to month 54 (CAD)	1	4826	Std. Mean Difference (IV, Random, 95% CI)	-0.04 [-0.09, 0.02]
2 IFIP household income month prior to survey (USD)			Other data	No numeric data
3 Total earnings	5	11501	Std. Mean Difference (IV, Random, 95% CI)	0.04 [-0.00, 0.07]
3.1 Average earnings year 5 (USD)	1	745	Std. Mean Difference (IV, Random, 95% CI)	0.05 [-0.09, 0.20]
3.2 Average earnings year 6 (CAD)	1	2371	Std. Mean Difference (IV, Random, 95% CI)	0.08 [0.00, 0.16]
3.3 Average earnings year 5 (GBP)	1	1854	Std. Mean Difference (IV, Random, 95% CI)	0.06 [-0.04, 0.15]
3.4 Earnings month prior to survey, annualised (USD)	1	1679	Std. Mean Difference (IV, Random, 95% CI)	0.01 [-0.09, 0.11]
3.5 Monthly earnings year 5, quarter 18 (CAD)	1	4852	Std. Mean Difference (IV, Random, 95% CI)	0.01 [-0.05, 0.07]
4 IFIP Average earnings month prior to survey (USD)			Other data	No numeric data
5 NEWWS T3 Average earnings years 1-5 (USD)			Other data	No numeric data

Comparison 19. Time point 1 Welfare receipt

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Total AFDC received year 2 (USD)	1	744	Std. Mean Difference (IV, Random, 95% CI)	-0.10 [-0.24, 0.04]
2 Proportion of sample receiving welfare (%)	3	3714	Risk Ratio (M-H, Random, 95% CI)	0.88 [0.84, 0.92]
2.1 Received social assistance in last 12 months	1	207	Risk Ratio (M-H, Random, 95% CI)	0.85 [0.76, 0.97]
2.2 Currently receiving AFDC	1	2762	Risk Ratio (M-H, Random, 95% CI)	0.87 [0.83, 0.92]

2.3 Ever received AFDC/ TANF year 2	1	745	Risk Ratio (M-H, Random, 95% CI)	0.94 [0.84, 1.06]
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Comparison 20. Time point 2 Welfare receipt

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Average annual welfare benefit	4	8960	Std. Mean Difference (IV, Random, 95% CI)	-0.11 [-0.36, 0.15]
1.1 Average annual welfare benefit year 3 (USD)	1	1469	Std. Mean Difference (IV, Random, 95% CI)	-0.22 [-0.32, -0.11]
1.2 Average Income Assistance year 3 (CAD)	1	4852	Std. Mean Difference (IV, Random, 95% CI)	-0.18 [-0.24, -0.13]
1.3 Average annual welfare benefit year 3 (USD)	1	1531	Std. Mean Difference (IV, Random, 95% CI)	0.33 [0.22, 0.43]
1.4 Total AFDC/TANF received year 4 (USD)	1	1108	Std. Mean Difference (IV, Random, 95% CI)	-0.35 [-0.47, -0.23]
2 Average annual welfare benefit excluding MFIP	3	7429	Std. Mean Difference (IV, Random, 95% CI)	-0.24 [-0.33, -0.15]
2.1 Average annual welfare benefit year 3 (USD)	1	1469	Std. Mean Difference (IV, Random, 95% CI)	-0.22 [-0.32, -0.11]
2.2 Total AFDC/TANF received year 4 (USD)	1	1108	Std. Mean Difference (IV, Random, 95% CI)	-0.35 [-0.47, -0.23]
2.3 Average Income Assistance year 3 (USD/CAD)	1	4852	Std. Mean Difference (IV, Random, 95% CI)	-0.18 [-0.24, -0.13]
3 Proportion of sample receiving welfare	2	5210	Risk Ratio (M-H, Random, 95% CI)	0.87 [0.83, 0.91]
3.1 Social assistance/unemployment insurance receipt year 4 (%)	1	358	Risk Ratio (M-H, Random, 95% CI)	0.90 [0.71, 1.14]
3.2 Income Assistance receipt year 3 (%)	1	4852	Risk Ratio (M-H, Random, 95% CI)	0.87 [0.83, 0.90]

Comparison 21. Time point 3 Welfare receipt

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Total welfare benefit received	4	9822	Std. Mean Difference (IV, Random, 95% CI)	-0.06 [-0.11, -0.00]
1.1 Total AFDC/TANF receipt year 5 (USD)	1	745	Std. Mean Difference (IV, Random, 95% CI)	0.01 [-0.14, 0.15]
1.2 Average Income Assistance received year 6 (CAD)	1	2371	Std. Mean Difference (IV, Random, 95% CI)	-0.12 [-0.20, -0.04]
1.3 Average Income Support received per wk (GBP)	1	1854	Std. Mean Difference (IV, Random, 95% CI)	0.0 [-0.09, 0.09]

1.4 Average Income Assistance received year 5 (CAD)	1	4852	Std. Mean Difference (IV, Random, 95% CI)	-0.07 [-0.12, -0.01]
2 Total welfare payments years 1-5 (USD)	1	2124	Std. Mean Difference (IV, Random, 95% CI)	-0.55 [-0.63, -0.46]
3 IWRE TANF receipt month before survey, annualised year 5 (USD)			Other data	No numeric data
4 IFIP Average welfare received month prior to survey (USD)			Other data	No numeric data
5 Proportion of sample receiving welfare	6	12976	Risk Ratio (M-H, Random, 95% CI)	0.92 [0.86, 0.99]
5.1 Currently receiving TANF (%)	1	1679	Risk Ratio (M-H, Random, 95% CI)	0.79 [0.67, 0.93]
5.2 Ever received AFDC/TANF year 5 (%)	1	745	Risk Ratio (M-H, Random, 95% CI)	0.91 [0.64, 1.29]
5.3 Currently receiving Income Support or Jobseeker's Allowance (%)	1	1854	Risk Ratio (M-H, Random, 95% CI)	0.98 [0.87, 1.11]
5.4 Currently receiving Family Independence Payment (%)	1	1475	Risk Ratio (M-H, Random, 95% CI)	1.09 [0.89, 1.33]
5.5 Currently receiving Income Assistance (%)	1	2371	Risk Ratio (M-H, Random, 95% CI)	0.84 [0.72, 0.98]
5.6 Currently receiving Income Assistance (%)	1	4852	Risk Ratio (M-H, Random, 95% CI)	0.94 [0.89, 0.99]

Comparison 22. Time point 1 Health insurance

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Respondent has health insurance (%)	4		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
1.1 Respondent has Medicaid	2	606	Risk Ratio (M-H, Random, 95% CI)	1.16 [1.08, 1.25]
1.2 Respondent had any health insurance since randomisation (24 months)	1	590	Risk Ratio (M-H, Random, 95% CI)	1.09 [1.03, 1.16]
1.3 Respondent ever had employer-provided health insurance since randomisation (24 months)	1	2762	Risk Ratio (M-H, Random, 95% CI)	1.40 [1.16, 1.69]
2 Child health insurance (%)	1	2762	Risk Ratio (M-H, Random, 95% CI)	0.99 [0.96, 1.01]

Comparison 23. Time point 2 Health insurance

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Health insurance (%)	2		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
1.1 Respondent has Medicaid or other health insurance within 2-3 years of randomisation	1	2193	Risk Ratio (M-H, Random, 95% CI)	0.97 [0.93, 1.01]
1.2 Children have continuous health insurance for past 36 months	1	1531	Risk Ratio (M-H, Random, 95% CI)	1.16 [1.08, 1.24]

Comparison 24. Time point 3 Health insurance

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Health insurance	3		Risk Ratio (M-H, Random, 95% CI)	Subtotals only
1.1 Family has health insurance (%)	2	3599	Risk Ratio (M-H, Random, 95% CI)	0.98 [0.92, 1.05]
1.2 Respondent has health insurance (%)	1	561	Risk Ratio (M-H, Random, 95% CI)	0.97 [0.91, 1.04]
1.3 All focal children have health insurance (%)	1	561	Risk Ratio (M-H, Random, 95% CI)	0.95 [0.89, 1.02]

Comparison 25. New Hope 96 months

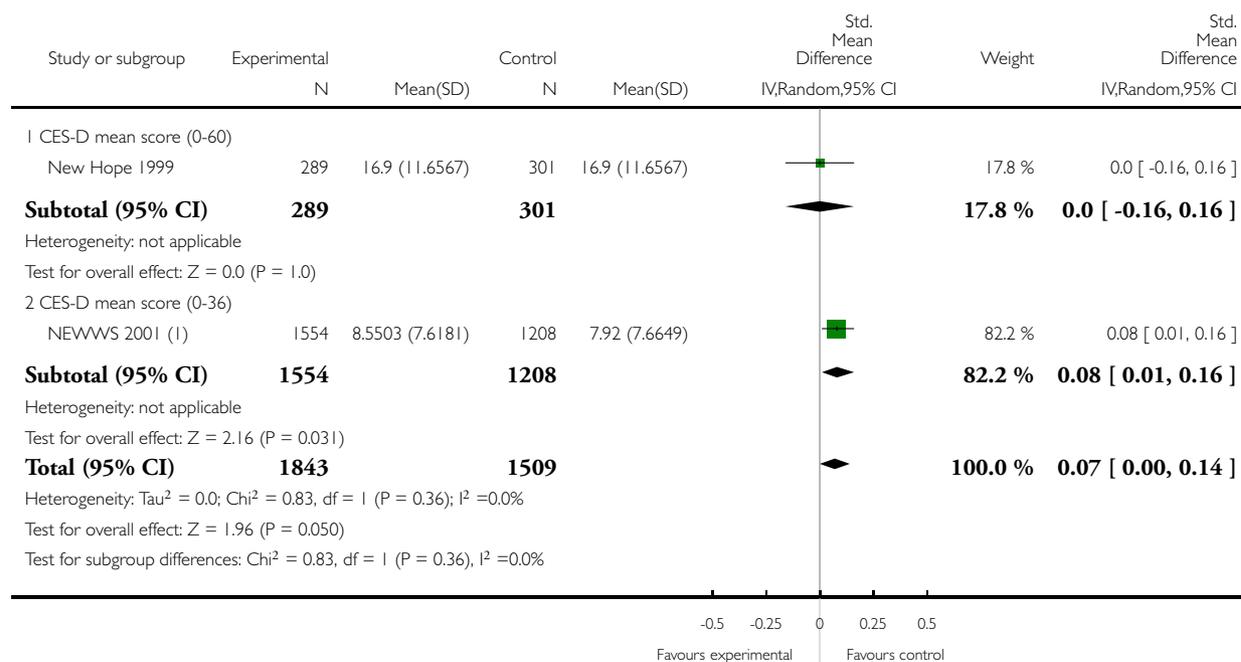
Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Maternal and child health outcomes			Other data	No numeric data

Analysis 1.1. Comparison 1 Time point 1 Maternal mental health, Outcome 1 Maternal mental health continuous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 1 Time point 1 Maternal mental health

Outcome: 1 Maternal mental health continuous



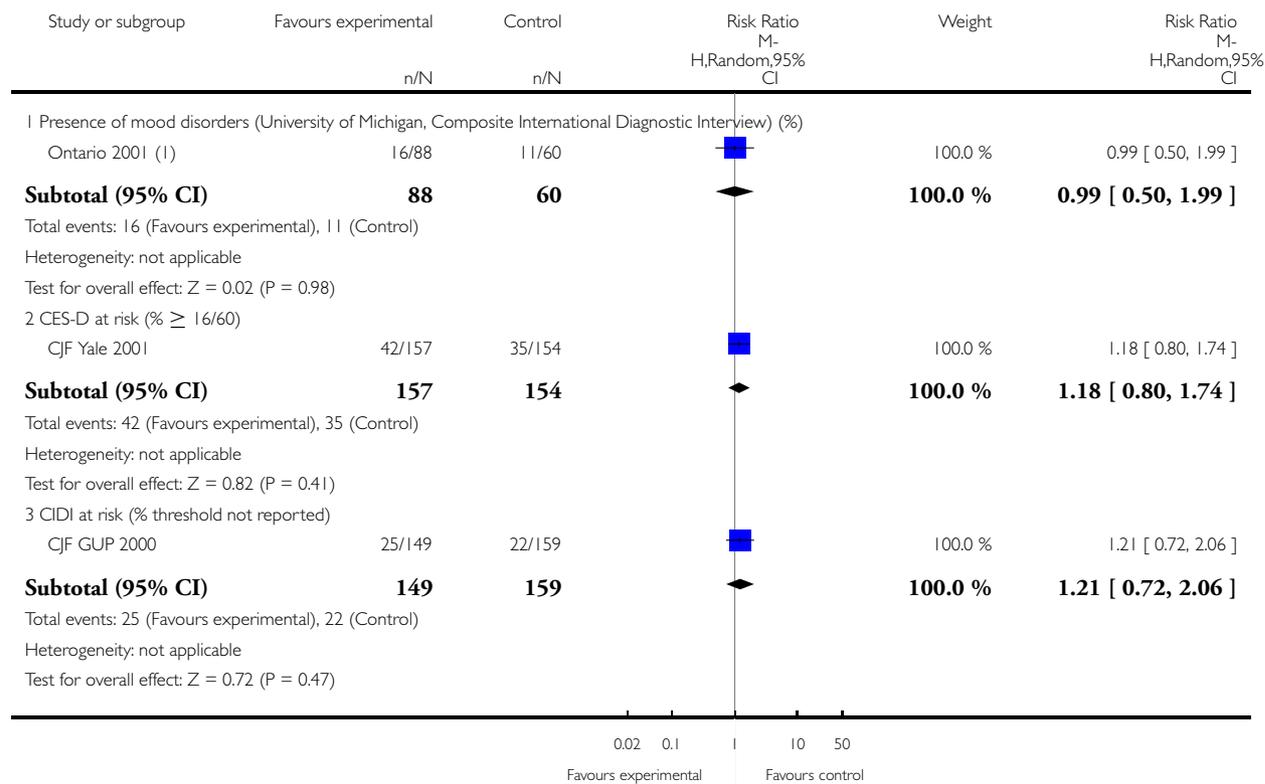
(1) At risk threshold = 10. Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 1.2. Comparison 1 Time point 1 Maternal mental health, Outcome 2 Maternal mental health dichotomous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 1 Time point 1 Maternal mental health

Outcome: 2 Maternal mental health dichotomous



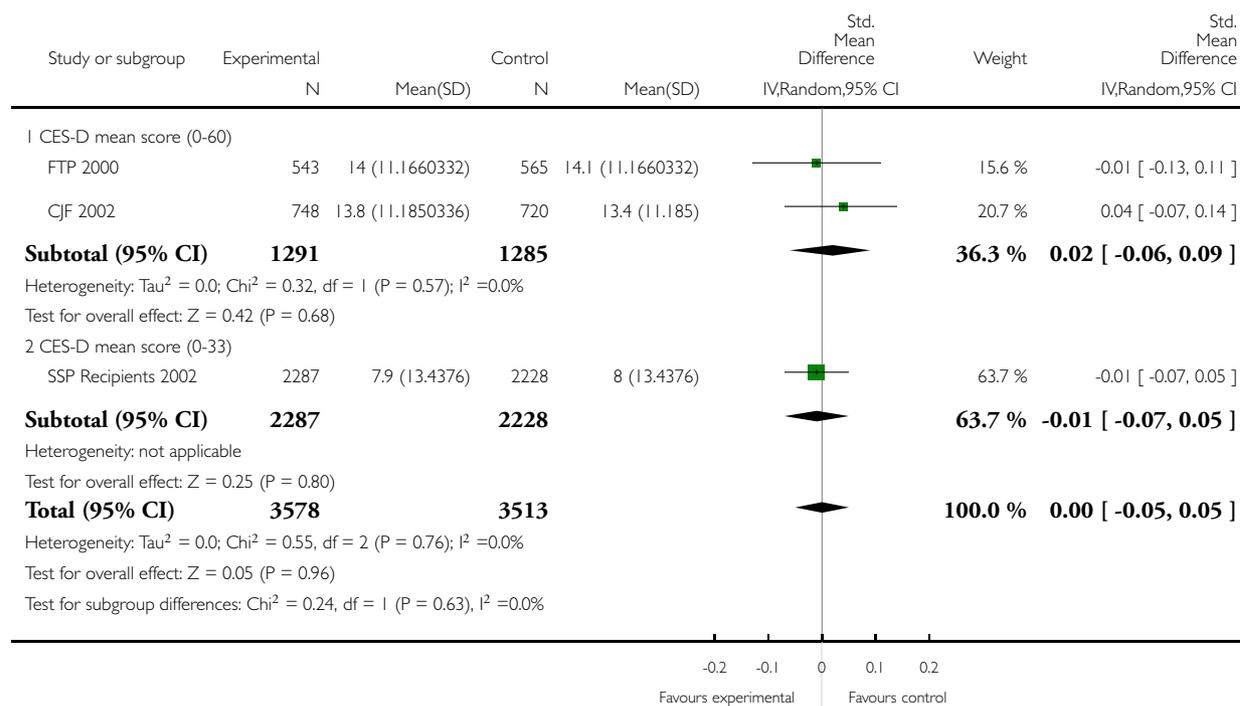
(1) Values for 2 intervention groups in Ontario combined.

Analysis 2.1. Comparison 2 Time point 2 Maternal mental health, Outcome 1 Maternal mental health continuous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 2 Time point 2 Maternal mental health

Outcome: 1 Maternal mental health continuous



Analysis 2.2. Comparison 2 Time point 2 Maternal mental health, Outcome 2 CJF GUP CES-D mean score (0-60).

CJF GUP CES-D mean score (0-60)

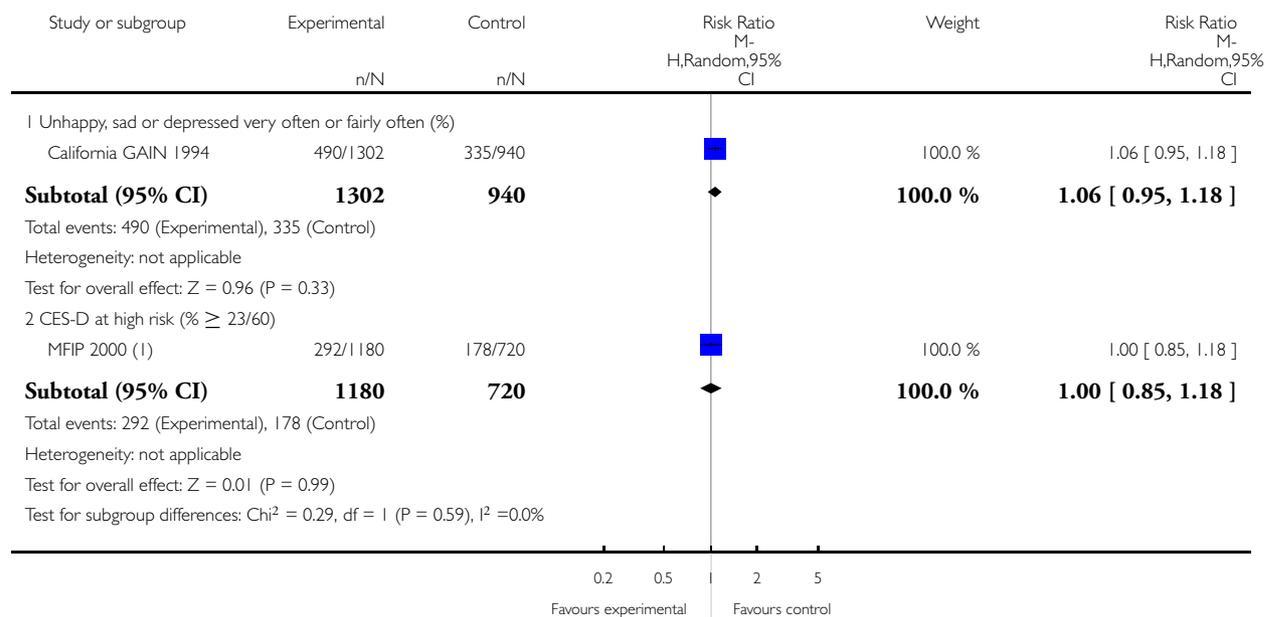
Study	Intervention	Int n	Control	Cont n	Total n	Sig
CJF GUP 2000	15.5	Not reported	13.9	Not reported	187	< 0.10

Analysis 2.3. Comparison 2 Time point 2 Maternal mental health, Outcome 3 Maternal mental health dichotomous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 2 Time point 2 Maternal mental health

Outcome: 3 Maternal mental health dichotomous



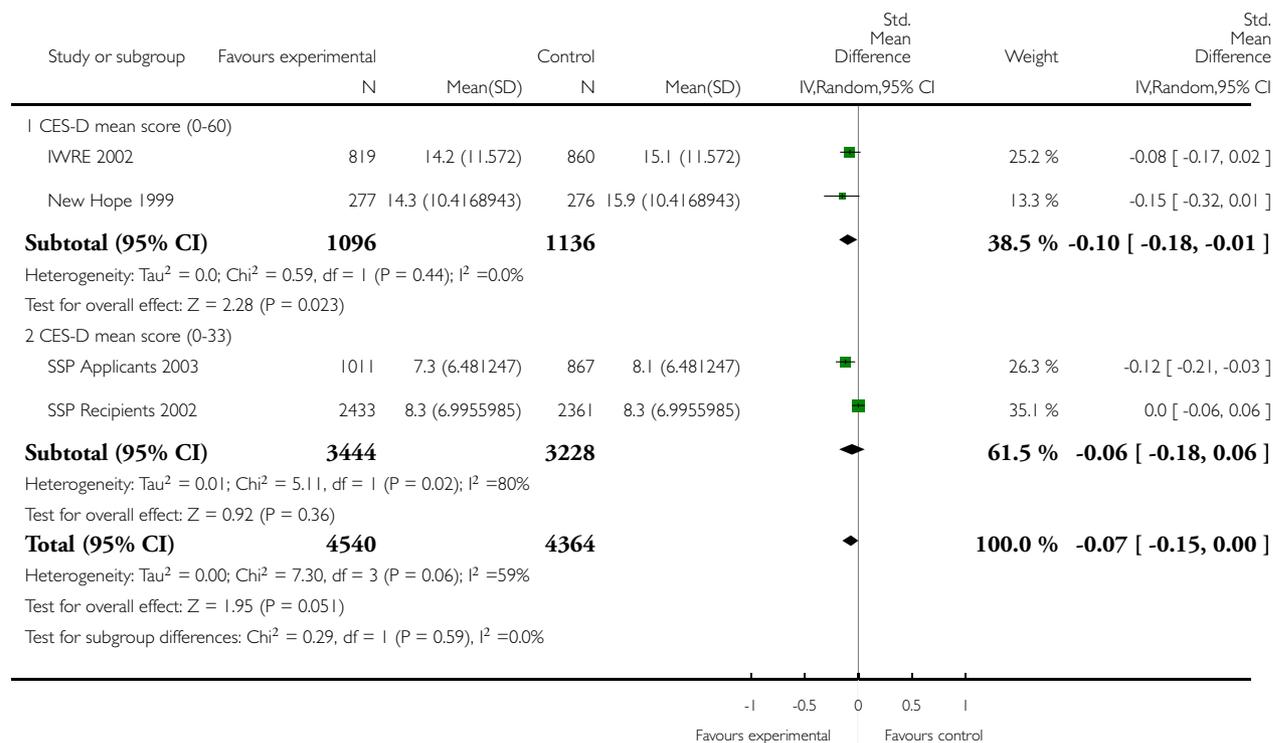
(1) Rural and urban long term and recent applicants from MFIP and MFIP-IO groups combined.

Analysis 3.1. Comparison 3 Time point 3 Maternal mental health, Outcome 1 Maternal mental health continuous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 3 Time point 3 Maternal mental health

Outcome: 1 Maternal mental health continuous

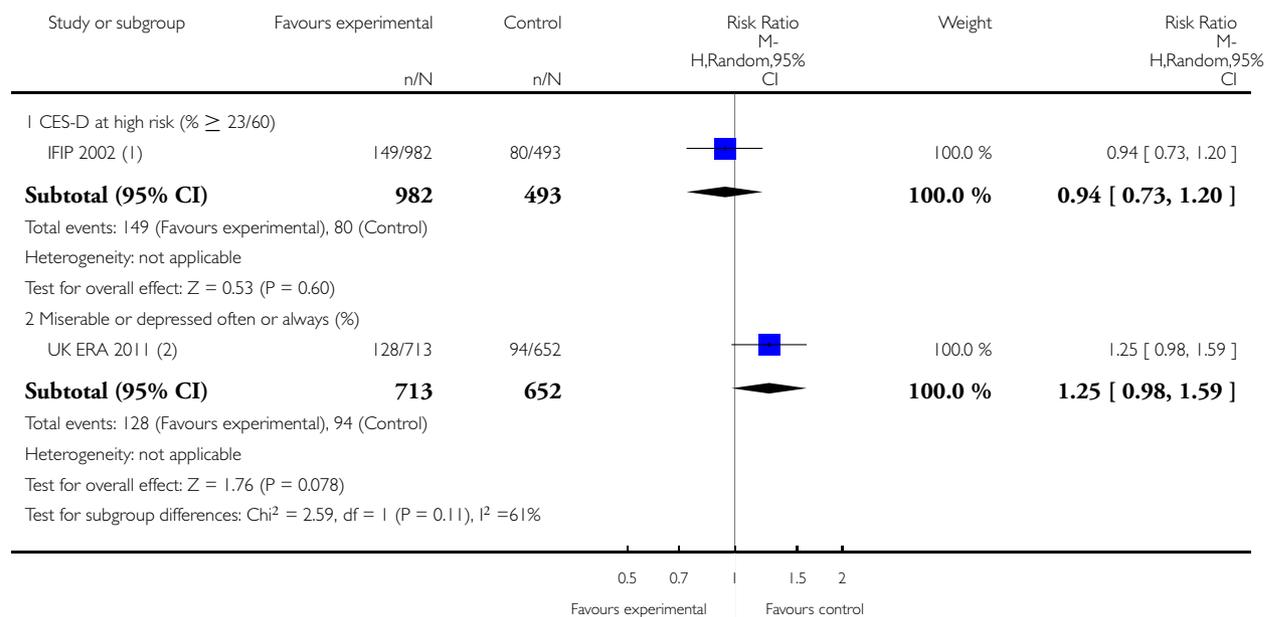


Analysis 3.2. Comparison 3 Time point 3 Maternal mental health, Outcome 2 Maternal mental health dichotomous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 3 Time point 3 Maternal mental health

Outcome: 2 Maternal mental health dichotomous



(1) Applicants and recipients groups combined.

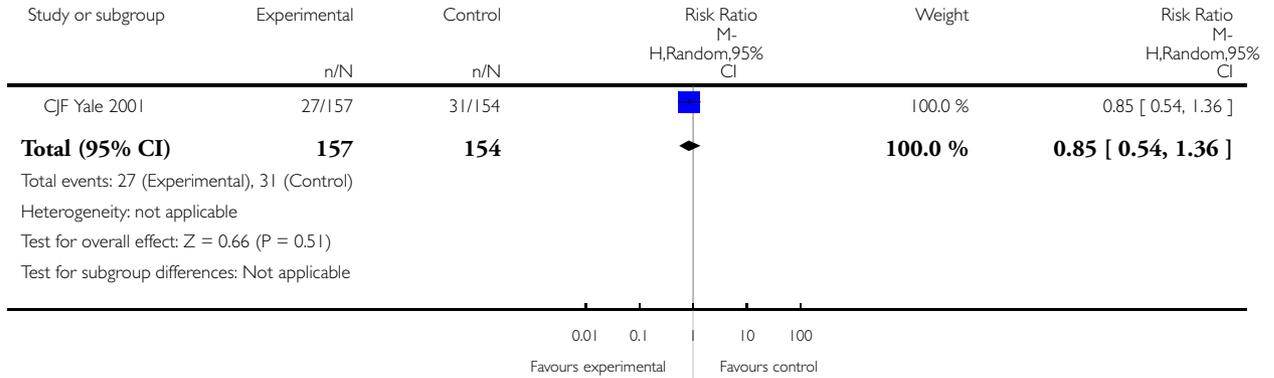
(2) Respondents with at least one child under 16 yrs. Percentage who report feeling miserable or depressed always or often.

Analysis 4.1. Comparison 4 Time point 1 Maternal physical health, Outcome 1 In poor health (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 4 Time point 1 Maternal physical health

Outcome: 1 In poor health (%)

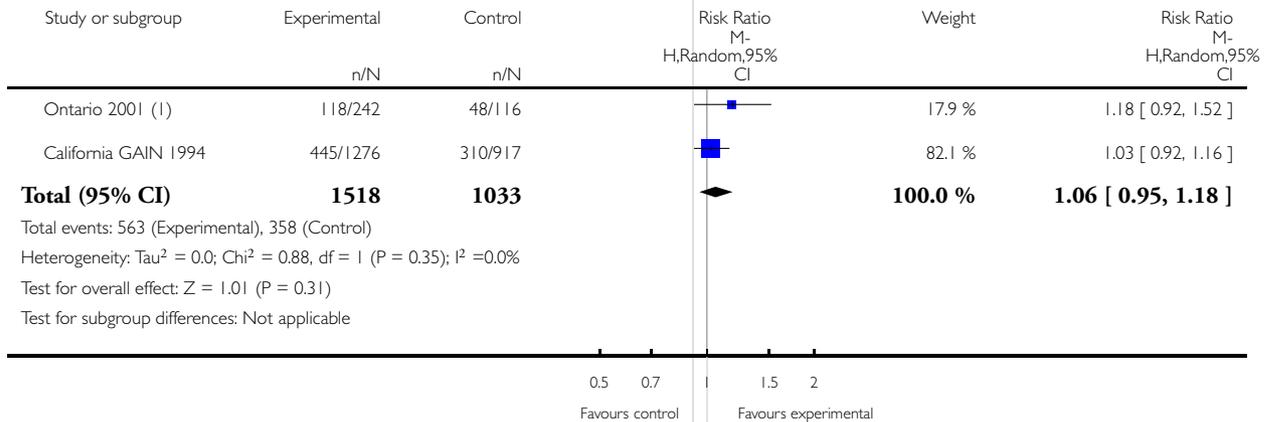


Analysis 5.1. Comparison 5 Time point 2 Maternal physical health, Outcome 1 In good or excellent health (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 5 Time point 2 Maternal physical health

Outcome: 1 In good or excellent health (%)



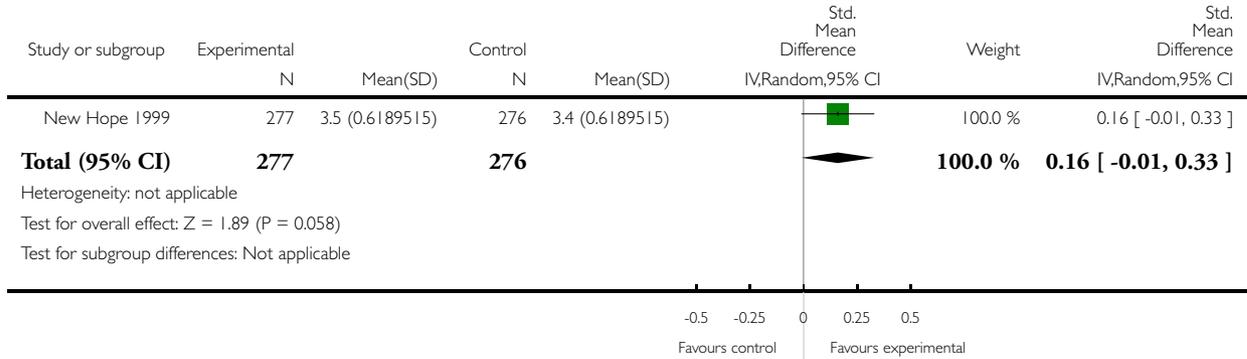
(1) Values for In excellent health and In good health summed.

Analysis 6.1. Comparison 6 Time point 3 Maternal physical health, Outcome 1 Self-reported health (1-5).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 6 Time point 3 Maternal physical health

Outcome: 1 Self-reported health (1-5)

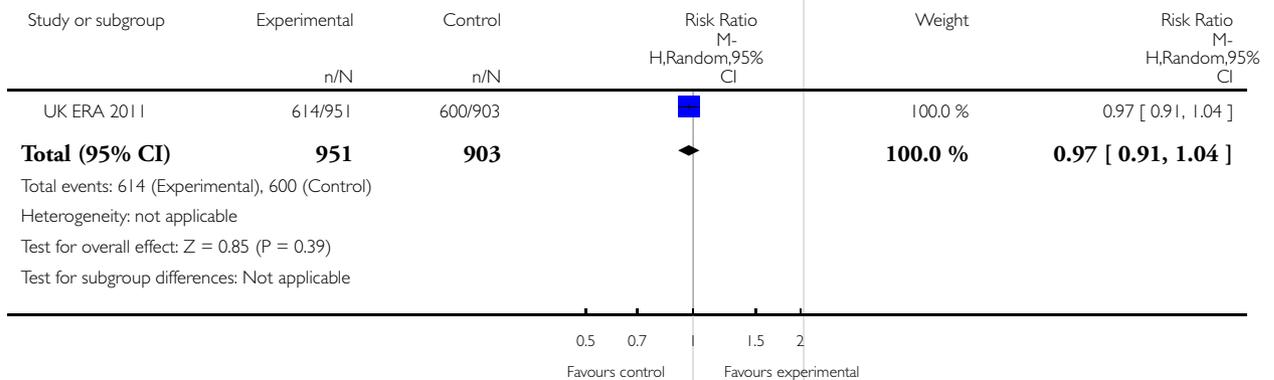


Analysis 6.2. Comparison 6 Time point 3 Maternal physical health, Outcome 2 In good or very good health (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 6 Time point 3 Maternal physical health

Outcome: 2 In good or very good health (%)

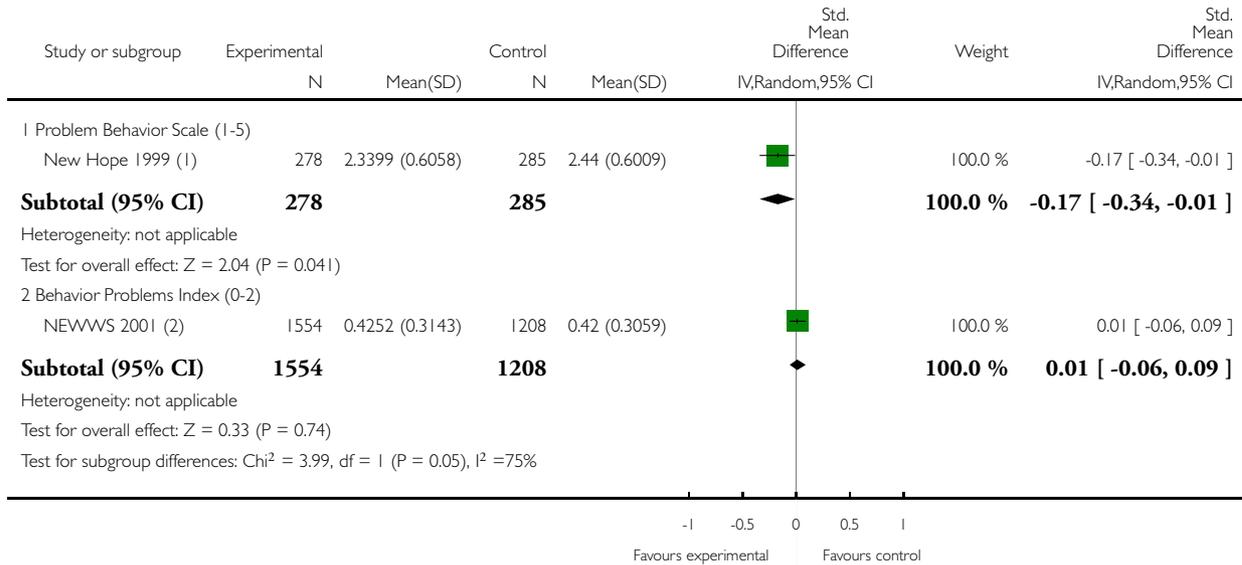


Analysis 7.1. Comparison 7 Time point 1 Child mental health, Outcome 1 Child behaviour problems continuous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 7 Time point 1 Child mental health

Outcome: 1 Child behaviour problems continuous



(1) Impacts for children aged 3-5 and 6-12 were combined

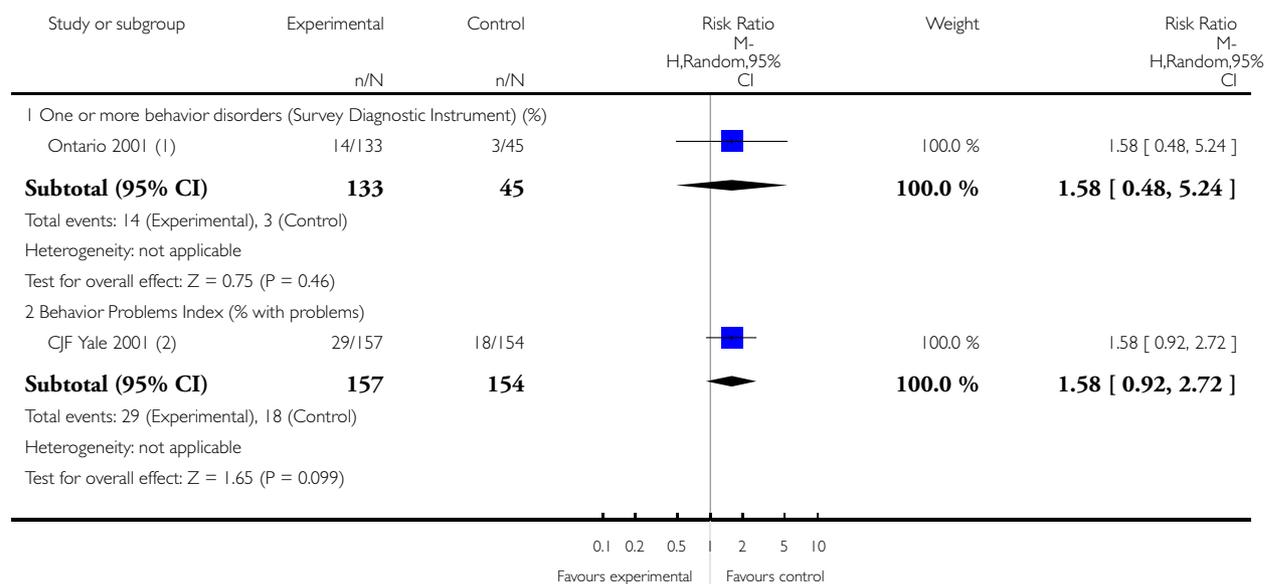
(2) Children aged 5-7. Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 7.2. Comparison 7 Time point 1 Child mental health, Outcome 2 Child behaviour problems dichotomous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 7 Time point 1 Child mental health

Outcome: 2 Child behaviour problems dichotomous



(1) Children aged 1.5-18. 2 intervention groups in Ontario combined. Values for 1, 2 and 3 behaviour disorders summed to produce single outcome.

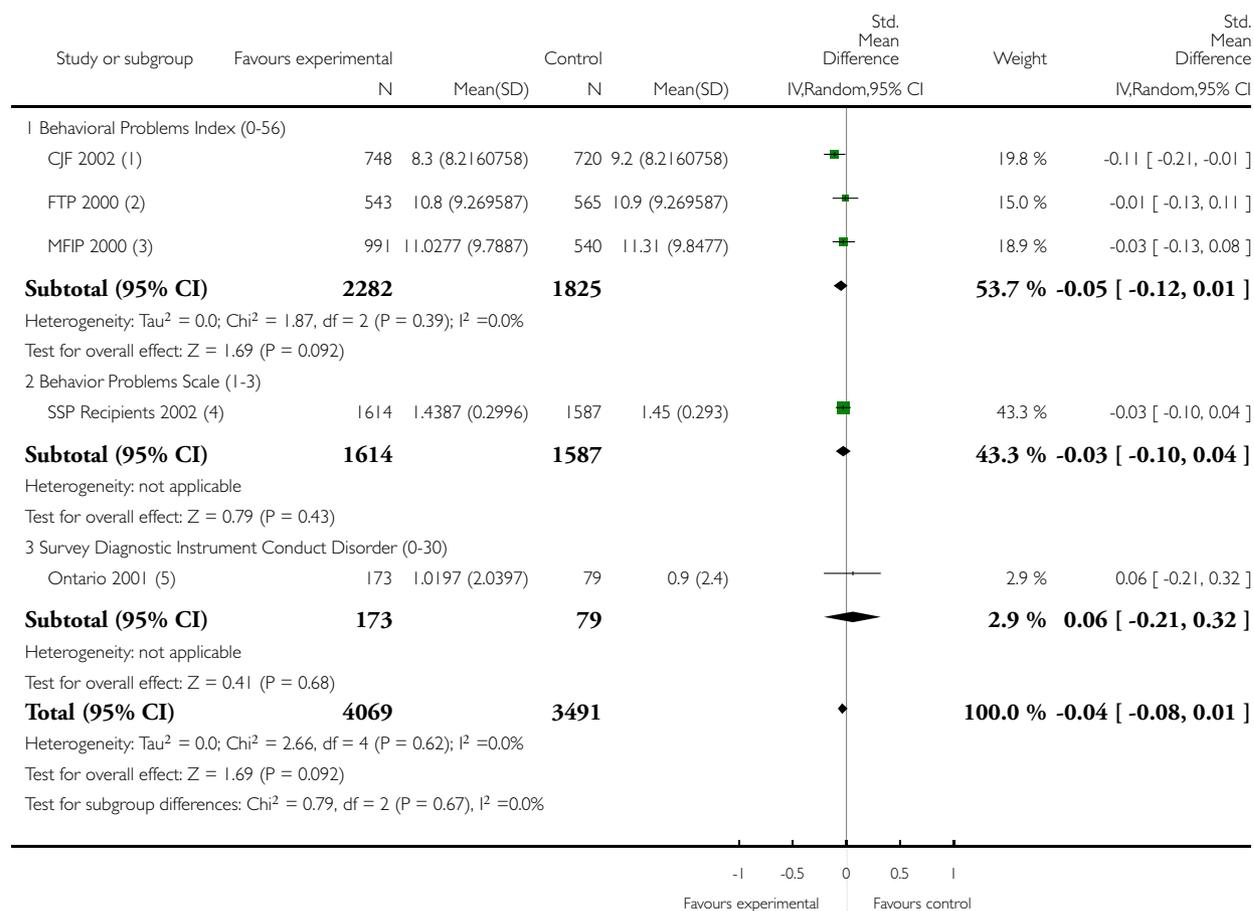
(2) Children aged 3-10.

Analysis 8.1. Comparison 8 Time point 2 Child mental health, Outcome 1 Child behaviour problems continuous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 8 Time point 2 Child mental health

Outcome: 1 Child behaviour problems continuous



(1) Children aged 5-12.

(2) Children aged 5-12.

(3) Children aged 5-12. Long term and recent applicants from MFIP and MFIP Incentives Only groups combined. Rural respondents excluded from analysis.

(4) Child age subgroups 3-5 and 6-11 combined.

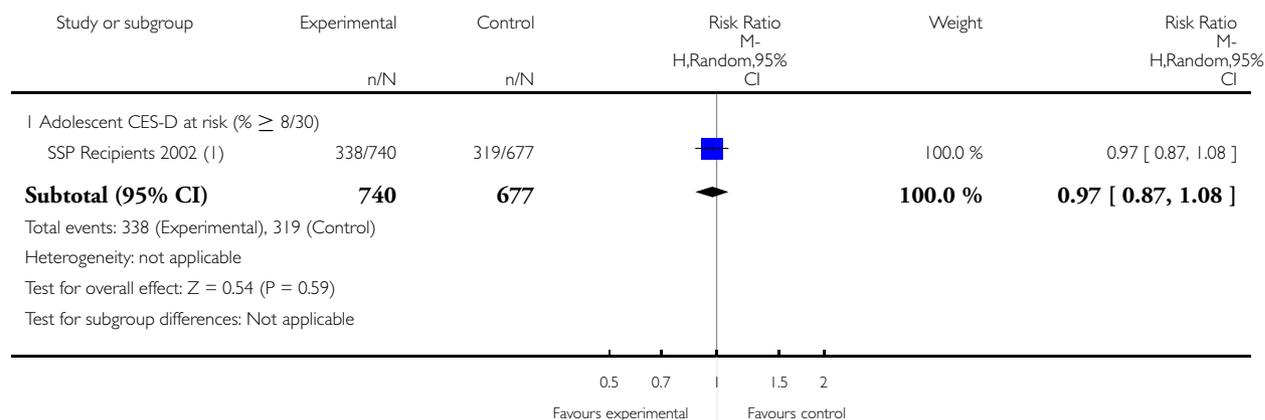
(5) Children aged 4-18. 2 intervention groups in Ontario combined.

Analysis 8.2. Comparison 8 Time point 2 Child mental health, Outcome 2 Adolescent mental health dichotomous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 8 Time point 2 Child mental health

Outcome: 2 Adolescent mental health dichotomous



(1) Child age subgroups 12-14 and 15-18 combined.

Analysis 8.3. Comparison 8 Time point 2 Child mental health, Outcome 3 Child Behavior Checklist (1-3). Child Behavior Checklist (1-3)

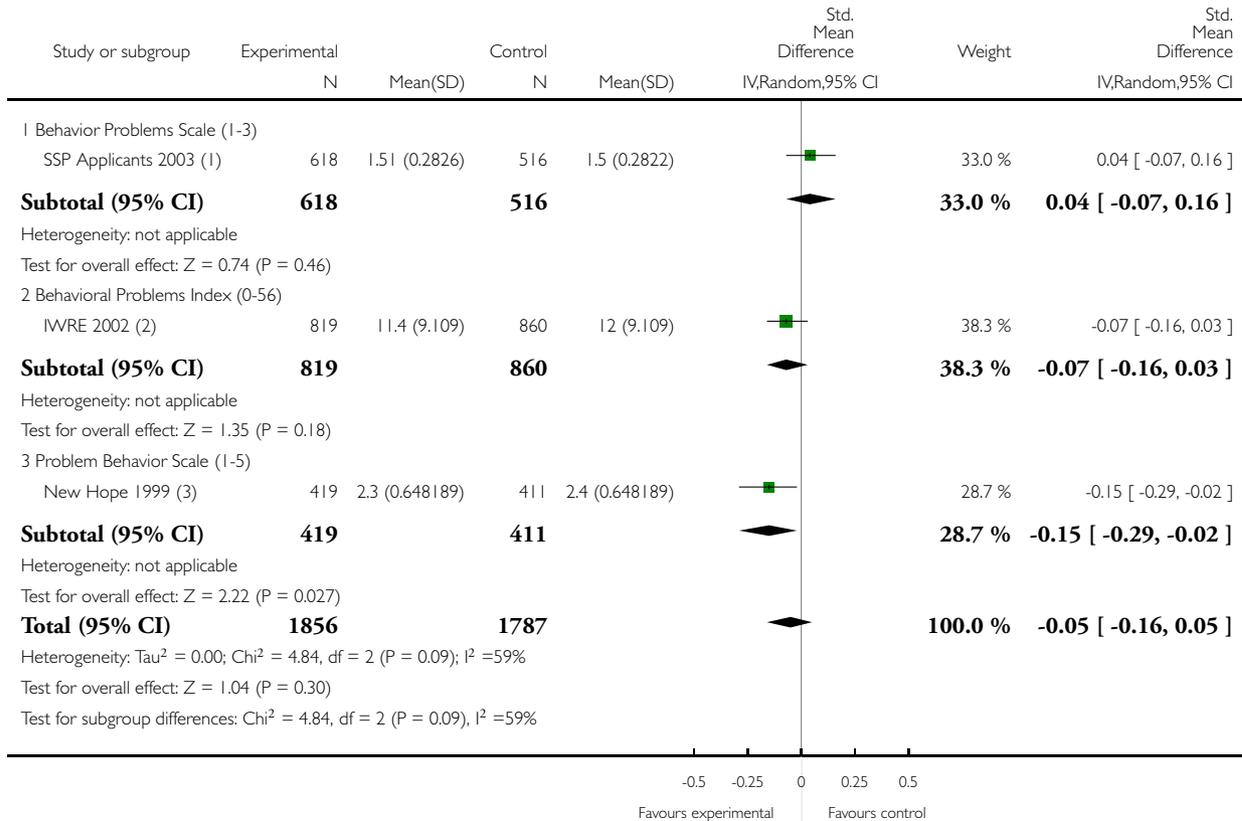
Study	Intervention	Int n	Control	Cont n	Total N
CJF GUP 2000	1.7	Not reported	1.6	Not reported	182

Analysis 9.1. Comparison 9 Time point 3 Child mental health, Outcome 1 Child behaviour problems continuous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 9 Time point 3 Child mental health

Outcome: 1 Child behaviour problems continuous



(1) Child age groups 6-8 and 9-14 combined.

(2) Children aged 5-12

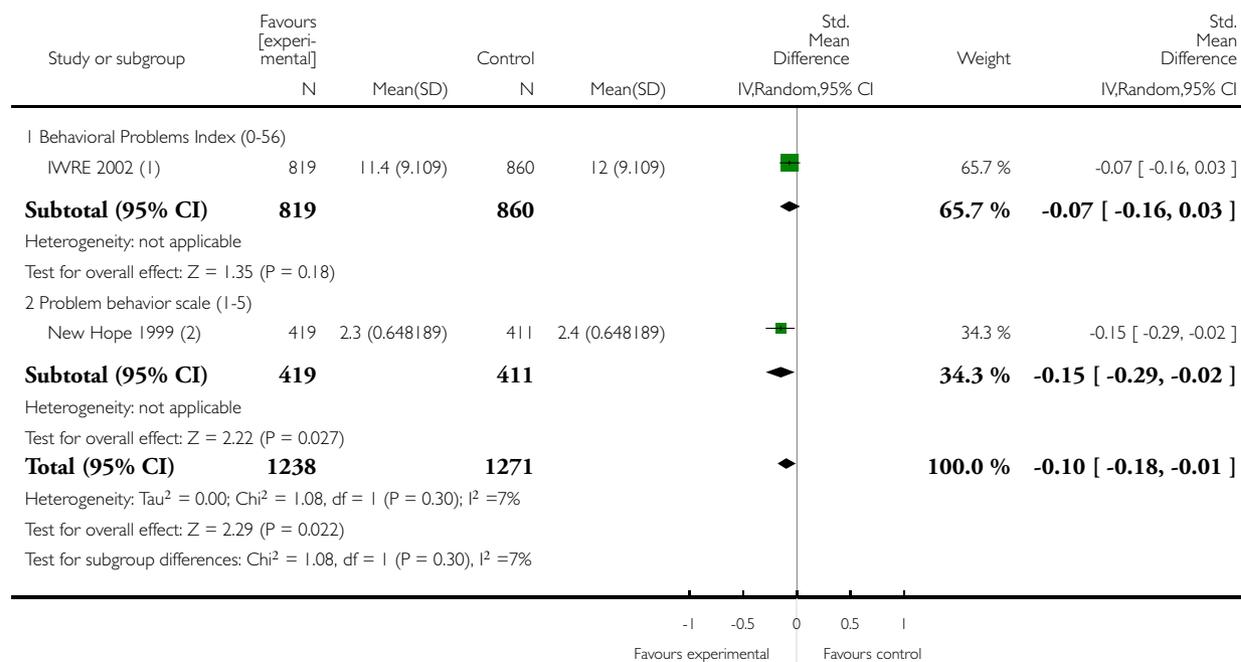
(3) Children aged 6-16

Analysis 9.2. Comparison 9 Time point 3 Child mental health, Outcome 2 Child behaviour problem continuous excluding SSP Applicants.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 9 Time point 3 Child mental health

Outcome: 2 Child behaviour problem continuous excluding SSP Applicants



(1) Children aged 5-12

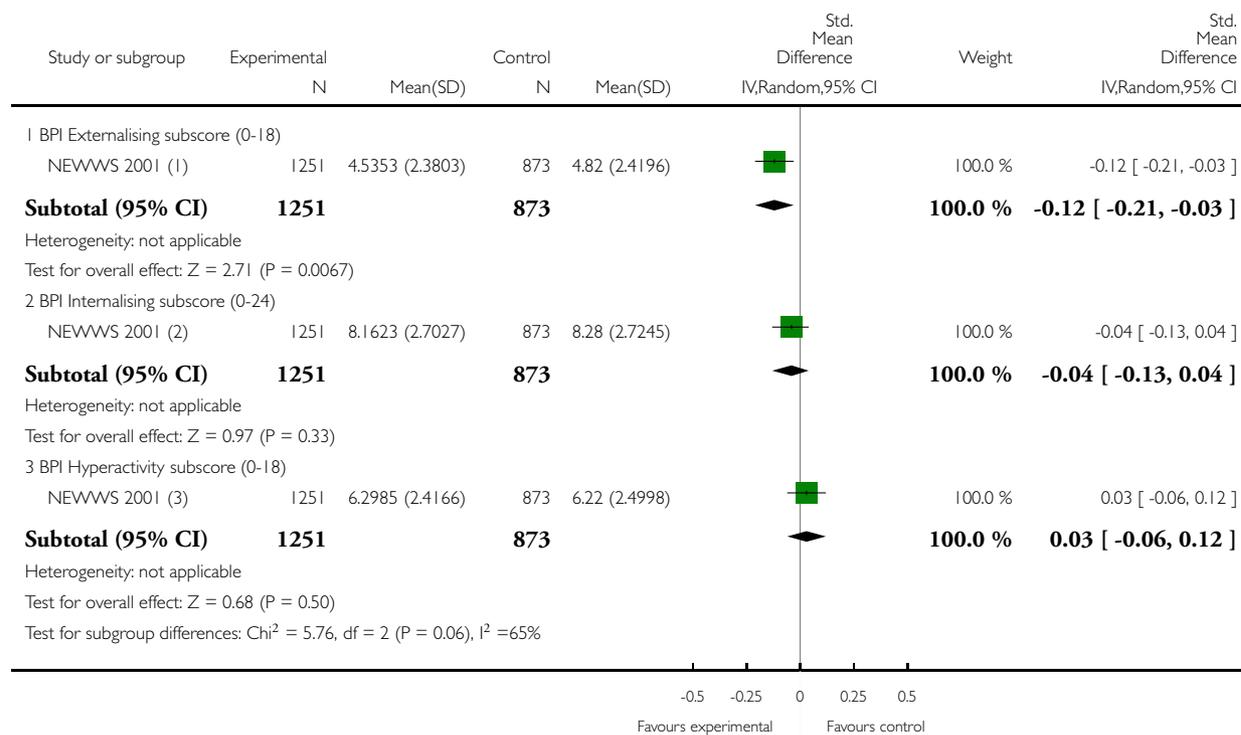
(2) Children aged 6-16

Analysis 9.3. Comparison 9 Time point 3 Child mental health, Outcome 3 NEWWS 2001 Child mental health.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 9 Time point 3 Child mental health

Outcome: 3 NEWWS 2001 Child mental health



(1) Children aged 8-10

(2) Children aged 8-10

(3) Children aged 8-10

Analysis 9.4. Comparison 9 Time point 3 Child mental health, Outcome 4 IFIP Behavioral Problems Index (0-56).

IFIP Behavioral Problems Index (0-56)

Study	Group	Intervention	Int n	Control	Cont n	Sig
IFIP 2002	Ongoing recipients	11.8	540	12.0	273	NS
IFIP 2002	Applicants	11.3	442	10.9	220	NS

Analysis 9.5. Comparison 9 Time point 3 Child mental health, Outcome 5 SSP-R T3 Behavior Problems Scale (1-3).

SSP-R T3 Behavior Problems Scale (1-3)

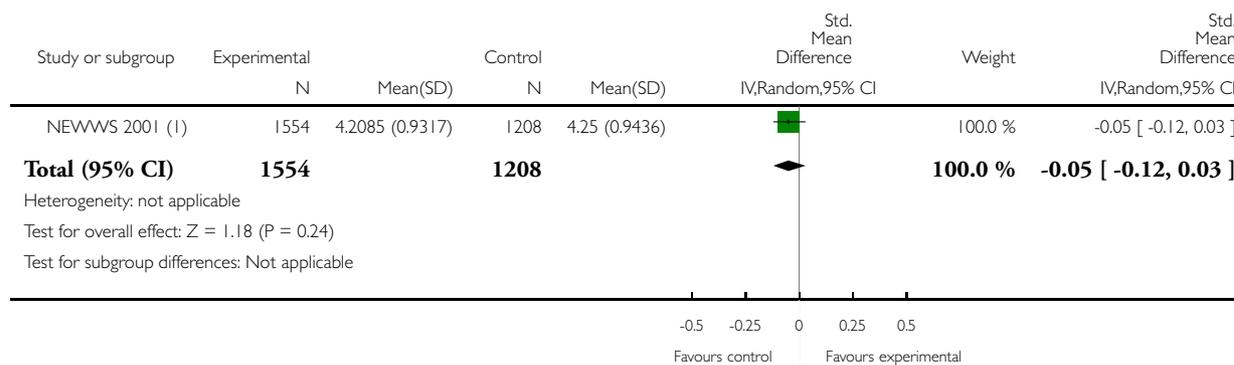
Study	Child age	Intervention	Int n	Control	Cont n	Sig.
SSP Recipients 2002	5.5-7.5 years at follow up	1.3	554	1.3	605	NS
SSP Recipients 2002	7.5-9.5 years at follow up	1.3	577	1.3	560	NS

Analysis 10.1. Comparison 10 Time point 1 Child physical health, Outcome 1 General health rating (1-5).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 10 Time point 1 Child physical health

Outcome: 1 General health rating (1-5)



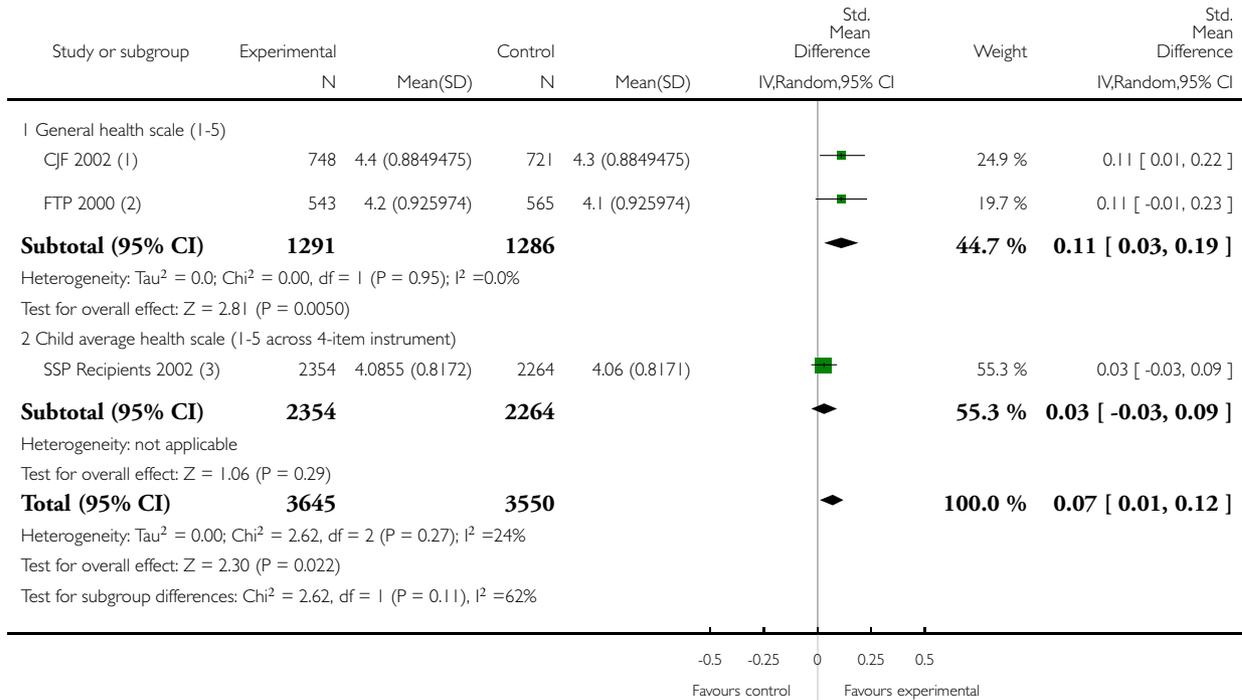
(1) Children aged 5-7. Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 11.1. Comparison 11 Time point 2 Child physical health, Outcome 1 Child physical health continuous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 11 Time point 2 Child physical health

Outcome: 1 Child physical health continuous



(1) Children aged 5-12

(2) Children aged 5-12

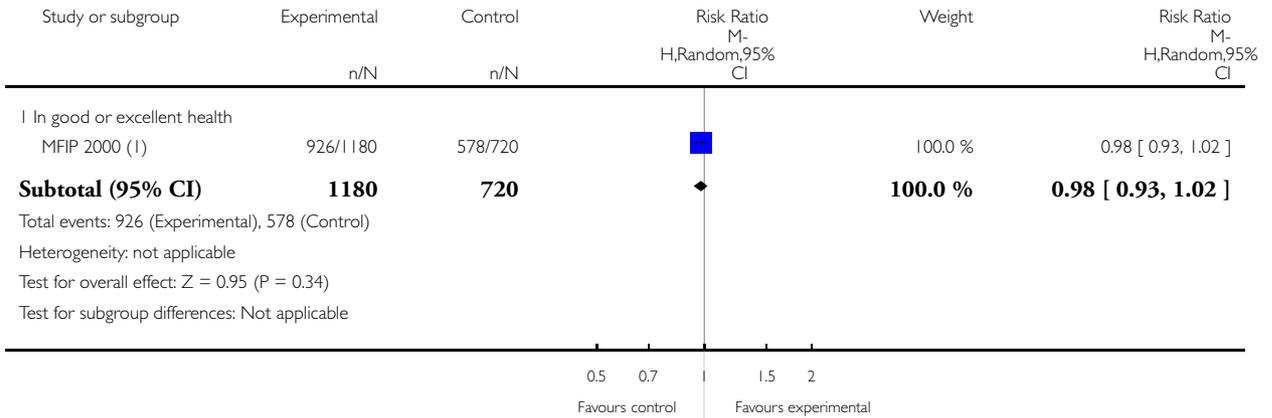
(3) Child age groups 3-5, 6-11, 12-18 combined.

Analysis 11.2. Comparison 11 Time point 2 Child physical health, Outcome 2 Child physical health dichotomous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 11 Time point 2 Child physical health

Outcome: 2 Child physical health dichotomous



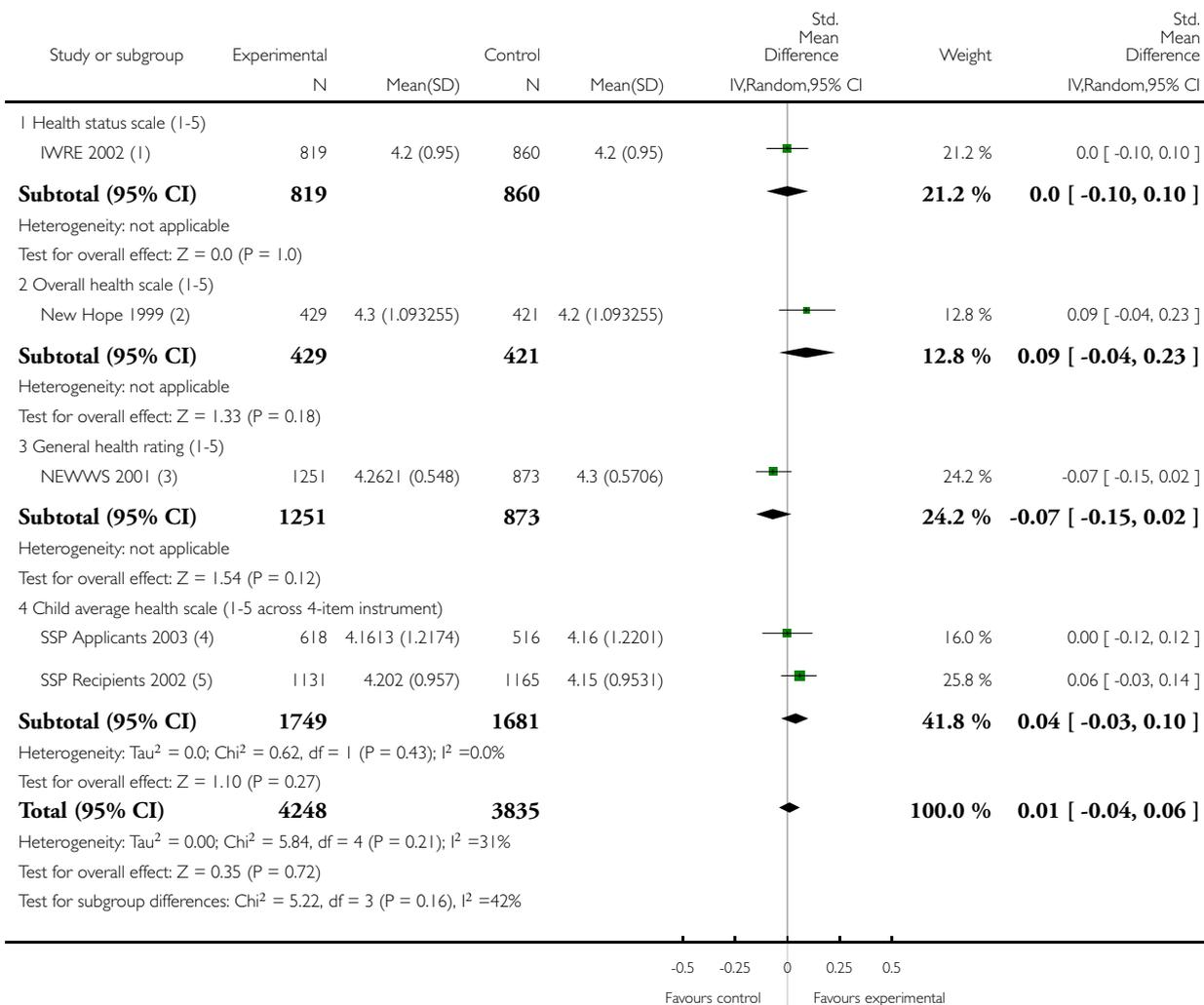
(1) Children aged 5-12. MFIP and MFIP-IO long term and recent urban and rural groups combined.

Analysis 12.1. Comparison 12 Time point 3 Child physical health, Outcome 1 Child physical health continuous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 12 Time point 3 Child physical health

Outcome: 1 Child physical health continuous



(1) Children aged 5-12

(2) Children aged 6-16

(3) Children aged 8-10. Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

(4) Child age groups 6-8 and 9-14 combined.

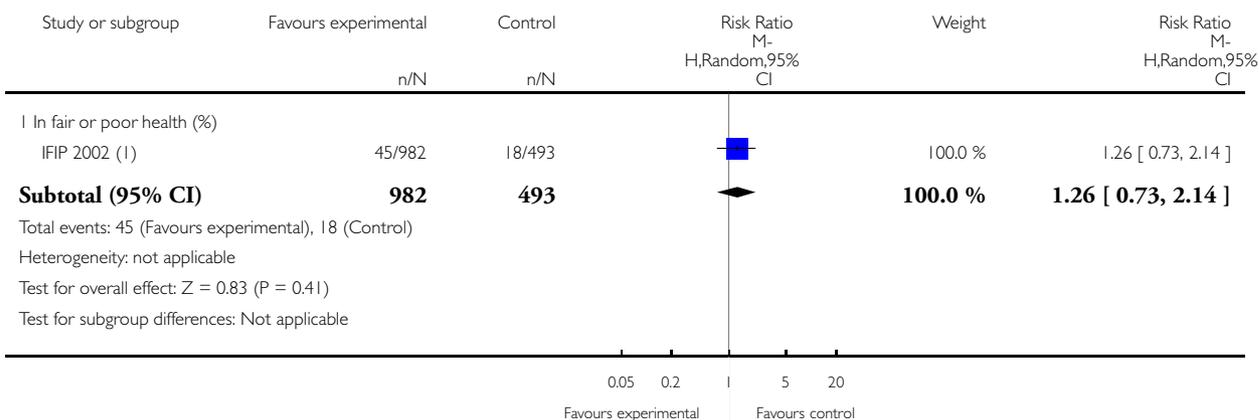
(5) Child age subgroups 5.5-7.5 and 7.5-9.5 combined.

Analysis 12.2. Comparison 12 Time point 3 Child physical health, Outcome 2 Child physical health dichotomous.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 12 Time point 3 Child physical health

Outcome: 2 Child physical health dichotomous



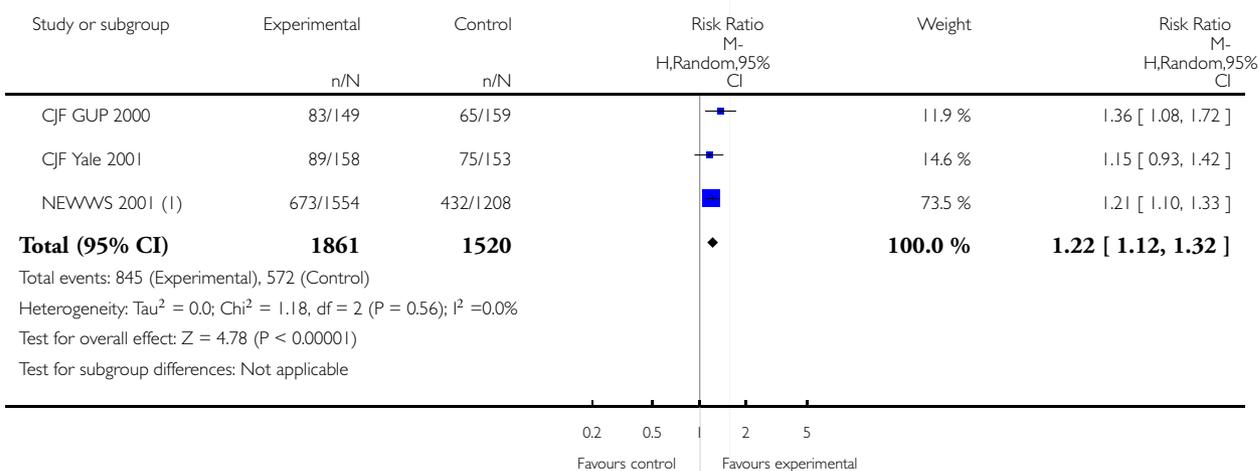
(I) Children aged 5-12. Applicants and recipients groups combined.

Analysis 13.1. Comparison 13 Time point 1 Employment status, Outcome 1 Currently employed (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 13 Time point 1 Employment status

Outcome: 1 Currently employed (%)



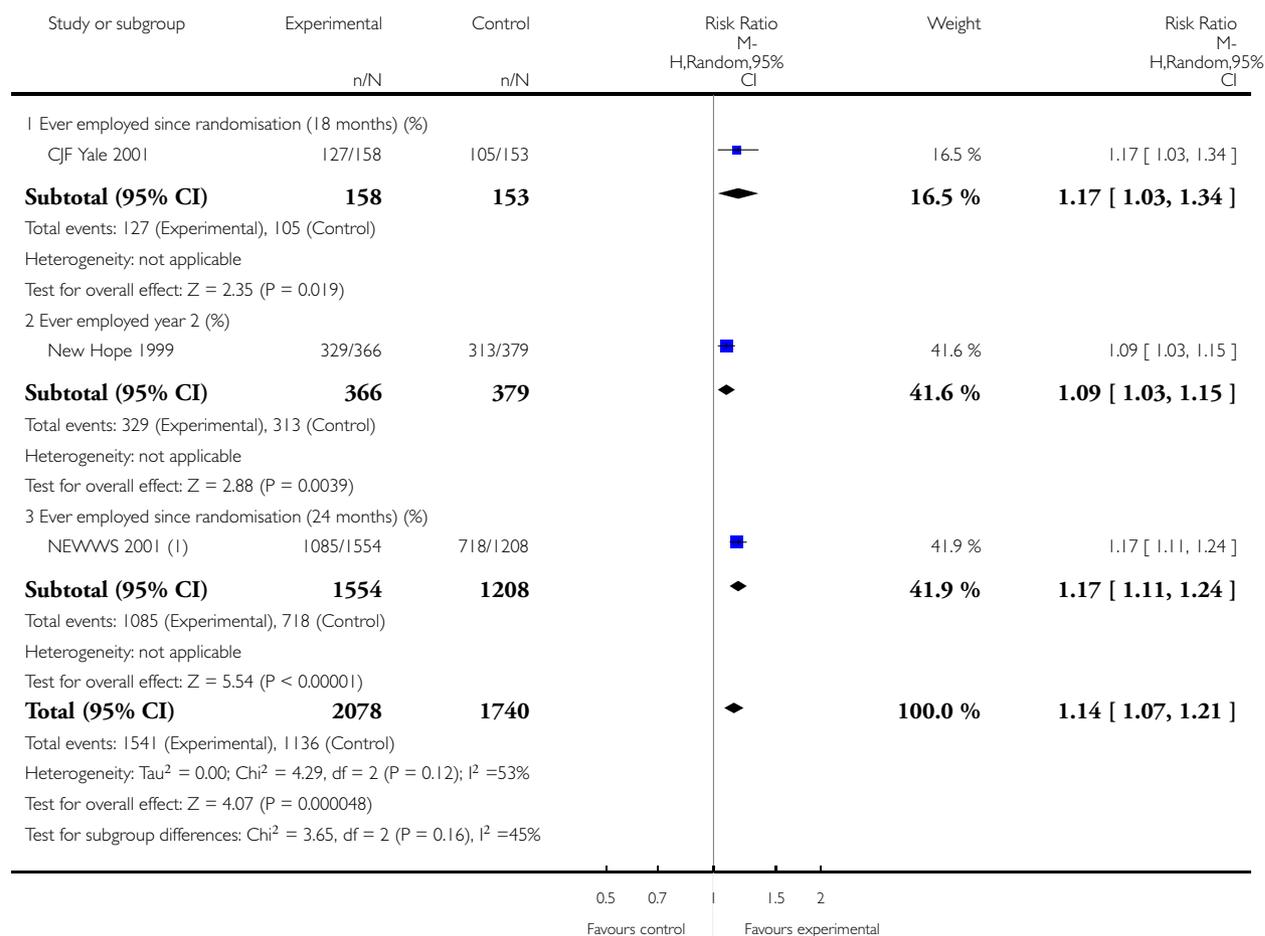
(I) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 13.2. Comparison 13 Time point 1 Employment status, Outcome 2 Ever employed (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 13 Time point 1 Employment status

Outcome: 2 Ever employed (%)



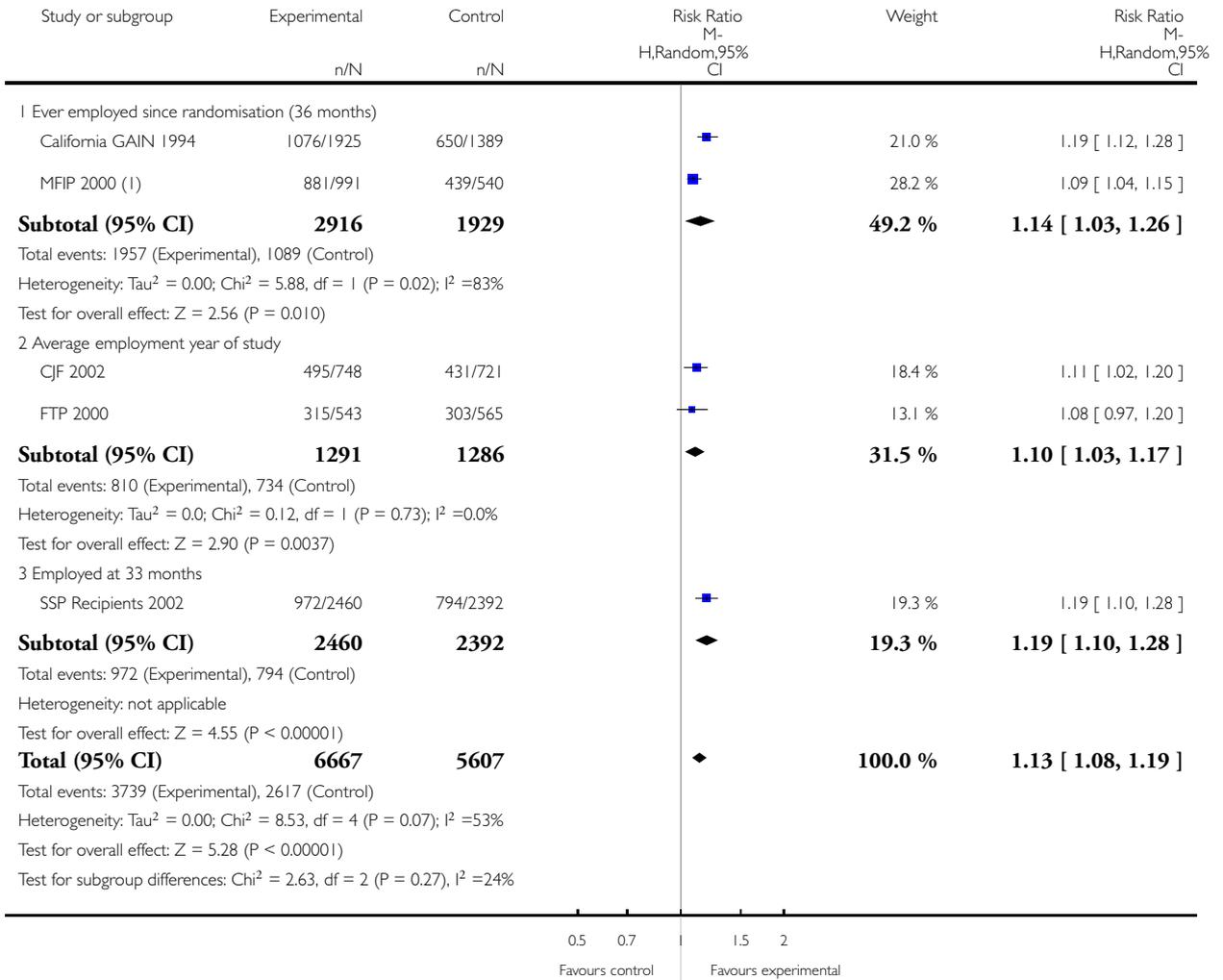
(I) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 14.1. Comparison 14 Time point 2 Employment status, Outcome 1 Ever employed (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 14 Time point 2 Employment status

Outcome: 1 Ever employed (%)



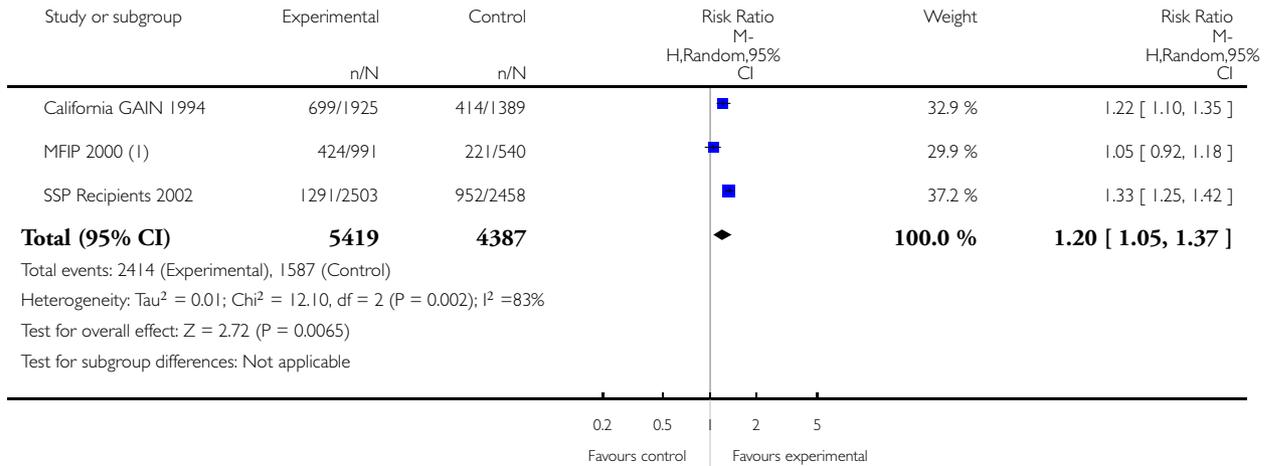
(1) MFIP and MFIP-IO long term and recent urban groups combined. Not reported for rural groups.

Analysis 14.2. Comparison 14 Time point 2 Employment status, Outcome 2 Ever employed full-time since randomisation (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 14 Time point 2 Employment status

Outcome: 2 Ever employed full-time since randomisation (%)



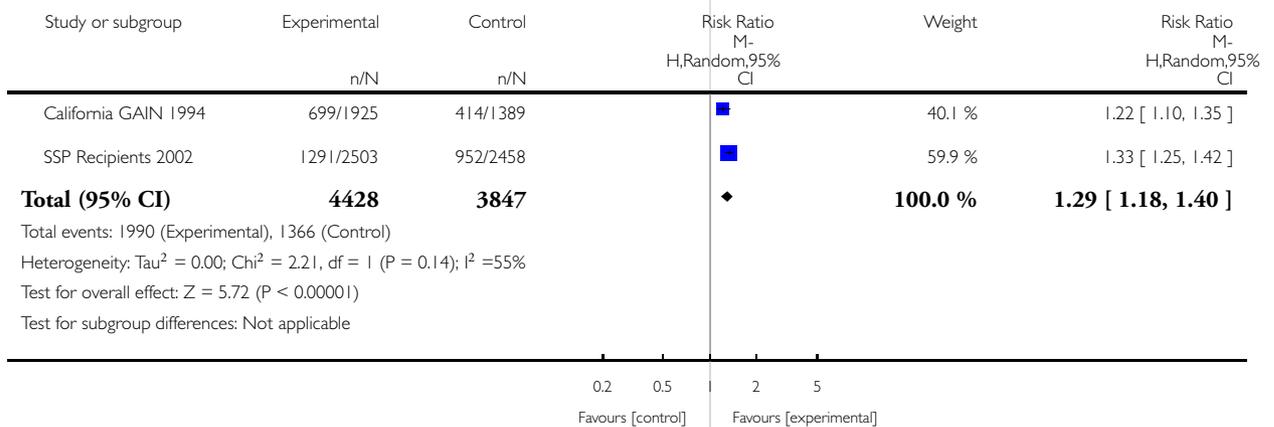
(1) MFIP and MFIP-IO long term and recent urban groups combined. Not reported for rural groups.

Analysis 14.3. Comparison 14 Time point 2 Employment status, Outcome 3 Ever employed full-time excluding MFIP (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 14 Time point 2 Employment status

Outcome: 3 Ever employed full-time excluding MFIP (%)

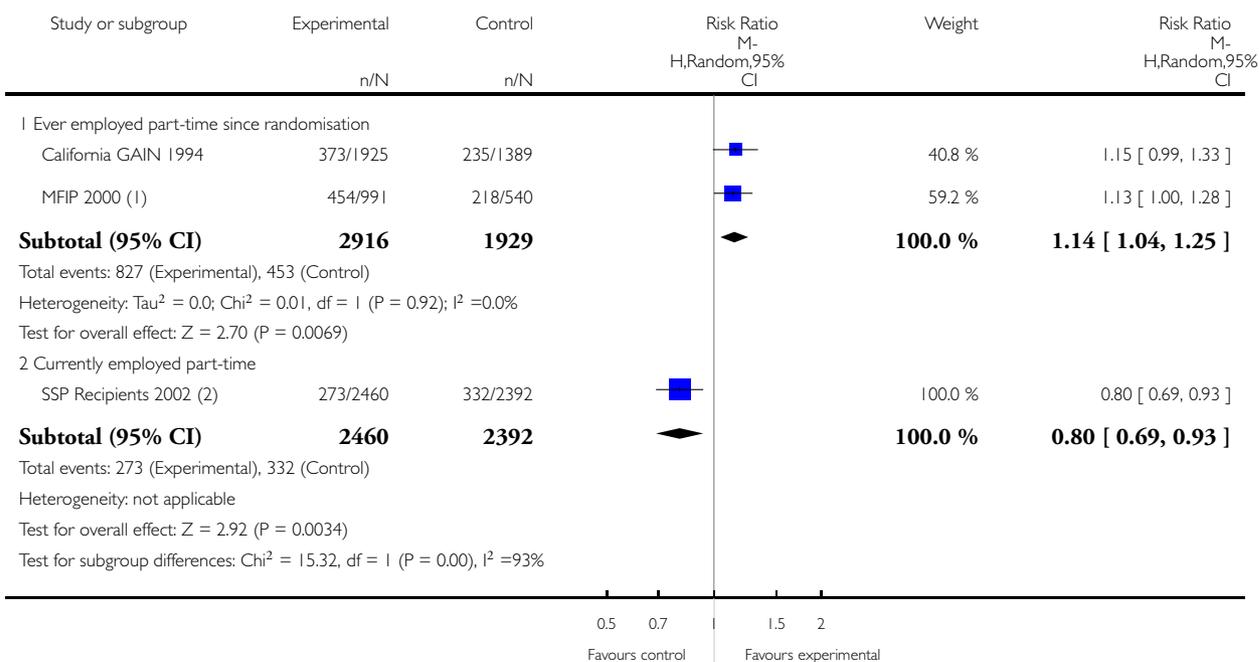


Analysis 14.4. Comparison 14 Time point 2 Employment status, Outcome 4 Employed part-time (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 14 Time point 2 Employment status

Outcome: 4 Employed part-time (%)



(1) MFIP and MFIP-IO long term and recent urban groups combined. Not reported for rural groups.

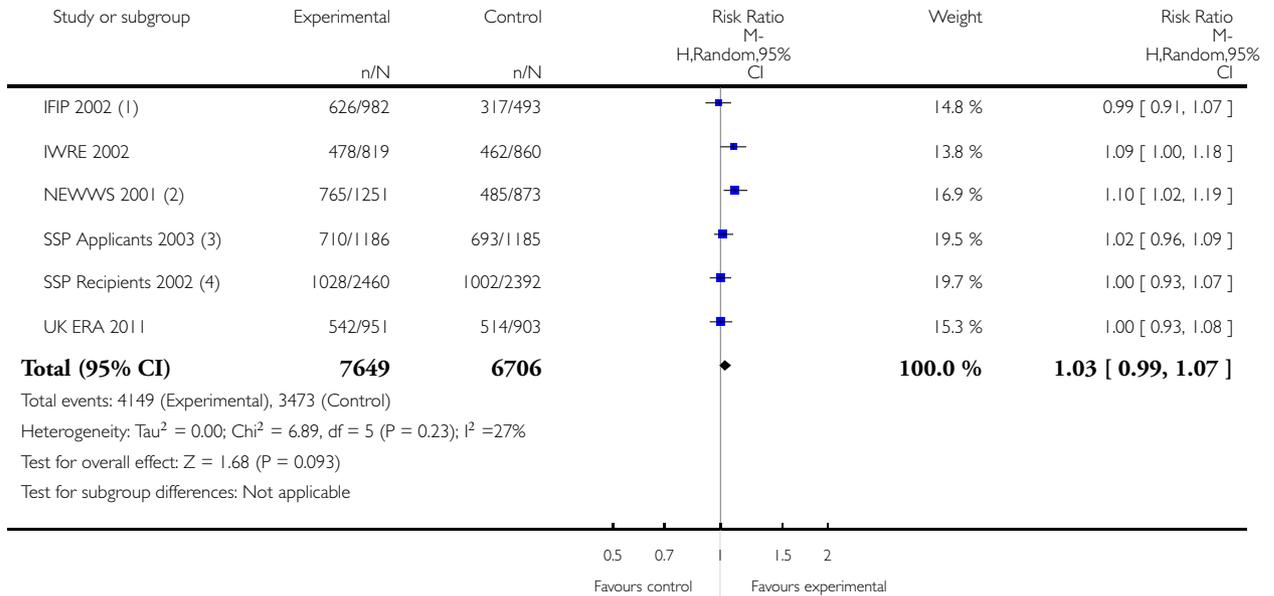
(2) Calculated from categorical data for hours worked per week (hours per week < or = 30).

Analysis 15.1. Comparison 15 Time point 3 Employment status, Outcome 1 Currently employed (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 15 Time point 3 Employment status

Outcome: 1 Currently employed (%)



(1) Applicants and recipients groups combined..

(2) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

(3) All hours per week categories summed.

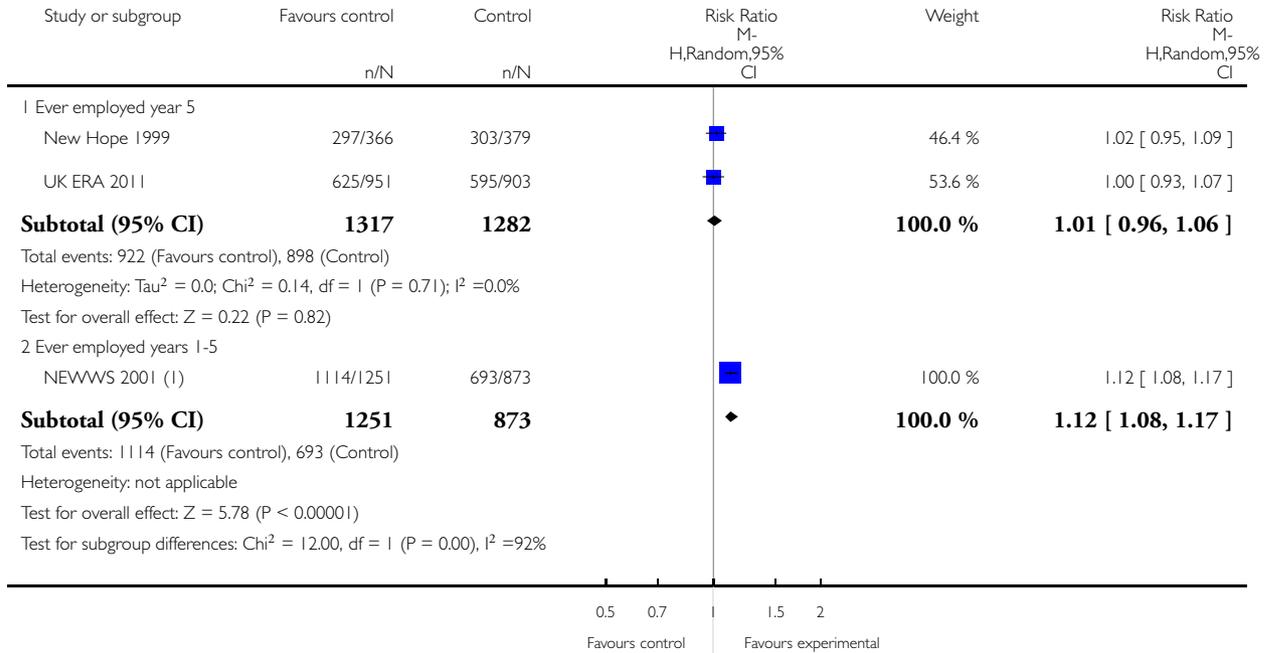
(4) Monthly employment rate Yr 5, quarter 2.

Analysis 15.2. Comparison 15 Time point 3 Employment status, Outcome 2 Ever employed (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 15 Time point 3 Employment status

Outcome: 2 Ever employed (%)



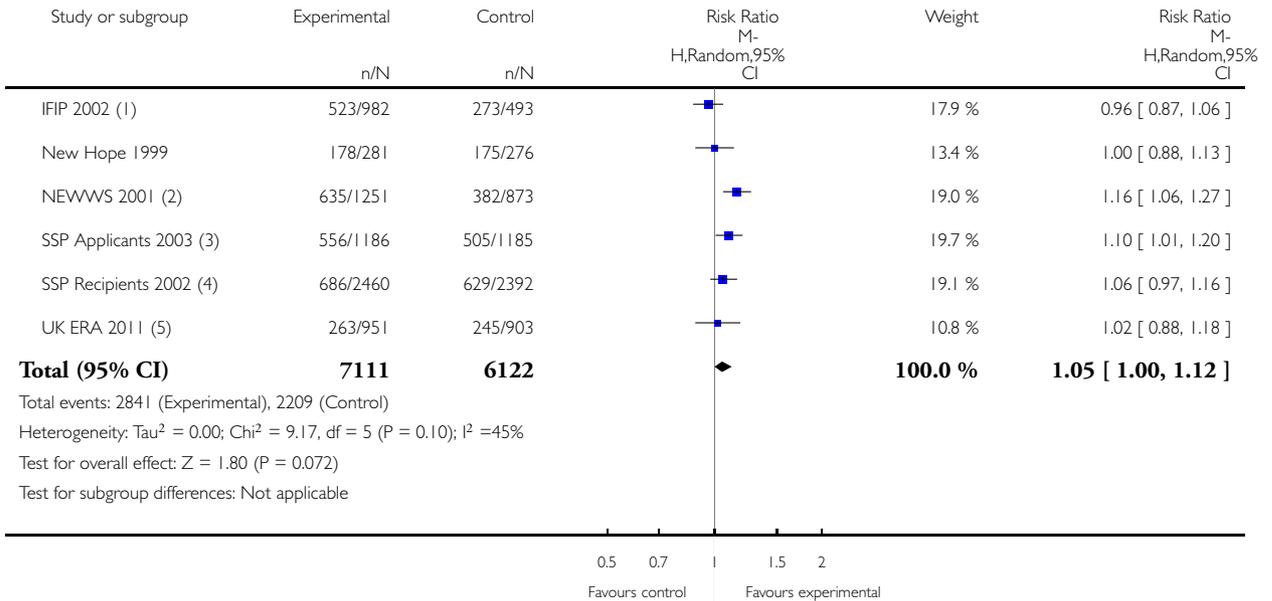
(1) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 15.3. Comparison 15 Time point 3 Employment status, Outcome 3 Currently employed full-time (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 15 Time point 3 Employment status

Outcome: 3 Currently employed full-time (%)



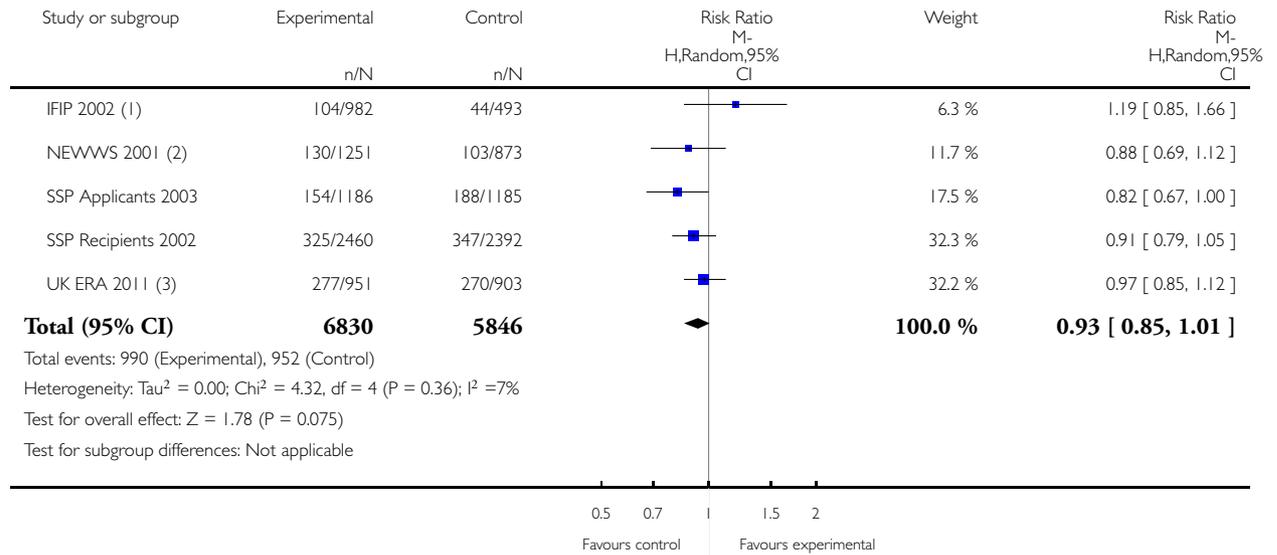
- (1) Applicants and recipients groups combined.
- (2) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.
- (3) Hours worked per week 30 - over 40; categorical variables summed.
- (4) Hours worked per week 30 - over 40; categorical variables summed.
- (5) Hours worked per week > 30.

Analysis 15.4. Comparison 15 Time point 3 Employment status, Outcome 4 Currently employed part-time (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 15 Time point 3 Employment status

Outcome: 4 Currently employed part-time (%)



(1) Applicants and recipients groups combined.

(2) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

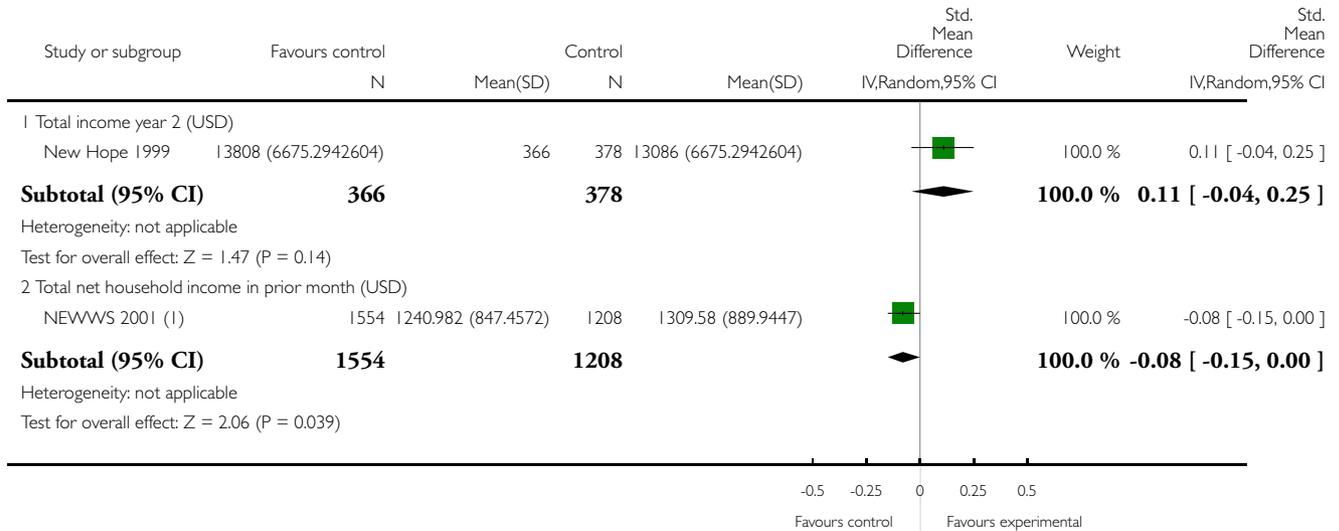
(3) Hours per week 1-15 and 16-29 summed.

Analysis 16.1. Comparison 16 Time point 1 Income, Outcome 1 Total income.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 16 Time point 1 Income

Outcome: 1 Total income



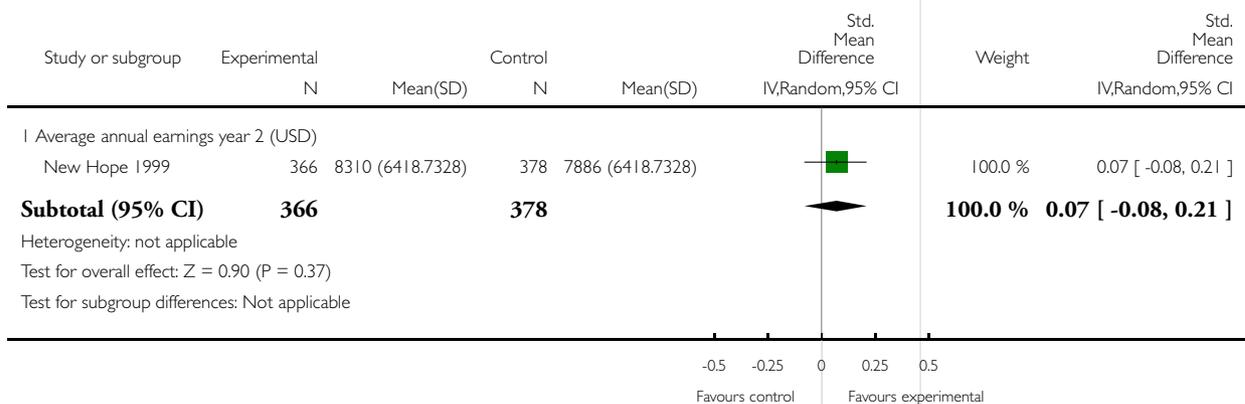
(1) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 16.2. Comparison 16 Time point 1 Income, Outcome 2 Earnings.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 16 Time point 1 Income

Outcome: 2 Earnings



Analysis 16.3. Comparison 16 Time point 1 Income, Outcome 3 NEWWS T1 Average earnings previous month (USD).

NEWWS T1 Average earnings previous month (USD)

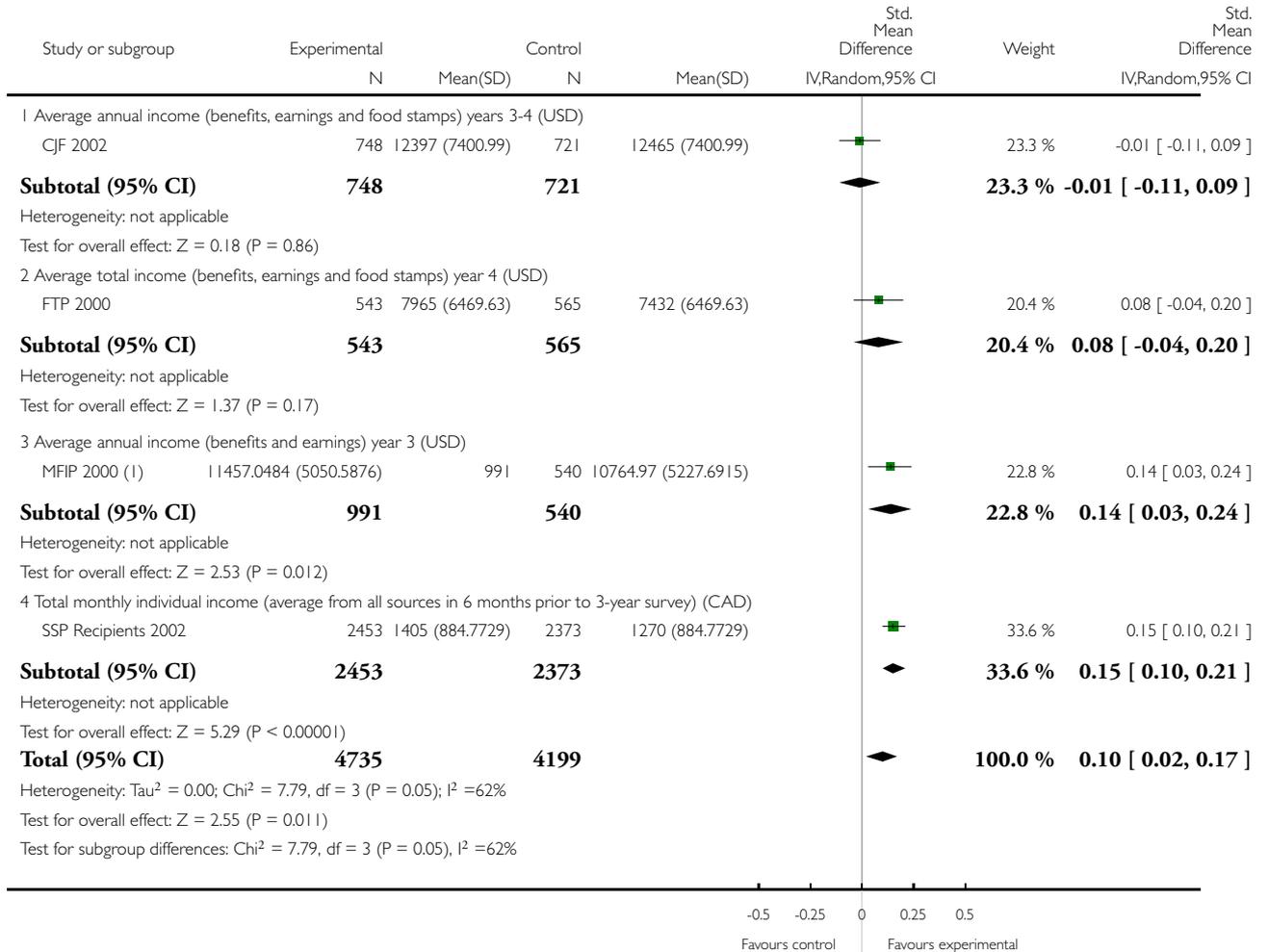
Study	Intervention group	I nt n	C ont n	Sig		
NEWWS 2001	Atlanta Human Capital Development	343	520	289	506	.0.1
NEWWS 2001	Atlanta Labour Force Attachment	326	396	293	506	NS
NEWWS 2001	Grand Rapids Human Capital Development	336	205	341	216	NS
NEWWS 2001	Grand Rapids Labour Force Attachment	392	225	345	216	NS
NEWWS 2001	Riverside Labour Force Attachment	337	208	197	486	0.001

Analysis 17.1. Comparison 17 Time point 2 Income, Outcome 1 Total income.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 17 Time point 2 Income

Outcome: 1 Total income



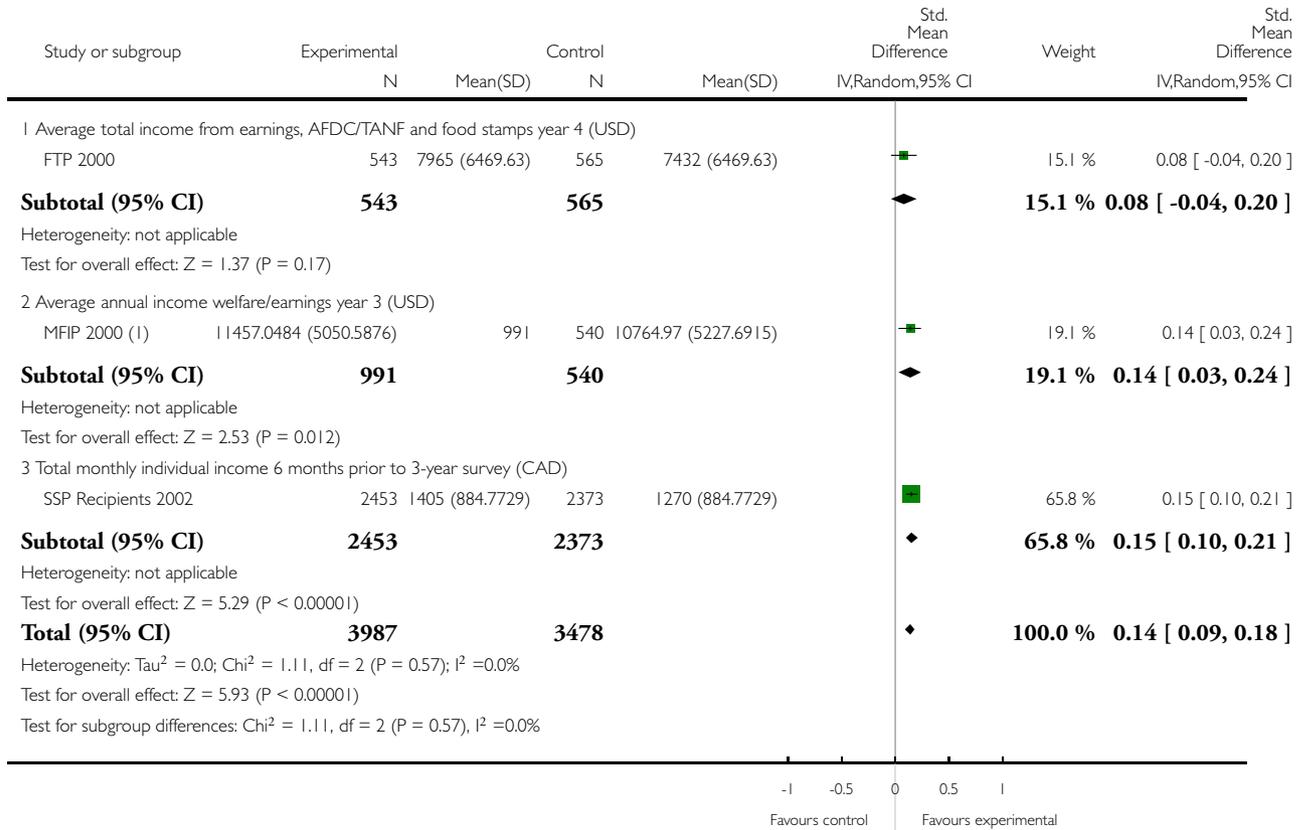
(1) Long term and recent urban applicants from MFIP groups combined. Rural respondents excluded from analysis due to missing measures of variance.

Analysis 17.2. Comparison 17 Time point 2 Income, Outcome 2 Total income excluding CJF.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 17 Time point 2 Income

Outcome: 2 Total income excluding CJF



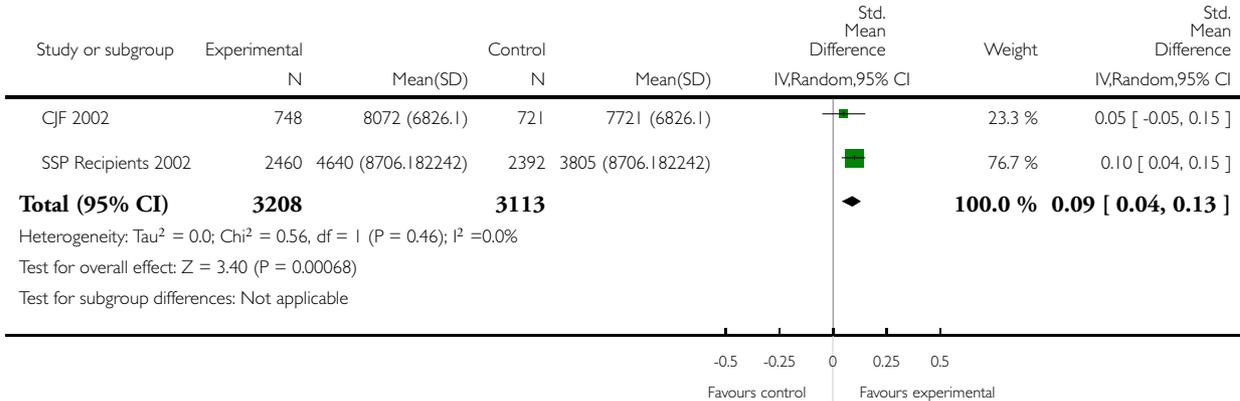
(1) Long term and recent urban applicants from MFIP groups combined. Rural respondents excluded from analysis due to missing measures of variance.

Analysis 17.3. Comparison 17 Time point 2 Income, Outcome 3 Average earnings in year of survey (USD).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 17 Time point 2 Income

Outcome: 3 Average earnings in year of survey (USD)



Analysis 17.4. Comparison 17 Time point 2 Income, Outcome 4 MFIP Average annual earnings years 1-3 (USD).

MFIP Average annual earnings years 1-3 (USD)

Study	Group	MFIP	MFIP-IO	Control	MFIP n	MFIP-IO n	Cont n	Sig
MFIP 2000	Long-term urban recipients	4657	3,967	3906	306	292	281	NS
MFIP 2000	Recent urban recipients	6817	6,270	7438	258	135	259	NS
MFIP 2000	Long-term rural recipients	4061	NA	4139	92	NA	105	NS
MFIP 2000	Recent rural recipients	6530	NA	5854	97	NA	75	NS

Analysis 17.5. Comparison 17 Time point 2 Income, Outcome 5 GAIN Average weekly earnings since randomisation (USD).

GAIN Average weekly earnings since randomisation (USD)

Study	Intervention	Int n	Control	Cont n	Sample	Sig
California GAIN 1994	204	1076	190	648	Employed respondents only	No test conducted

Analysis 17.6. Comparison 17 Time point 2 Income, Outcome 6 FTP Average earnings in year of study (USD).

FTP Average earnings in year of study (USD)

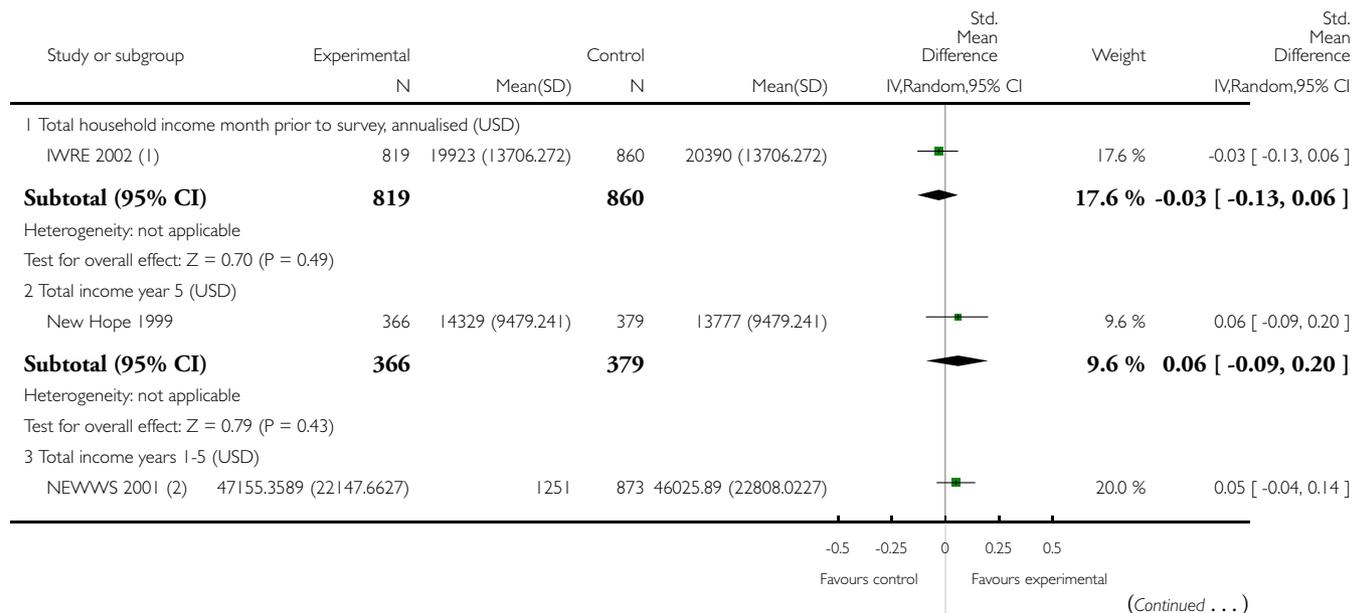
Study	Intervention mean	Intervention n	Control mean	Control n
FTP 2000	6177	543	5208	565

Analysis 18.1. Comparison 18 Time point 3 Income, Outcome 1 Total income.

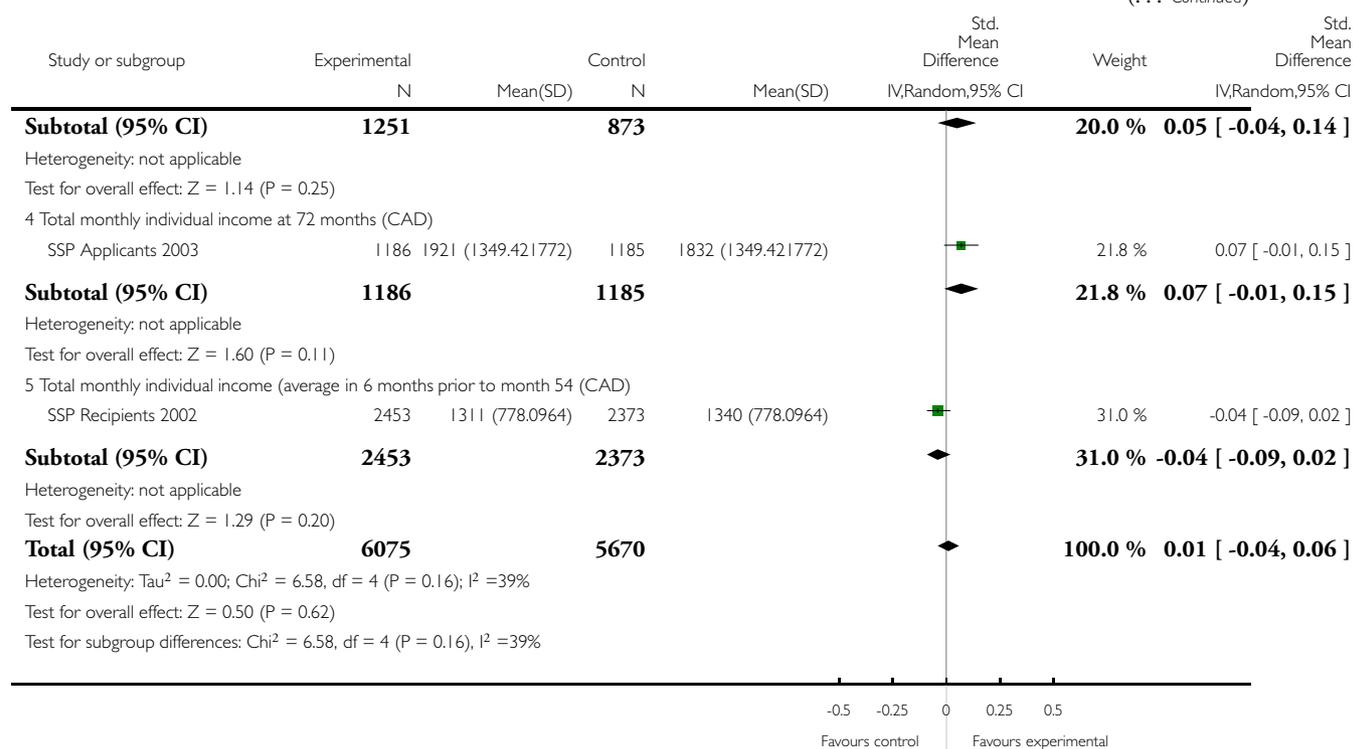
Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 18 Time point 3 Income

Outcome: 1 Total income



(... Continued)



(1) Measure of variation unobtainable from authors

(2) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 18.2. Comparison 18 Time point 3 Income, Outcome 2 IFIP household income month prior to survey (USD).

IFIP household income month prior to survey (USD)

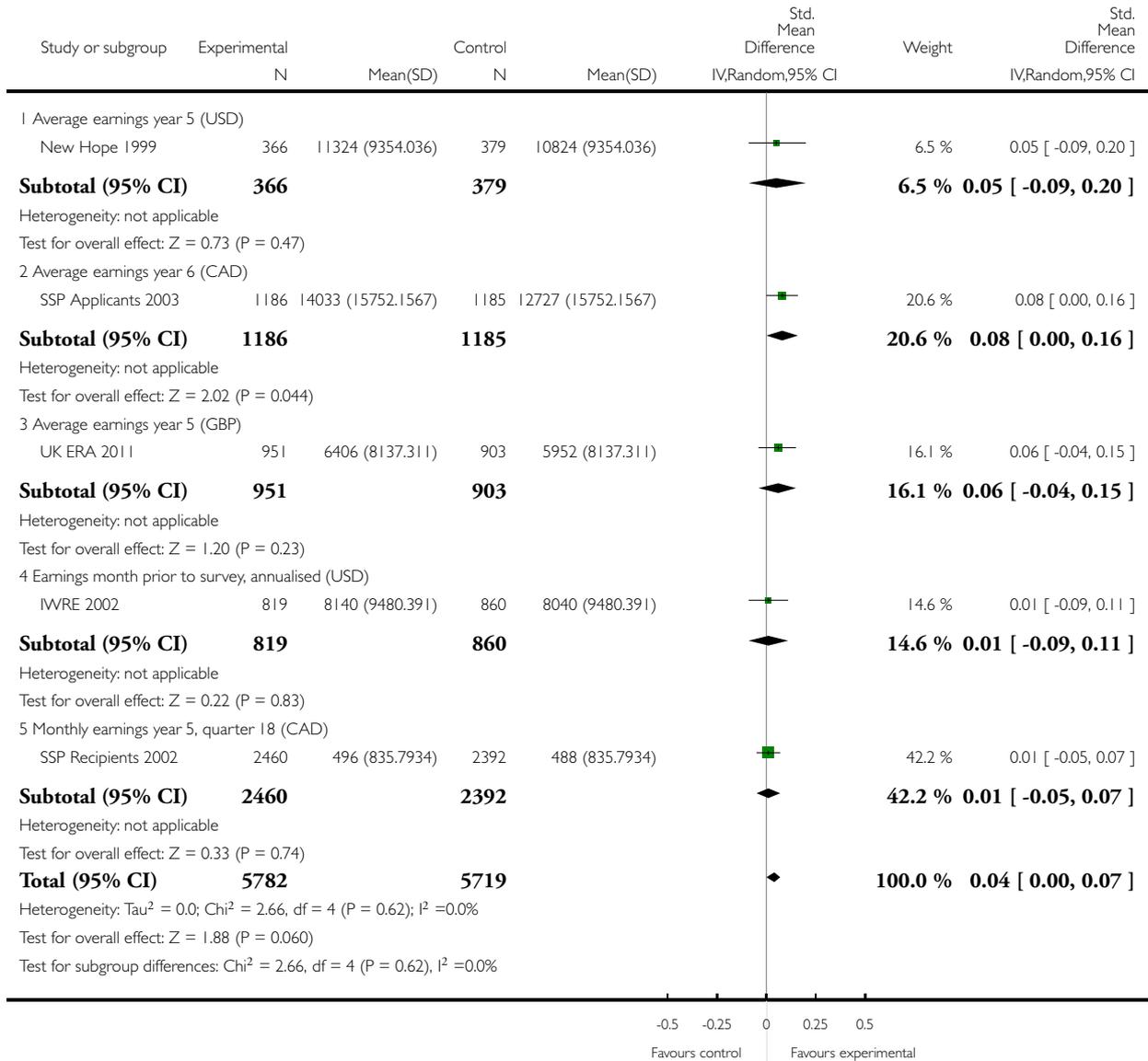
Study	Group	Intervention	Int n	Control	Cont n	Sig
IFIP 2002	Ongoing	1533	540	1451	273	NS
IFIP 2002	Applicant	1857	442	2110	220	0.05

Analysis 18.3. Comparison 18 Time point 3 Income, Outcome 3 Total earnings.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 18 Time point 3 Income

Outcome: 3 Total earnings



Analysis 18.4. Comparison 18 Time point 3 Income, Outcome 4 IFIP Average earnings month prior to survey (USD).

IFIP Average earnings month prior to survey (USD)

Study	Group	Intervention	Int n	Control	Cont n	Sig
IFIP 2002	Ongoing	816	540	808	273	NS
IFIP 2002	Applicant	1053	442	1117	220	NS

Analysis 18.5. Comparison 18 Time point 3 Income, Outcome 5 NEWWS T3 Average earnings years 1-5 (USD).

NEWWS T3 Average earnings years 1-5 (USD)

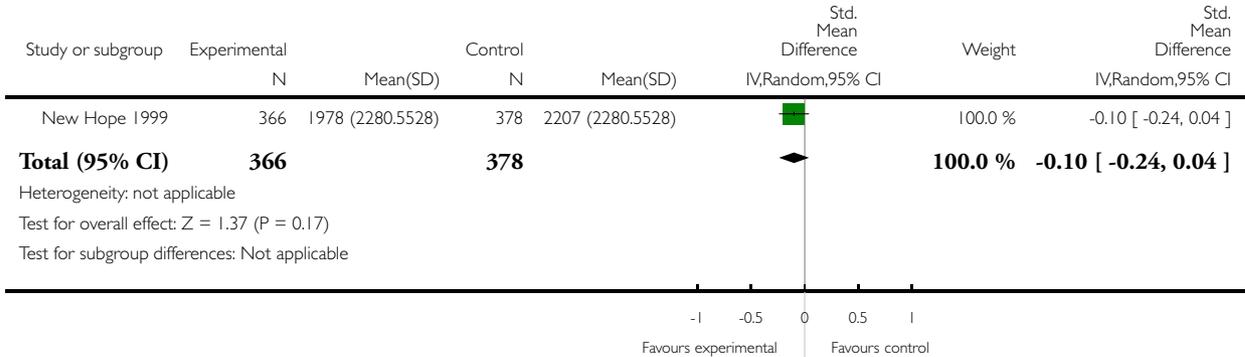
Study	Group	int	N	cont	N	Sig
NEWWS 2001	Atlanta Human Capital Development	22,961	367	20,516	311	NS
NEWWS 2001	Atlanta Labour Force Attachment	23,063	289	20,516	311	NS
NEWWS 2001	Grand Rapids Human Capital Development	23,975	196	23,340	214	NS
NEWWS 2001	Grand Rapids Labour Force Attachment	26,625	214	23,340	214	NS
NEWWS 2001	Riverside Labour Force Attachment	17,342	185	10,805	348	0.01

Analysis 19.1. Comparison 19 Time point 1 Welfare receipt, Outcome 1 Total AFDC received year 2 (USD).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 19 Time point 1 Welfare receipt

Outcome: 1 Total AFDC received year 2 (USD)

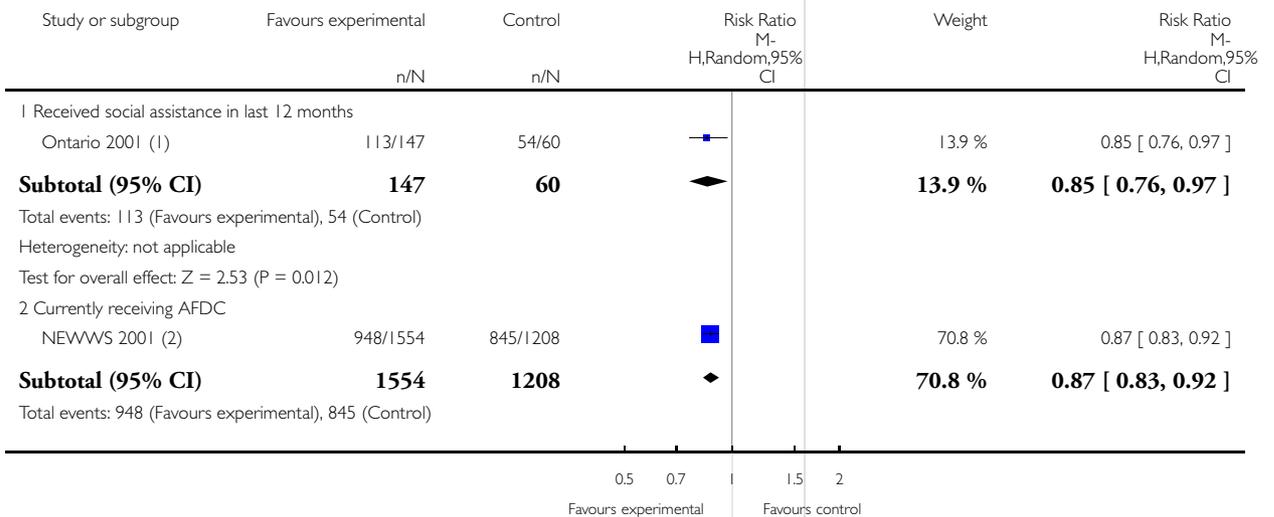


Analysis 19.2. Comparison 19 Time point 1 Welfare receipt, Outcome 2 Proportion of sample receiving welfare (%).

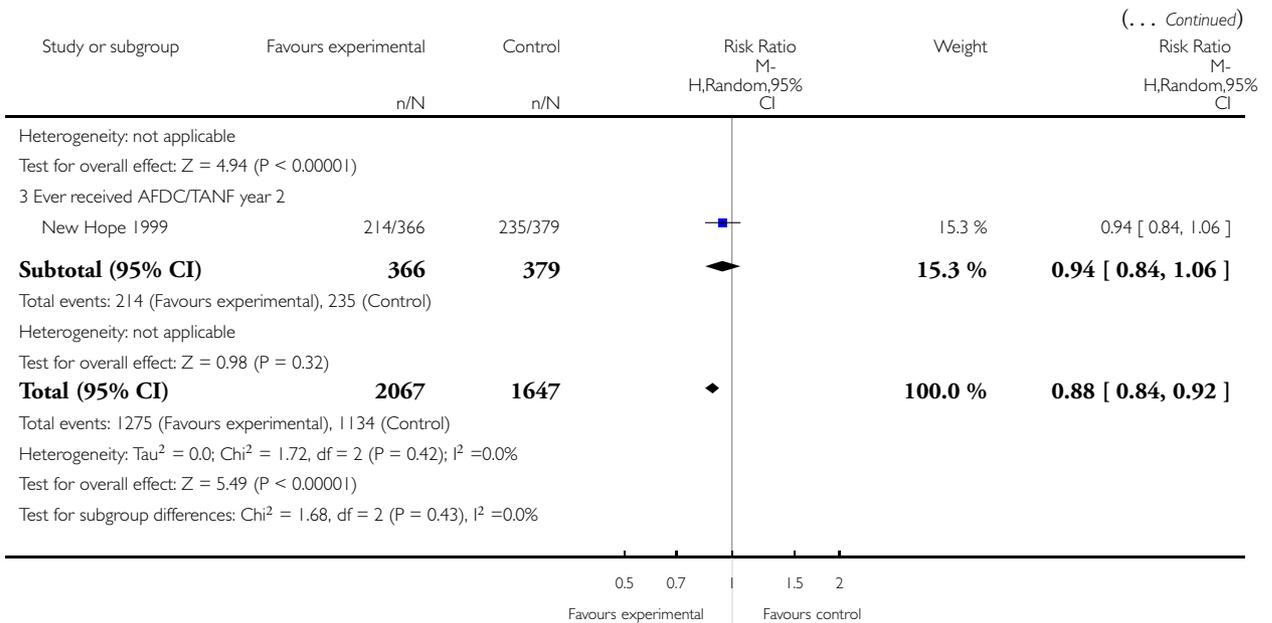
Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 19 Time point 1 Welfare receipt

Outcome: 2 Proportion of sample receiving welfare (%)



(Continued ...)



(1) 2 intervention groups in Ontario combined.

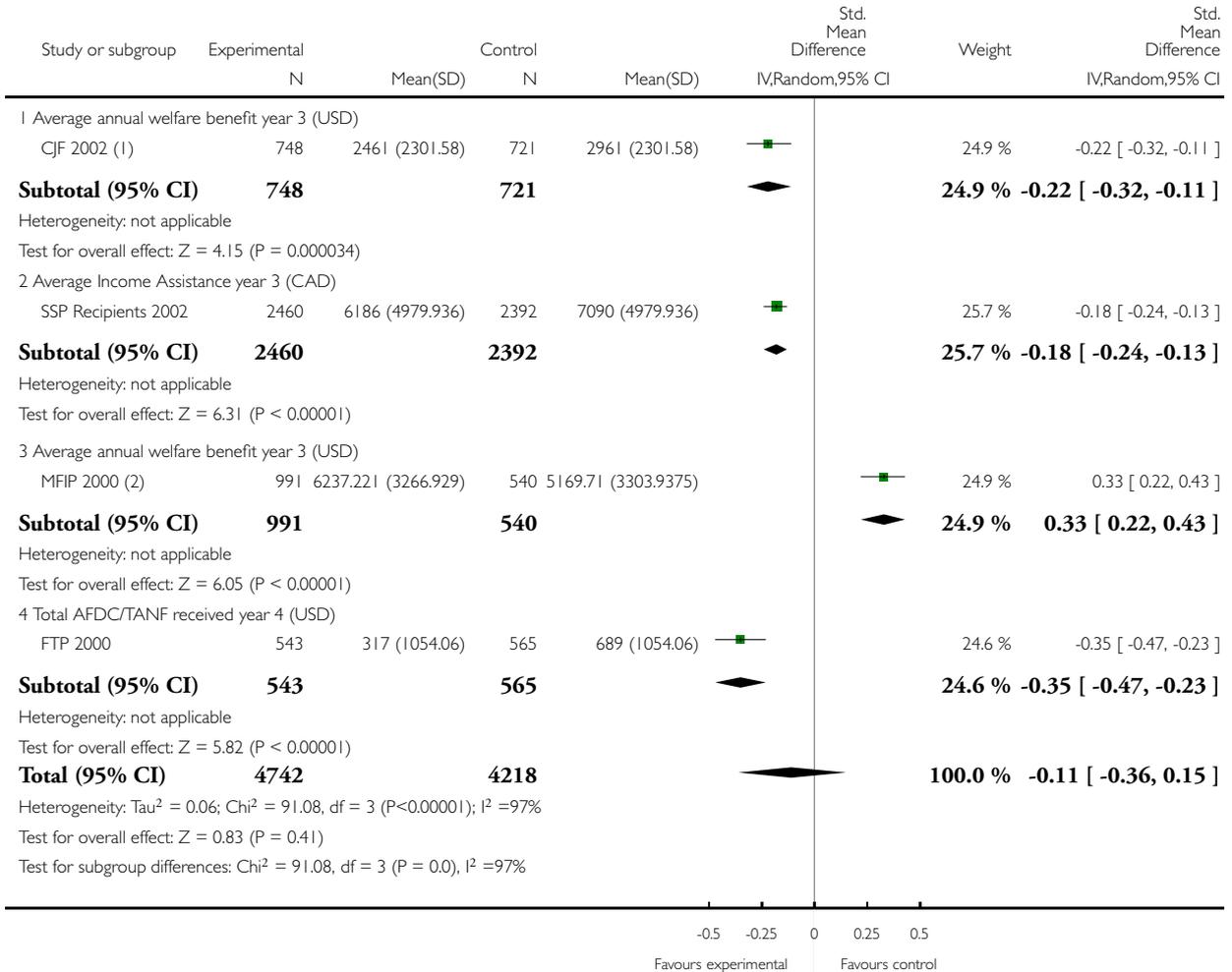
(2) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 20.1. Comparison 20 Time point 2 Welfare receipt, Outcome 1 Average annual welfare benefit.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 20 Time point 2 Welfare receipt

Outcome: 1 Average annual welfare benefit



(1) Data from CJF 2002 published in Gennetian and Morris 2003. It is unclear whether 'welfare benefit' includes Food Stamps.

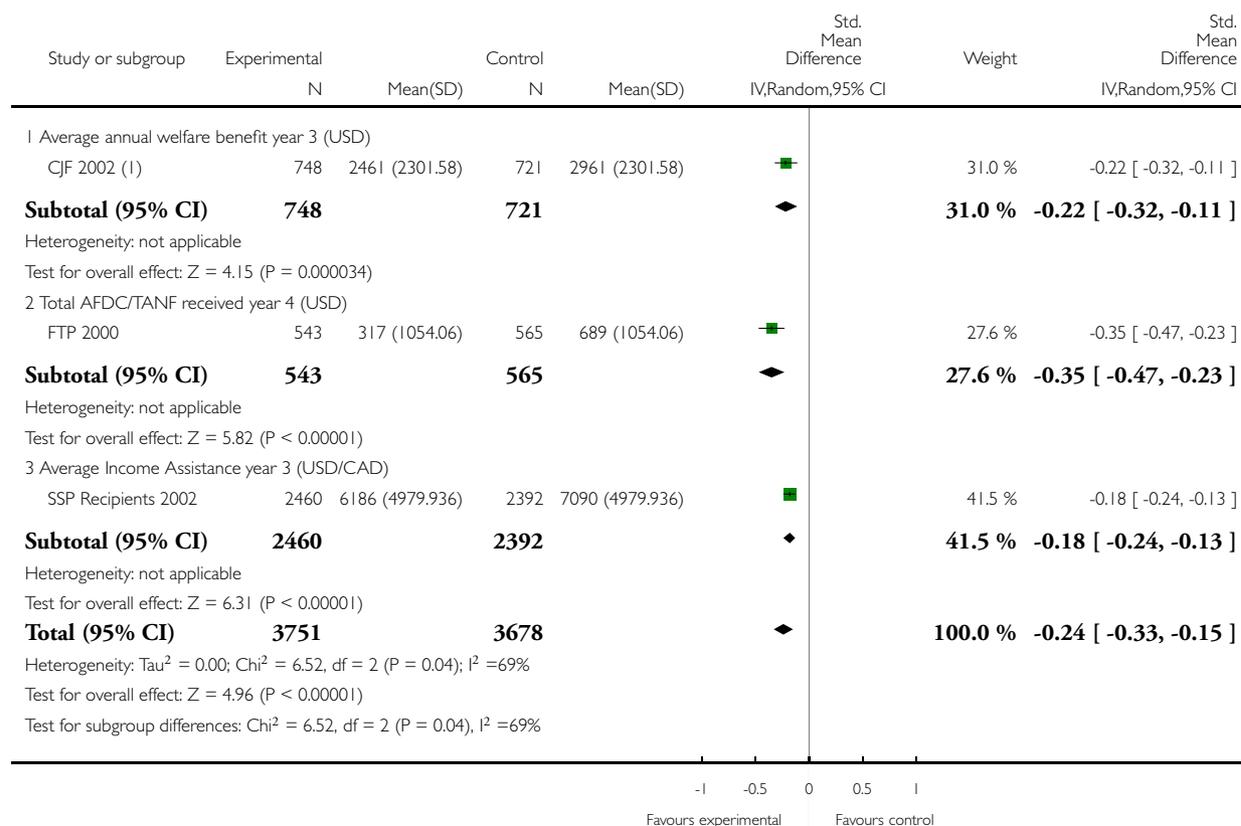
(2) Long term and recent urban MFIP and MFIP IO groups combined. Rural group excluded from analysis due to missing measures of variance.

Analysis 20.2. Comparison 20 Time point 2 Welfare receipt, Outcome 2 Average annual welfare benefit excluding MFIP.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 20 Time point 2 Welfare receipt

Outcome: 2 Average annual welfare benefit excluding MFIP



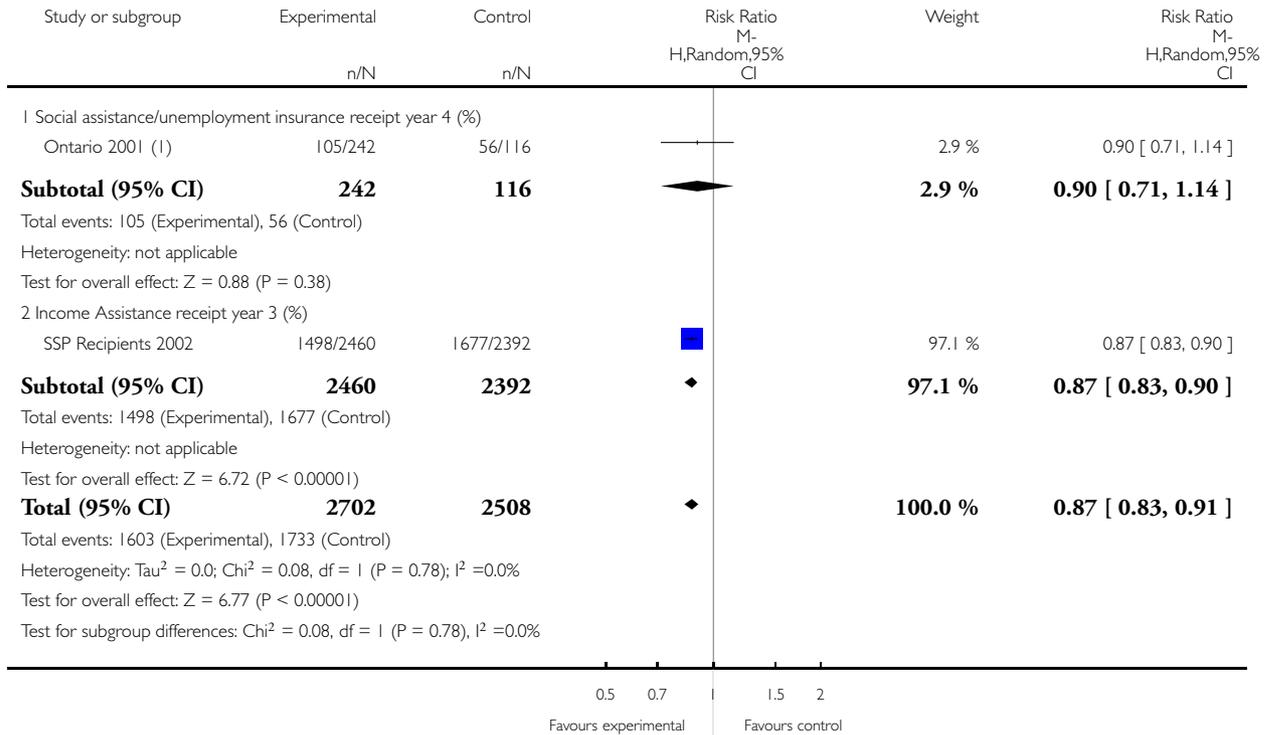
(1) Data from CJF 2002 published in Gennettian and Morris 2003. It is unclear whether 'welfare benefit' includes Food Stamps.

Analysis 20.3. Comparison 20 Time point 2 Welfare receipt, Outcome 3 Proportion of sample receiving welfare.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 20 Time point 2 Welfare receipt

Outcome: 3 Proportion of sample receiving welfare



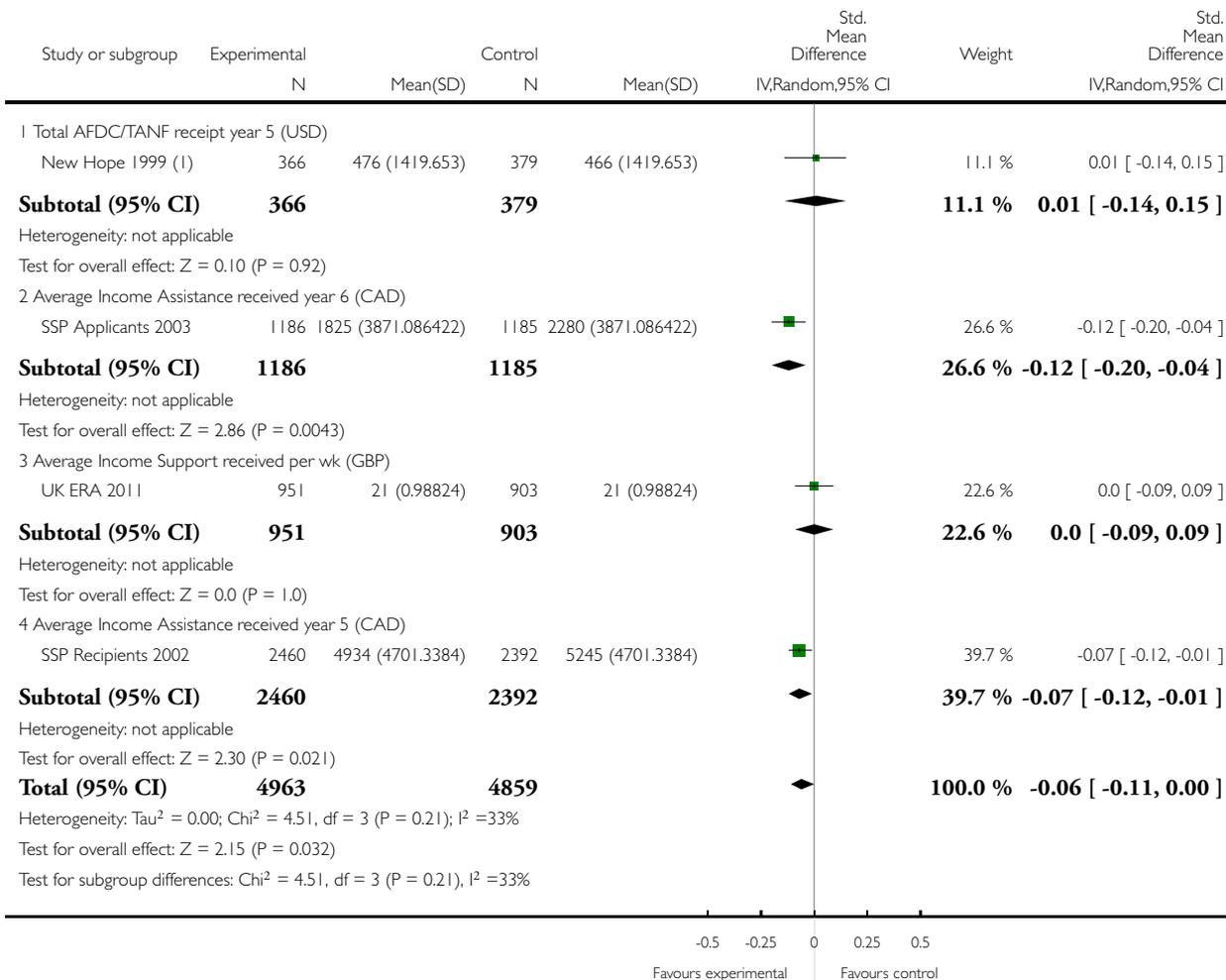
(1) 2 intervention groups in Ontario combined.

Analysis 21.1. Comparison 21 Time point 3 Welfare receipt, Outcome 1 Total welfare benefit received.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 21 Time point 3 Welfare receipt

Outcome: 1 Total welfare benefit received



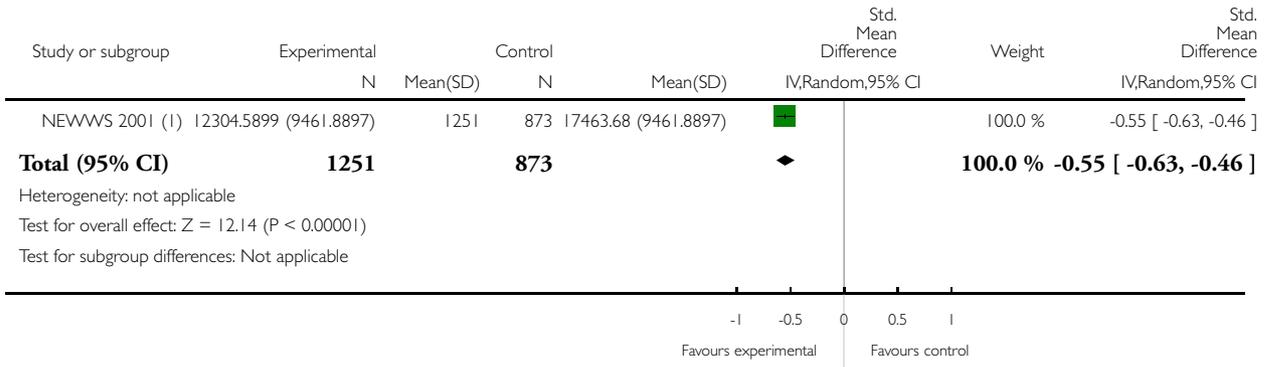
(1) For all outcomes, the closest equivalent benefits have been included in the analysis.

Analysis 21.2. Comparison 21 Time point 3 Welfare receipt, Outcome 2 Total welfare payments years 1-5 (USD).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 21 Time point 3 Welfare receipt

Outcome: 2 Total welfare payments years 1-5 (USD)



(1) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 21.3. Comparison 21 Time point 3 Welfare receipt, Outcome 3 IWRE TANF receipt month before survey, annualised year 5 (USD).

IWRE TANF receipt month before survey, annualised year 5 (USD)

Study	Intervention	Int n	Control	Cont n	Total n	Sig.
IWRE 2002	685	819	1082	860	1679	< 0.01

Analysis 21.4. Comparison 21 Time point 3 Welfare receipt, Outcome 4 IFIP Average welfare received month prior to survey (USD).

IFIP Average welfare received month prior to survey (USD)

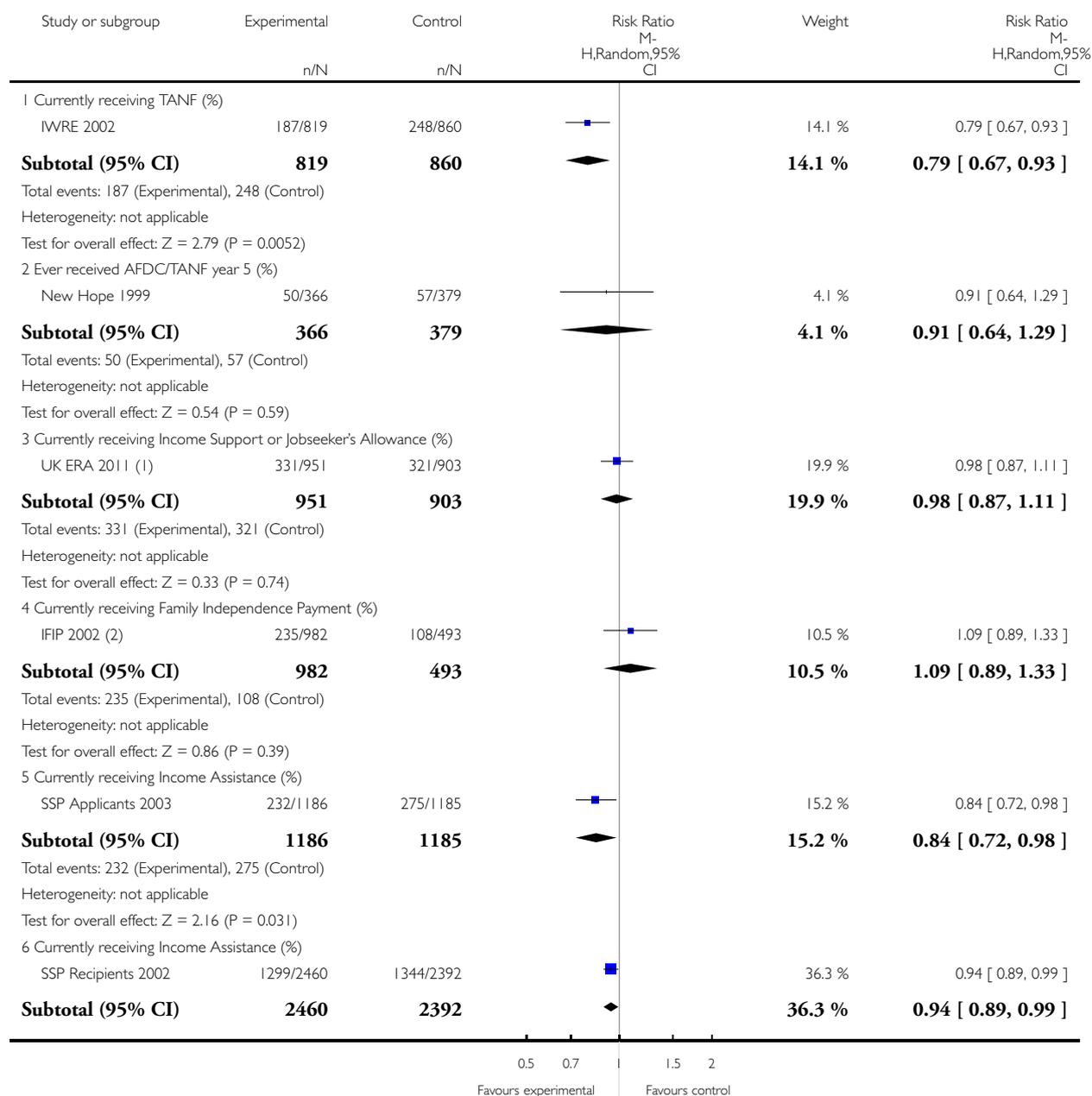
Study	Group	Intervention	Int n	Control	Cont n	Sig.
IFIP 2002	Ongoing	111	540	103	273	NS
IFIP 2002	Applicant	56	442	34	220	< 0.05

Analysis 21.5. Comparison 21 Time point 3 Welfare receipt, Outcome 5 Proportion of sample receiving welfare.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

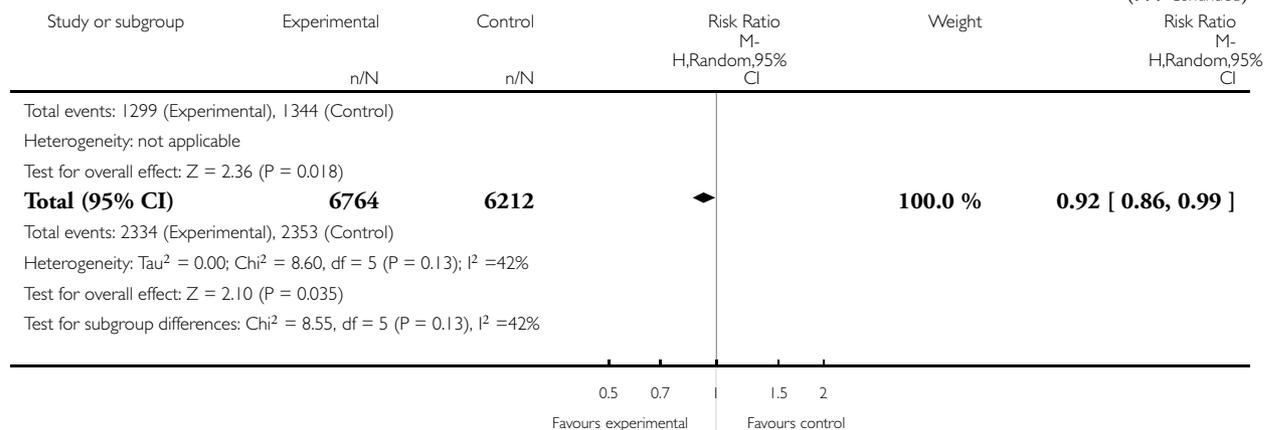
Comparison: 21 Time point 3 Welfare receipt

Outcome: 5 Proportion of sample receiving welfare



(Continued . . .)

(... Continued)



(1) Proportion receiving IS and JSA reported separately in study and summed by review authors.

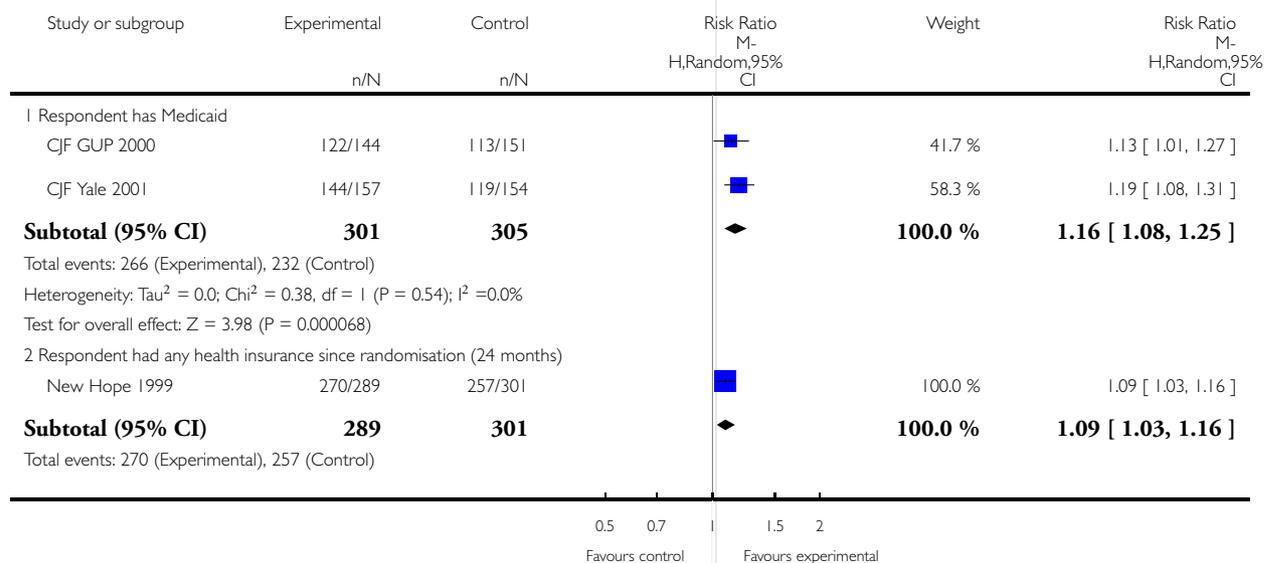
(2) Applicants and recipients groups combined.

Analysis 22.1. Comparison 22 Time point 1 Health insurance, Outcome 1 Respondent has health insurance (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

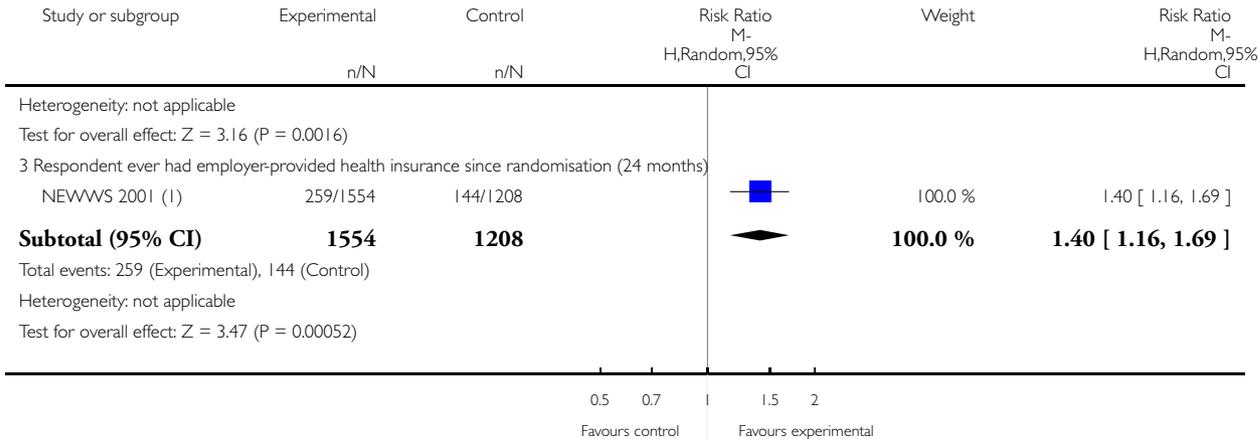
Comparison: 22 Time point 1 Health insurance

Outcome: 1 Respondent has health insurance (%)



(Continued ...)

(... Continued)



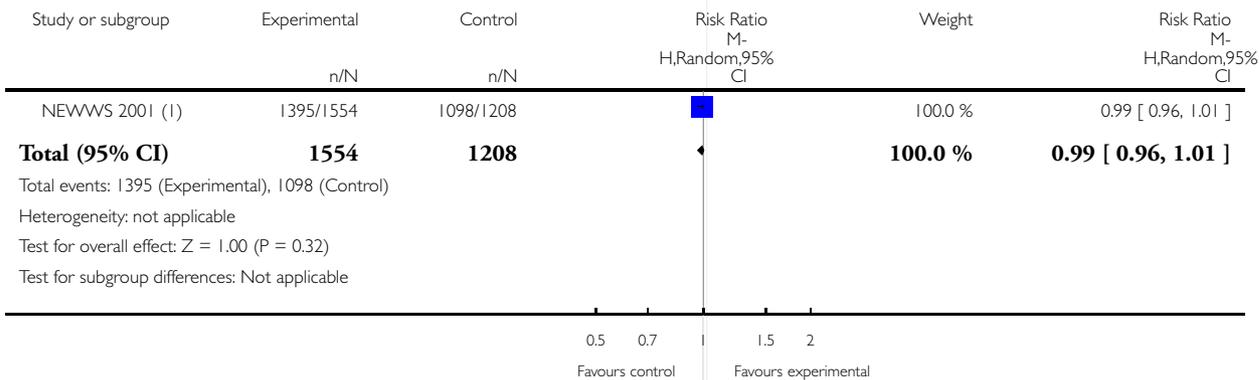
(1) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 22.2. Comparison 22 Time point 1 Health insurance, Outcome 2 Child health insurance (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 22 Time point 1 Health insurance

Outcome: 2 Child health insurance (%)



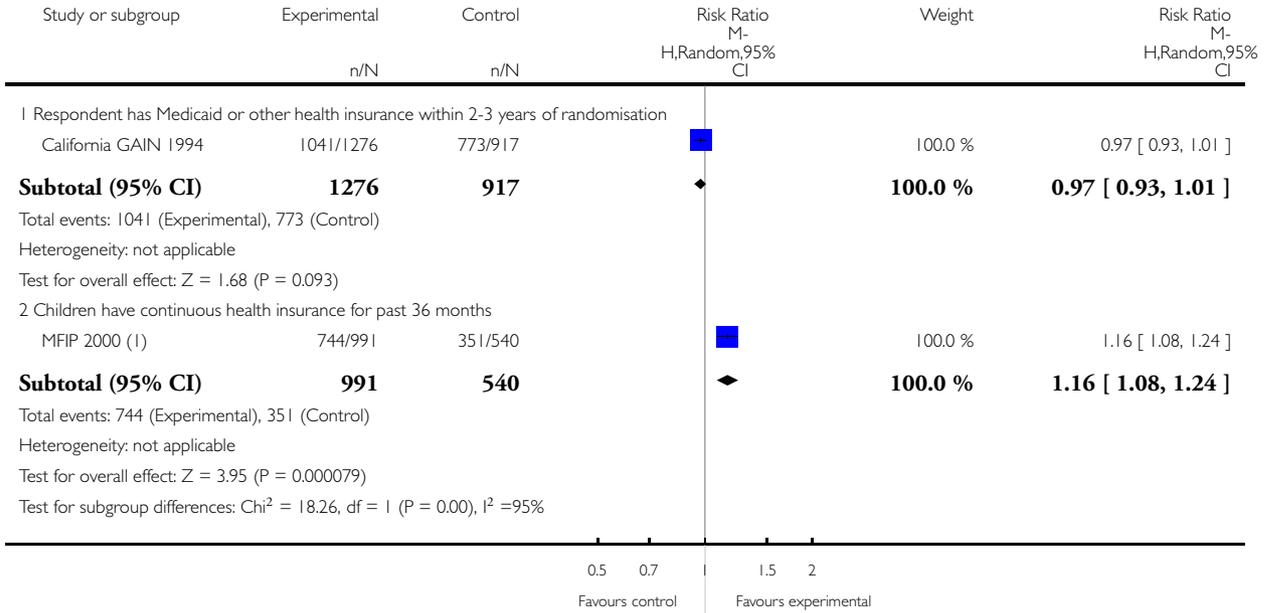
(1) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 23.1. Comparison 23 Time point 2 Health insurance, Outcome 1 Health insurance (%).

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 23 Time point 2 Health insurance

Outcome: 1 Health insurance (%)



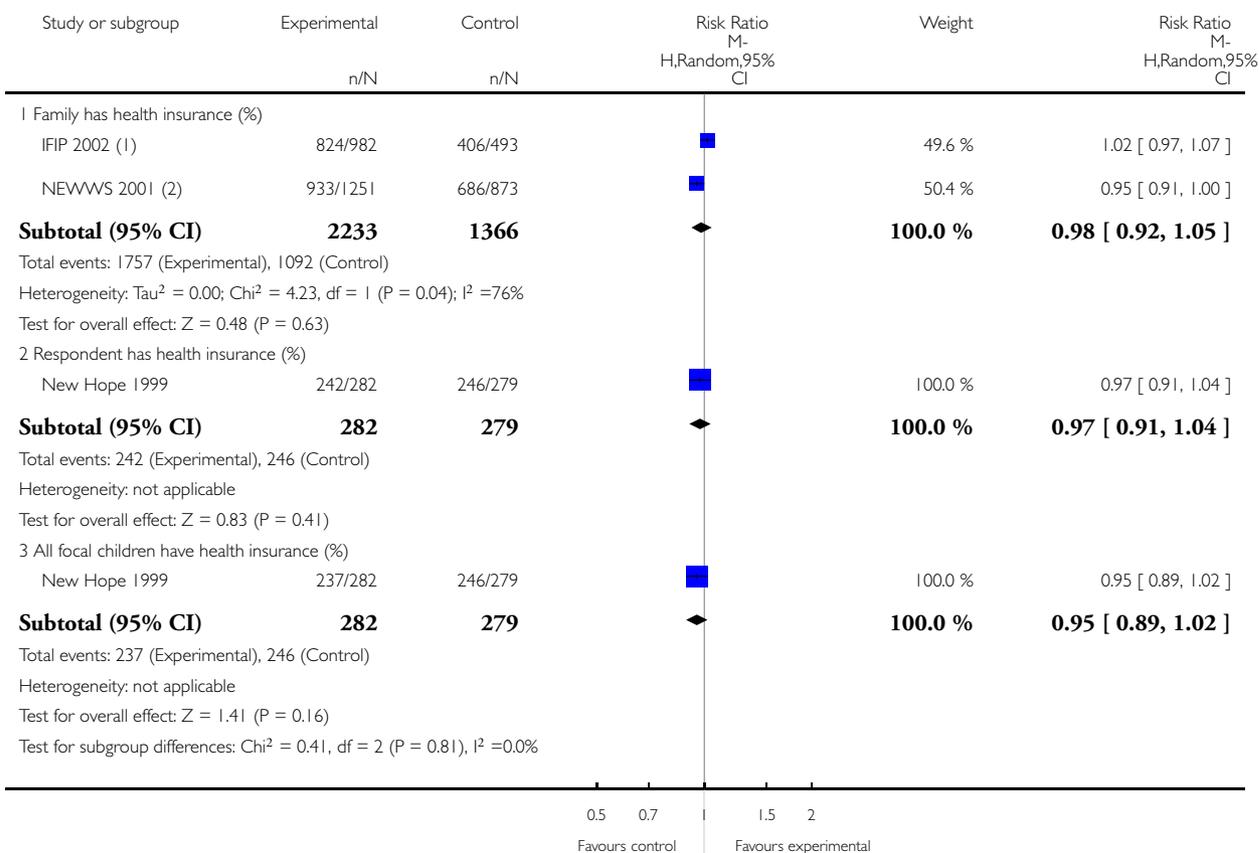
(1) MFIP and MFIP-IO long term and recent urban groups combined. Not reported for rural groups.

Analysis 24.1. Comparison 24 Time point 3 Health insurance, Outcome 1 Health insurance.

Review: Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children

Comparison: 24 Time point 3 Health insurance

Outcome: 1 Health insurance



(1) Applicants and recipients groups combined.

(2) Impacts for all NEWWS intervention and site subgroups excluding Riverside are combined.

Analysis 25.1. Comparison 25 New Hope 96 months, Outcome 1 Maternal and child health outcomes.

Maternal and child health outcomes

Study	Outcome	Group	Interven- tion	Int n	Control	Cont n	Total n	P value	Effect size
New Hope 1999	Phys- ical health (mean score) (1- 5)	Parents	3.2	NR	3.22	NR	595	0.82	-0.02

Maternal and child health outcomes (Continued)

New Hope 1999	CES-D mean score (0-60)	Parents	17.36	NR	17.33	NR	595	0.98	0.00
New Hope 1999	Problem Behavior Scale Externalising subscore	Boys	2.34	NR	2.45	NR	570	0.107	-0.15
New Hope 1999	Problem Behavior Scale Externalising subscore	Girls	2.34	NR	2.3	NR	531	0.615	0.05
New Hope 1999	Problem Behavior Scale Internalising subscore	Boys	2.29	NR	2.39	NR	570	0.148	-0.15
New Hope 1999	Problem Behavior Scale Internalising subscore	Girls	2.32	NR	2.35	NR	531	0.664	-0.04

ADDITIONAL TABLES

Table 1. Primary outcome measures

Primary outcomes	Reported measures
Parental mental health	Center for Epidemiologic Studies Depression Scale (CES-D), Composite International Diagnostic Interview (CIDI), University of Michigan Composite International Diagnostic Interview (UM-CIDI). Currently unhappy, sad or depressed 'very often' or 'fairly often'. Miserable or depressed 'often' or 'always'
Parental physical health	5-item self-report health measures; ≥ 1 physical health problem(s)
Child mental health	Behavior Problems Index (BPI), Problem Behavior Scale of the Social Skills Rating System (PBS), the Survey Diagnostic Instrument of the Ontario Child Health Survey (SDI), Child Behavior Checklist

Table 1. Primary outcome measures (Continued)

	(CBCL), Behavior Problems Scale
Child physical health	5-item measures of parent reported health, except for the Self-Sufficiency Project for Applicants (SSP Applicants 2003) and for Recipients (SSP Recipients 2002), which used a 4-item measure with answers given on a 5-point scale and averaged across the 5 items

Table 2. Data extracted in standardised data extraction form

Intervention	Bodies initiating and evaluating intervention
	Hypothesis for mechanisms linking intervention to health
	Location
	Dates
	Political and economic context
	Intervention (and co-intervention if applicable) approach (i.e. HCD/LFA, anti-poverty/caseload reduction)
	Intervention (and co-intervention if applicable) components
	Other implementation or contextual information
Population	Sample demographics (family composition, age, ethnicity)
	Socioeconomic factors (employment status)
	Sample size
Study information	Study duration
	Length of follow-up
	Attrition and non-response
	Final sample size
	Method of adjusting for confounders
	Statistical tests used
	Study limitations
Outcomes	Outcome measures used
	Data collection times

Table 2. Data extracted in standardised data extraction form (Continued)

Results	Impacts on outcomes at each follow-up (including all data on statistical tests)
	Impacts on relevant subgroups
Other information	Authors' orientation
	Authors' conclusions
	Policy and research recommendations
	Reviewers' comments

Table 3. Data collection time points

Time point	T1: 18-24 months		T2: 25-48 months		T3 49-72 months			Narrative synthesis	
	18 months	24 months	36 months	48 months	54 months	60 months	72 months	96 months	15-17 years
CJF 2002	-	-	X	-	-	-	-	-	X
CJF GUP 2000	X	-	X	-	-	-	-	-	-
CJF Yale 2001	X	-	-	-	-	-	-	-	-
FTP 2000	-	-	-	X	-	-	-	-	X
California GAIN 1994	-	-	X	-	-	-	-	-	-
IFIP 2002	-	-	-	-	-	X	-	-	-
IWRE 2002	-	-	-	-	-	X	-	-	-
MFIP 2000	-	-	X	-	-	-	-	-	-
New Hope 1999	-	X	-	-	-	X	-	X	-
NEWWS 2001	-	X	-	-	-	X	-	-	-

Table 3. Data collection time points (Continued)

Ontario 2001	-	X	-	X	-	-	-	-	-
SSP Applicants 2003	-	-	-	-	-	-	X	-	-
SSP Recipients 2002	-	-	X	-	X	-	-	-	-
UK ERA 2011	-	-	-	-	-	X	-	-	-
Studies (k)	k = 5		k = 6		k = 7			k = 1	k = 2

Table 4. Reported subgroups

Study	Type of subgroup	Subgroup
IFIP 2002	Welfare receipt status	Ongoing/applicant
MFIP 2000	Location	Urban/rural
MFIP 2000	Welfare receipt status	Long-term/recent
MFIP 2000	Intervention	Full intervention/incentives only
NEWSWS 2001	Intervention	LFA/HCD
NEWSWS 2001	Location	Grand Rapids, Riverside, Atlanta
New Hope 1999	Child age	T1 3-5 years, 6-8 years, 9-12 years
Ontario 2001	Intervention	Full intervention/employment training only
SSP Applicants 2003	Child age	6-8 years, 9-14 years
SSP Recipients 2002	Child age	T2: 3-5 years, 6-11 years, 12-18 years; T3: 5.5-7.5 years, 7.5-9.5 years

Table 5. Definitions of effect magnitude

Cohen's standards	SMD	Odds ratio	Modified approach	SMD	RR
Trivial	< 0.20	< 1.50	Very small	< 0.10	1.01-1.19
Small	0.20-0.49	1.50-2.49	Small	0.10-0.20	1.20-1.50
Medium	0.50-0.79	2.50-4.29	Modest	> 0.20	> 1.50

APPENDICES

Appendix I. Glossary

AFDC	Aid to Families with Dependent Children (1996 changed to TANF)
AP	Anti-Poverty
California GAIN	California Greater Avenues for Independence
CJF	Connecticut Jobs First
CR	Caseload Reduction
CWIE	Child Waiver Impact Experiments
EITC	Earned Income Tax Credit
FTP	The Family Transition Program
HCD	Human Capital Development
IFIP	Iowa Family Investment Programme
IWRE	The Indiana Welfare Reform Evaluation
JOBS	Job Opportunities and Basic Skills
LFA	Labour Force Attachment
MDRC	Manpower Demonstration Research Corporation (now MDRC)

(Continued)

MFIP	Minnesota Family Investment Program
MFIP-IO	Minnesota Family Investment Program (Incentives Only)
New Hope	New Hope for families and children
NEWWS	National Evaluation of Welfare-to-Work Strategies
PRWORA	Personal Responsibility and Work Opportunity Reconciliation Act (1996)
SRDC	The Social Research and Demonstration Corporation
SSP-A	The Self-Sufficiency Project for Applicants
SSP-R	The Self-Sufficiency Project for Recipients
TANF	Temporary Assistance for Needy Families (previously AFDC)

Appendix 2. Search strategy for all databases searched

1. Medline Ovid MEDLINE(R) 1946 to March Week 4 2016 15.4.16

1. (never married adj2 (mother* or father* or parent*)).ab,ti.
2. (separated adj2 (mother* or father* or parent*)).ab,ti.
3. exp Single parent/
4. exp Single-parent-family/
5. fatherless famil*.ab,ti.
6. fragile famil*.ab,ti.
7. lone father*.ab,ti.
8. Lone mother*.ab,ti.
9. Lone parent*.ab,ti.
10. motherless famil*.ab,ti.
11. One parent*.ab,ti.
12. single father*.ab,ti.
13. Single mother*.ab,ti.
14. Single-parent*.ab,ti.
15. sole father*.ab,ti.
16. sole mother*.ab,ti.
17. Sole parent*.ab,ti.
18. sole registrant*.ab,ti.
19. unmarried father*.ab,ti.
20. unmarried mother*.ab,ti.
21. unwed father*.ab,ti.
22. Unwed Mother*.ab,ti.
23. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22
24. "Canada Health and Social Transfer".ab,ti.
25. "Personal Responsibility and Work Opportunity Reconciliation Act".ab,ti.
26. "Active labor market polic*".ab,ti.
27. "Active labor market program* ".ab,ti.

28. ADFC.ab,ti.
29. "Agenda 2010".ab,ti.
30. "Aid to Families with Dependent Children".ab,ti.
31. "Allocation Parent Isole".ab,ti.
32. "ALMP".ab,ti.
33. "America Works".ab,ti.
34. (API and (work* or job* or employ* or train* or vocation*)).ab,ti.
35. "Back-to-work".ab,ti.
36. "cash benefit".ab,ti.
37. "cash incentive".ab,ti.
38. "child care assistance".ab,ti.
39. "child care provision".ab,ti.
40. "child care subsid".ab,ti.
41. "child care support".ab,ti.
42. CHST.ab,ti.
43. Community Wage.ab,ti.
44. "Domestic Purposes Benefit".ab,ti.
45. "Employment Tax Deduction".ab,ti.
46. "earning disregard".ab,ti.
47. employability.ab,ti.
48. Employment.ab,ti.
49. "Employment Program".ab,ti.
50. ETD.ab,ti.
51. exp income/
52. exp Public assistance/
53. exp Social security/
54. exp Social welfare/
55. "Family Program".ab,ti.
56. "Family Transition Program".ab,ti.
57. "financial benefit".ab,ti.
58. "financial incentive".ab,ti.
59. "financial sanction".ab,ti.
60. "Financial support".ab,ti.
61. Financial support/
62. Financing, Government/
63. FTP.ab,ti.
64. "government intervention".ab,ti.
65. "Government program".ab,ti.
66. Government Programs/
67. "health care provision".ab,ti.
68. "health care subsid".ab,ti.
69. "health insurance provision".ab,ti.
70. "health insurance subsid".ab,ti.
71. "Hilfe zum Arbeit".ab,ti.
72. "Hilfe zum Lebensunterhalt".ab,ti.
73. "human capital development".ab,ti.
74. "income benefit".ab,ti.
75. "income incentive".ab,ti.
76. "income supplement".ab,ti.
77. "Income support".ab,ti.
78. "Individual Re-integration Agreement".ab,ti.
79. IRO.ab,ti.
80. Job.ab,ti.

81. Jobbskatteavdraget.ab,ti.
82. Jobless*.ab,ti.
83. “labo?r force attachment*”.ab,ti.
84. “labo?r force participation”.ab,ti.
85. “Labo?r market activation”.ab,ti.
86. “mandatory employment”.ab,ti.
87. MFIP.ab,ti.
88. “Minnesota Family Investment Program”.ab,ti.
89. “monetary benefit*”.ab,ti.
90. “monetary incentive*”.ab,ti.
91. “monetary support”.ab,ti.
92. ((childcare or child care) adj allowance*).ab,ti.
93. “National Evaluation of Welfare-to work Strategies”.ab,ti.
94. NDLP.ab,ti.
95. “New Deal for Lone Parents”.ab,ti.
96. “New Hope Project”.ab,ti.
97. “Newstart allowance”.ab,ti.
98. NEWWS.ab,ti.
99. “Ontario Works”.ab,ti.
100. Poverty.ab,ti.
101. PRWORA.ab,ti.
102. “public welfare reform*”.ab,ti.
103. (Retrain* or Re-train*).ab,ti.
104. RMI.ab,ti.
105. sanctions.ab,ti.
106. “Self-Sufficiency Project”.ab,ti.
107. “Revenu Minimum d’Insertion”.ab,ti.
108. “Social assistance”.ab,ti.
109. SSP.ab,ti.
110. TANF.ab,ti.
111. “Temporary Assistance for Needy Families”.ab,ti.
112. “time limit*”.ab,ti.
113. Training.ab,ti.
114. Unemployment.ab,ti.
115. Vocation*.ab,ti.
116. Welfare.ab,ti.
117. “work first strateg*”.ab,ti.
118. “Work for your dole”.ab,ti.
119. work*.mp.
120. “Working For Families”.ab,ti.
121. “tax credit*”.ab,ti.
122. 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 or 78 or 79 or 80 or 81 or 82 or 83 or 84 or 85 or 86 or 87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97 or 98 or 99 or 100 or 101 or 102 or 103 or 104 or 105 or 106 or 107 or 108 or 109 or 110 or 111 or 112 or 113 or 114 or 115 or 116 or 117 or 118 or 119 or 120 or 121
123. randomized controlled trial.pt.
124. controlled clinical trial.pt.
125. randomized.ab.
126. placebo.ab.
127. drug therapy.fs.
128. randomly.ab.
129. trial.ab.

130. groups.ab.
 131. or/123-130
 132. exp animals/ not humans.sh.
 133. 131 not 132
 134. 23 and 122 and 133
- 2. Embase 1947-Present, updated daily 15.4.16**
1. never married adj2 (mother* or father* or parent*).ab,ti.
 2. (separated adj2 (mother* or father* or parent*).ab,ti.
 3. exp Single parent/
 4. fatherless famil*.ab,ti.
 5. fragile famil*.ab,ti.
 6. lone father*.ab,ti.
 7. Lone mother*.ab,ti.
 8. Lone parent*.ab,ti.
 9. motherless famil*.ab,ti.
 10. One parent*.ab,ti.
 11. single father*.ab,ti.
 12. Single mother*.ab,ti.
 13. Single-parent*.ab,ti.
 14. sole father*.ab,ti. 1
 15. sole mother*.ab,ti.
 16. Sole parent*.ab,ti.
 17. sole registrant*.ab,ti.
 18. unmarried father*.ab,ti.
 19. unmarried mother*.ab,ti.
 20. unwed father*.ab,ti.
 21. Unwed Mother*.ab,ti.
 22. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21.
 23. "Canada Health and Social Transfer".ab,ti.
 24. "Personal Responsibility and Work Opportunity Reconciliation Act".ab,ti.
 25. "Active labo?r market polic*".ab,ti.
 26. "Active labo?r market program* ".ab,ti.
 27. ADFC.ab,ti.
 28. "Agenda 2010".ab,ti.
 29. "Aid to Families with Dependent Children".ab,ti.
 30. "Allocation Parent Isole".ab,ti.
 31. "ALMP".ab,ti.
 32. "America Works".ab,ti.
 33. (API and (work* or job* or employ* or train* or vocation*)).ab,ti.
 34. "Back-to-work".ab,ti.
 35. "cash benefit*".ab,ti.
 36. "cash incentive*".ab,ti.
 37. "child care assistance".ab,ti.
 38. "child care provision*".ab,ti.
 39. "child care subsid*".ab,ti.
 40. "child care support".ab,ti.
 41. CHST.ab,ti.
 42. Community Wage.ab,ti.
 43. "Domestic Purposes Benefit".ab,ti.
 44. "Employment Tax Deduction".ab,ti.
 45. "earning disregard*".ab,ti.
 46. employability.ab,ti.
 47. Employment.ab,ti.

48. "Employment Program*" .ab,ti.
49. ETD.ab,ti.
50. exp income/
51. exp Social security/
52. exp Social welfare/
53. "Family Program*" .ab,ti.
54. "Family Transition Program*" .ab,ti.
55. "financial benefit*" .ab,ti. 1111
56. "financial incentive*" .ab,ti.
57. "financial sanction*" .ab,ti.
58. "Financial support" .ab,ti.
59. Financial support/
60. Financing, Government/
61. FTP.ab,ti.
62. "government intervention*" .ab,ti.
63. "Government program*" .ab,ti.
64. Government Programs/
65. "health care provision*" .ab,ti.
66. "health care subsid*" .ab,ti.
67. "health insurance provision*" .ab,ti.
68. "health insurance subsid*" .ab,ti.
69. "Hilfe zum Arbeit" .ab,ti.
70. "Hilfe zum Lebensunterhalt" .ab,ti.
71. "human capital development" .ab,ti.
72. "income benefit*" .ab,ti.
73. "income incentive*" .ab,ti.
74. "income supplement*" .ab,ti.
75. "Income support" .ab,ti.
76. "Individual Re-integration Agreement" .ab,ti.
77. IRO.ab,ti.
78. Job.ab,ti.
79. Jobbskatteavdraget.ab,ti.
80. Jobless* .ab,ti.
81. "labo?r force attachment*" .ab,ti.
82. "labo?r force participation" .ab,ti.
83. "Labo?r market activation" .ab,ti.
84. "mandatory employment" .ab,ti.
85. MFIP.ab,ti.
86. "Minnesota Family Investment Program" .ab,ti.
87. "monetary benefit*" .ab,ti.
88. "monetary incentive*" .ab,ti.
89. "monetary support" .ab,ti.
90. ((childcare or child care) adj allowance*) .ab,ti.
91. "National Evaluation of Welfare-to work Strategies" .ab,ti.
92. NDLP.ab,ti.
93. "New Deal for Lone Parents" .ab,ti.
94. "New Hope Project" .ab,ti.
95. "Newstart allowance" .ab,ti.
96. NEWS.ab,ti.
97. "Ontario Works" .ab,ti.
98. Poverty.ab,ti.
99. PRWORA.ab,ti.
100. "public welfare reform*" .ab,ti.

101. (Retrain* or Re-train*).ab,ti.
102. RMI.ab,ti.
103. sanctions.ab,ti.
104. "Self-Sufficiency Project".ab,ti.
105. "Revenu Minimum d'Insertion".ab,ti.
106. "Social assistance".ab,ti.
107. SSP.ab,ti.
108. TANF.ab,ti.
109. "Temporary Assistance for Needy Families".ab,ti.
110. "time limit*".ab,ti.
111. Training.ab,ti.
112. Unemployment.ab,ti.
113. Vocation*.ab,ti.
114. Welfare.ab,ti.
115. "work first strateg*".ab,ti.
116. "Work for your dole".ab,ti.
117. work*.mp.
118. "Working For Families".ab,ti.
119. "tax credit*".ab,ti.
120. exp "lowest income group"/
121. exp "social care"/
122. "Public assistance".ab,ti.
123. or/23-122
124. Random*.ab,ti.
125. Factorial*.ab,ti.
126. Crossover*.ab,ti.
127. cross over*.ab,ti.
128. cross-over*.ab,ti.
129. .placebo*.ab,ti.
130. (doubl* adj blind*).ab,ti.
131. (singl* adj blind*).ab,ti.
132. assign*.ab,ti.
133. allocate*.ab,ti.
134. volunteer*.ab,ti.
135. .exp crossover-procedure/
136. exp double-blind procedure/
137. exp randomized controlled trial/
138. exp single-blind procedure/
139. or/124-138
140. 22 and 123 and 139

3. Psycinfo (EBSCOhost) 15.4.16

S1. (DE "Single Parents" OR DE "Single Fathers" OR DE "Single Mothers") or TX (never married n2 mother*) or TX (never married n2 father*) or TX (never married n2 parent*) or TX (separated n2 mother*) or TX (separated n2 father*) or TX (separated n2 parent*) or TI fatherless famil* or AB fatherless famil* or TI fragile famil* or AB fragile famil* or TI lone father* or AB lone father* or TI Lone mother* or AB Lone mother* or TI Lone parent* or AB Lone parent* or TI never married parent* or AB never married parent* or TI "motherless famil*" OR AB "motherless famil*" OR TI "One parent*" OR AB "One parent*" OR TI "single father*" OR AB "single father*" OR TI "Single mother*" OR AB "Single mother*" OR TI "Single-parent*" OR AB "Single-parent*" OR TI "sole father*" OR AB "sole father*" OR TI "sole mother*" OR AB "sole mother*" OR TI "Sole parent*" OR AB "Sole parent*" OR TI "sole registrant*" OR AB "sole registrant*" OR TI "unmarried father*" OR AB "unmarried father*" OR TI "unmarried mother*" OR AB "unmarried mother*" OR TI "unwed father*" OR AB "unwed father*" OR TI "Unwed Mother*" OR AB "Unwed Mother*")

S2. DE "Income Level" OR DE "Lower Income Level" OR DE "Middle Income Level" OR DE "Upper Income Level" OR DE "Social Security" or TI "Social security" or AB "Social security" or TI ("Canada Health and Social Transfer") or AB ("Canada Health and Social Transfer") or TI ("Personal Responsibility and Work Opportunity Reconciliation Act") or AB ("Personal Responsibility and

Work Opportunity Reconciliation Act”) or TI “Active labor market polic*” or AB “Active labor market polic*” or TI ADFC or AB ADFC or TI “Agenda 2010” or AB “Agenda 2010” or TI “cash benefit*” or AB “cash benefit*” or TI “cash incentive*” or AB “cash incentive*” or TI “child care assistance” or AB “child care assistance” or TI “child care provision*” or AB “child care provision*” or TI “child care subsid*” or AB “child care subsid*” or TI “child care support” or AB “child care support” or TI “child care support” or AB “child care support” or TI CHST or AB CHST or TI “Community Wage” or AB “Community Wage” or TI “Domestic Purposes Benefit” or AB “Domestic Purposes Benefit” or TI “Employment Tax Deduction” or AB “Employment Tax Deduction” or TI “earning disregard*” or AB “earning disregard*” or TI employability or AB employability or TI Employment or AB Employment or TI “Employment Program*” or AB “Employment Program*” or TI ETD or AB ETD or TI “Family Program*” or AB “Family Program*” or TI “Family Transition Program*” or AB “Family Transition Program*” or TI “financial benefit*” or AB “financial benefit*” or TI “financial incentive*” or AB “financial incentive*” or TI “financial sanction*” or AB “financial sanction*” or TI “Financial support” or AB “Financial support” or TI Financing, Government or AB Financing, Government or TI FTP or AB FTP or TI “government intervention*” or AB “government intervention*” or TI “Government program*” or AB “Government program*” or “Government Programs*” or “Government Programs*” or TI “health care provision*” or AB “health care provision*” or TI “health insurance subsid*” or AB “health insurance subsid*” or TI “Hilfe zum Arbeit” or AB “Hilfe zum Arbeit” or TI “Hilfe zum Lebensunterhalt” or AB “Hilfe zum Lebensunterhalt” or TI “Hilfe zum Lebensunterhalt” or AB “Hilfe zum Lebensunterhalt” or TI “income benefit*” or AB “income benefit*” or TI “income incentive*” or AB “income incentive*” or TI “income supplement*” or AB “income supplement*” or TI “Income support” or AB “Income support” or TI “Individual Re-integration Agreement” or AB “Individual Re-integration Agreement” or TI IRO or AB IRO or TI Job or AB Job or TI Jobbskatteavdraget or AB Jobbskatteavdraget or TI Jobless* or AB Jobless* or TI “labor force attachment*” or AB “labor force attachment*” or TI “labor force participation” or AB “labor force participation” or TI “Labor market activation” or AB “Labor market activation” or TI “mandatory employment” or AB “mandatory employment” or TI MFIP or AB MFIP or TI “Minnesota Family Investment Program” or AB “Minnesota Family Investment Program” or TI “monetary benefit*” or AB “monetary benefit*” or TI “monetary incentive*” or AB “monetary incentive*” or TI “monetary support” or AB “monetary support” or TI “childcare allowance*” or AB “childcare allowance*” or TI “child care allowance*” or AB “child care allowance*” or TI “National Evaluation of Welfare-to work Strategies” or AB “National Evaluation of Welfare-to work Strategies” or TI NDLP or AB NDLP or TI “New Deal for Lone Parents” or AB “New Deal for Lone Parents” or TI “New Hope Project” or AB “New Hope Project” or TI “Newstart allowance” or AB “Newstart allowance” or TI NEWWS or AB NEWWS or TI “Ontario Works” or AB “Ontario Works” or TI Poverty or AB Poverty or TI PRWORA or AB PRWORA or TI “public welfare reform*” or AB “public welfare reform*” or TI Retrain* or AB Retrain* or TI Re-train* or AB Re-train* or TI RMI or AB RMI or TI sanctions or AB sanctions or TI “Self-Sufficiency Project” or AB “Self-Sufficiency Project” or TI “Revenu Minimum d’Insertion” or AB “Revenu Minimum d’Insertion” or TI “Social assistance” or AB “Social assistance” or TI SSP or AB SSP or TI TANF or AB TANF or TI “Temporary Assistance for Needy Families” or AB “Temporary Assistance for Needy Families” or TI “time limit*” or AB “time limit*” or TI Training or AB Training or TI Unemployment or AB Unemployment or TI Vocation* or AB Vocation* or TI Welfare or AB Welfare or TI “work first strateg*” or AB “work first strateg*” or TI work* or AB work* or TI “Working For Families” or AB “Working For Families” or TI “tax credit*” or AB “tax credit*” Or TI “Public assistance” or TI “Social welfare” Or AB “Public assistance” or AB “Social welfare”

S3. quasi-random* or randomized controlled trial or controlled clinical trial or clinical trial or trial or random*

S4. S1 AND S2 AND S3

4. ERIC (EBSCOhost) 15.4.16

S1. SU(“one parent family”) OR (“fatherless family”) OR TI(“single parent*”) OR AB(“single parent*”) OR TI(“unmarried father*”) OR AB(“unmarried father*”) OR TI(“never married father*”) OR AB(“never married father*”) OR TI(“never married mother*”) OR AB(“never married mother*”) OR TI(“never married parent*”) OR AB(“never married parent*”) OR TI(“separated mother*”) OR AB(“separated mother*”) OR TI(“separated father*”) OR AB(“separated father*”) OR TI(“Single-parent-family”) OR AB(“Single-parent-family”) OR TI(“fatherless famil*”) OR AB(“fatherless famil*”) OR TI(“fragile famil*”) OR AB(“fragile famil*”) OR TI(“lone father*”) OR AB(“lone father*”) OR TI(“Lone mother*”) OR AB(“Lone mother*”) OR TI(“motherless famil*”) OR AB(“motherless famil*”) OR TI(“One parent*”) OR AB(“One parent*”) OR TI(“single father*”) OR AB(“single father*”) OR TI(“Single mother*”) OR AB(“Single mother*”) OR TI(“Single-parent*”) OR AB(“Single-parent*”) OR TI(“sole father*”) OR AB(“sole father*”) OR TI(“sole mother*”) OR AB(“sole mother*”) OR TI(“Sole parent*”) OR AB(“Sole parent*”) OR TI(“sole registrant*”) OR AB(“sole registrant*”) OR TI(“unmarried father*”) OR AB(“unmarried father*”) OR TI(“unmarried mother*”) OR AB(“unmarried mother*”) OR TI(“unwed father*”) OR AB(“unwed father*”) OR TI(“Unwed Mother*”) OR AB(“Unwed Mother*”)

S2. SU(“welfare services”) OR SU(income) OR SU(“ family income ”) OR SU(“ guaranteed income ”) OR SU(salaries) OR SU(“ teacher salaries ”) OR SU(“ merit pay ”) OR SU(wages) OR SU(“ minimum wage ”) OR SU(“ low income”) OR TI(“Canada Health and Social Transfer”) OR AB(“Canada Health and Social Transfer”) OR TI(“Personal Responsibility and Work Opportunity Reconciliation Act”) OR AB(“Personal Responsibility and Work Opportunity Reconciliation Act”) OR TI(“Active labor market polic*”) OR AB(“Active labor market polic*”) OR TI(“Active labor market program*”) OR AB(“Active labor market program*”) OR TI(ADFC)

OR AB(ADFC) OR TI("Agenda 2010") OR AB("Agenda 2010") OR TI("Aid to Families with Dependent Children") OR AB("Aid to Families with Dependent Children") OR TI("Allocation Parent Isole") OR AB("Allocation Parent Isole") OR TI(ALMP) OR AB(ALMP) OR TI("America Works") OR AB("America Works ") OR TI(API) OR AB(API) OR TI(" Back-to-work") OR AB("Back-to-work") OR TI("cash benefit*") OR AB("cash benefit*") OR TI("cash incentive*") OR AB("cash incentive*") OR TI("child care assistance") OR AB("child care assistance") OR TI("child care provision*") OR AB("child care provision*") OR TI("child care subsid*") OR AB("child care subsid*") OR TI("child care support") OR AB("child care support ") OR TI(CHST) OR AB(CHST) OR TI(Community Wage) OR AB("Community Wage") OR TI(" Domestic Purposes Benefit") OR AB("Domestic Purposes Benefit") OR TI("Employment Tax Deduction") OR AB("Employment Tax Deduction") OR TI("earning disregard*") OR AB("earning disregard* ") OR TI(employability) OR AB(employability) OR TI(Employment) OR AB(Employment) OR TI(" Employment Program*") OR AB("Employment Program* ") OR TI(ETD) OR AB(ETD) OR TI(income) OR AB(income) OR TI(Public assistance) OR AB(Public assistance) OR TI(Social security) OR AB(Social security) OR TI(Social welfare) OR AB(Social welfare) OR TI(" Family Program*") OR AB("Family Program*") OR TI("Family Security Program*") OR AB("Family Transition Program*") OR TI("financial benefit*") OR AB("financial benefit*") OR TI("financial incentive*") OR AB("financial incentive*") OR TI("financial sanction*") OR AB("financial sanction*") OR TI("Financial support") OR AB("Financial support ") OR TI(Financial support) OR AB(Financial support) OR TI(Financing, Government) OR AB(Financing, Government) OR TI(FTP) OR AB(FTP) OR TI(" government intervention*") OR AB("government intervention*") OR TI("Government program*") OR AB("Government program* ") OR TI(Government Programs) OR AB(Government Programs) OR TI(" health care provision*") OR AB("health care provision*") OR TI("health care subsid*") OR AB("health care subsid*") OR TI("health insurance provision*") OR AB("health insurance provision*") OR TI("health insurance subsid*") OR AB("health insurance subsid*") OR TI("Hilfe zum Arbeit") OR AB("Hilfe zum Arbeit") OR TI("Hilfe zum Lebensunterhalt") OR AB("Hilfe zum Lebensunterhalt") OR TI("human capital development") OR AB("human capital development") OR TI("income benefit*") OR AB("income benefit*") OR TI("income incentive*") OR AB("income incentive*") OR TI("income supplement*") OR AB("income supplement*") OR TI("Income support") OR AB("Income support") OR TI("Individual Re-integration Agreement") OR AB("Individual Re-integration Agreement ") OR TI(IRO) OR AB(IRO) OR TI(Job) OR AB(Job) OR TI(Jobbskatteavdraget) OR AB(Jobbskatteavdraget) OR TI(Jobless*) OR AB(Jobless*) OR TI(" labo:r force attachment*") OR AB("labo:r force attachment*") OR TI("labo:r force participation") OR AB("labo:r force participation") OR TI("Labo:r market activation") OR AB("Labo:r market activation") OR TI("mandatory employment") OR AB("mandatory employment ") OR TI(MFIP) OR AB(MFIP) OR TI(" Minnesota Family Investment Program") OR AB("Minnesota Family Investment Program") OR TI("monetary benefit*") OR AB("monetary benefit*") OR TI("monetary incentive*") OR AB("monetary incentive*") OR TI("monetary support") OR AB("monetary support") OR TI("childcare allowance*") OR AB("childcare allowance*") OR TI("child care allowance*") OR AB("child care allowance*") OR AB("National Evaluation of Welfare-to work Strategies") OR AB("National Evaluation of Welfare-to work Strategies") OR TI(NDLP) OR AB(NDLP) OR TI("New Deal for Lone Parents") OR AB("New Deal for Lone Parents") OR TI("New Hope Project") OR AB("New Hope Project") OR TI("Newstart allowance") OR AB("Newstart allowance") OR TI(NEWWS) OR AB(NEWWS) OR TI("Ontario Works") OR AB("Ontario Works") OR TI(Poverty) OR AB(Poverty) OR TI(PRWORA) OR AB(PRWORA) OR TI("public welfare reform*") OR AB("public welfare reform*") OR TI(Retrain*) OR TI(Retrain*) OR AB(Retrain*) OR AB(Re-train*) OR TI(RMI) OR AB(RMI) OR TI(sanctions) OR AB(sanctions) OR TI("Self-Sufficiency Project") OR AB("Self-Sufficiency Project") OR TI("Revenu Minimum d'Insertion") OR AB("Revenu Minimum d'Insertion") OR TI("Social assistance") OR AB("Social assistance") OR TI(SSP) OR AB(SSP) OR TI(TANF) OR AB(TANF) OR TI("Temporary Assistance for Needy Families") OR AB("Temporary Assistance for Needy Families") OR TI("time limit*") OR AB("time limit*") OR TI(Training) OR AB(Training) OR TI(Unemployment) OR AB(Unemployment) OR TI(Vocation*) OR AB(Vocation*) OR TI(Welfare) OR AB(Welfare) OR TI("work first strateg*") OR AB("work first strateg*") OR TI("Work for your dole") OR AB("Work for your dole") OR TI(work*) OR AB(work*) OR TI("Working For Families") OR AB("Working For Families") OR TI("tax credit*") OR AB("tax credit*")

S3. TI("quasi-random*") OR TI("randomi?ed controlled trial") OR TI("controlled clinical trial") OR AB("quasi-random*") OR AB("randomi?ed controlled trial") OR AB("controlled clinical trial") OR TI("clinical trial") OR TI(trial) OR TI(random*) OR AB("clinical trial") OR AB(trial) OR AB(random*)

S4. S1 AND S2 AND S3

5. Socindex (EBSCOhost) 15.4.16

S1. ((DE "PUBLIC welfare" OR DE "ALMSHOUSES" OR DE "ASYLUMS" OR DE "CHILD welfare" OR DE "COMMUNITY organization" OR DE "FAITH-based initiative (Government program)" OR DE "FOOD stamps" OR DE "FRESH-air charity" OR DE "INCOME maintenance programs" OR DE "INSTITUTIONAL care" OR DE "LEGAL assistance to the poor" OR DE "MATERNALISM (Public welfare)" OR DE "MILITARY social work" OR DE "NATIONAL service" OR DE "SOCIAL medicine" OR DE "SOCIAL service, Rural" OR DE "TRANSIENTS, Relief of" OR DE "WELFARE fraud" OR DE "WELFARE state") OR (DE "SOCIAL security" OR DE "WORKERS' compensation")) OR (DE "FAMILY policy" OR DE "CHILD welfare") or TI "Social

security” or AB “Social security” or TI (“Canada Health and Social Transfer”) or AB (“Canada Health and Social Transfer”) or TI (“Personal Responsibility and Work Opportunity Reconciliation Act”) or AB (“Personal Responsibility and Work Opportunity Reconciliation Act”) or TI “Active labor market policy” or AB “Active labor market policy” or TI ADFC or AB ADFC or TI “Agenda 2010” or AB “Agenda 2010” or TI “cash benefit” or AB “cash benefit” or TI “cash incentive” or AB “cash incentive” or TI “child care assistance” or AB “child care assistance” or TI “child care provision” or AB “child care provision” or TI “child care subsidy” or AB “child care subsidy” or TI “child care support” or AB “child care support” or TI “child care support” or AB “child care support” or TI CHST or AB CHST or TI “Community Wage” or AB “Community Wage” or TI “Domestic Purposes Benefit” or AB “Domestic Purposes Benefit” or TI “Employment Tax Deduction” or AB “Employment Tax Deduction” or TI “earning disregard” or AB “earning disregard” or TI employability or AB employability or TI Employment or AB Employment or TI “Employment Program” or AB “Employment Program” or TI ETD or AB ETD or TI “Family Program” or AB “Family Program” or TI “Family Transition Program” or AB “Family Transition Program” or TI “financial benefit” or AB “financial benefit” or TI “financial incentive” or AB “financial incentive” or TI “financial sanction” or AB “financial sanction” or TI “Financial support” or AB “Financial support” or TI Financing, Government or AB Financing, Government or TI FTP or AB FTP or TI “government intervention” or AB “government intervention” or TI “Government program” or AB “Government program” or “Government Programs” or “Government Programs” or TI “health care provision” or AB “health care provision” or TI “health insurance subsidy” or AB “health insurance subsidy” or TI “Hilfe zum Arbeit” or AB “Hilfe zum Arbeit” or TI “Hilfe zum Lebensunterhalt” or AB “Hilfe zum Lebensunterhalt” or TI “Hilfe zum Lebensunterhalt” or AB “Hilfe zum Lebensunterhalt” or TI “income benefit” or AB “income benefit” or TI “income incentive” or AB “income incentive” or TI “income supplement” or AB “income supplement” or TI “Income support” or AB “Income support” or TI “Individual Re-integration Agreement” or AB “Individual Re-integration Agreement” or TI IRO or AB IRO or TI Job or AB Job or TI Jobbskatteavdraget or AB Jobbskatteavdraget or TI Jobless* or AB Jobless* or TI “labor force attachment” or AB “labor force attachment” or TI “labor force participation” or AB “labor force participation” or TI “Labor market activation” or AB “Labor market activation” or TI “mandatory employment” or AB “mandatory employment” or TI MFIP or AB MFIP or TI “Minnesota Family Investment Program” or AB “Minnesota Family Investment Program” or TI “monetary benefit” or AB “monetary benefit” or TI “monetary incentive” or AB “monetary incentive” or TI “monetary support” or AB “monetary support” or TI “childcare allowance” or AB “childcare allowance” or TI “child care allowance” or AB “child care allowance” or TI “National Evaluation of Welfare-to work Strategies” or AB “National Evaluation of Welfare-to work Strategies” or TI NDLP or AB NDLP or TI “New Deal for Lone Parents” or AB “New Deal for Lone Parents” or TI “New Hope Project” or AB “New Hope Project” or TI “Newstart allowance” or AB “Newstart allowance” or TI NEWWS or AB NEWWS or TI “Ontario Works” or AB “Ontario Works” or TI Poverty or AB Poverty or TI PRWORA or AB PRWORA or TI “public welfare reform” or AB “public welfare reform” or TI Retrain* or AB Retrain* or TI Re-train* or AB Re-train* or TI RMI or AB RMI or TI sanctions or AB sanctions or TI “Self-Sufficiency Project” or AB “Self-Sufficiency Project” or TI “Revenu Minimum d’Insertion” or AB “Revenu Minimum d’Insertion” or TI “Social assistance” or AB “Social assistance” or TI SSP or AB SSP or TI TANF or AB TANF or TI “Temporary Assistance for Needy Families” or AB “Temporary Assistance for Needy Families” or TI “time limit” or AB “time limit” or TI Training or AB Training or TI Unemployment or AB Unemployment or TI Vocation* or AB Vocation* or TI Welfare or AB Welfare or TI “work first strategy” or AB “work first strategy” or TI work* or AB work* or TI “Working For Families” or AB “Working For Families” or TI “tax credit” or AB “tax credit” Or TI “Public assistance” or TI “Social welfare” Or AB “Public assistance” or AB “Social welfare”

S2. TX (never married n2 mother*) or TX (never married n2 father*) or TX (never married n2 parent*) or TX (separated n2 mother*) or TX (separated n2 father*) or TX (separated n2 parent*) or TI fatherless famil* or AB fatherless famil* or TI fragile famil* or AB fragile famil* or TI lone father* or AB lone father* or TI Lone mother* or AB Lone mother* or TI Lone parent* or AB Lone parent* or TI never married parent* or AB never married parent* or TI “motherless famil*” OR AB “motherless famil*” OR TI “One parent*” OR AB “One parent*” OR TI “single father*” OR AB “single father*” OR TI “Single mother*” OR AB “Single mother*” OR TI “Single-parent*” OR AB “Single-parent*” OR TI “sole father*” OR AB “sole father*” OR TI “sole mother*” OR AB “sole mother*” OR TI “Sole parent*” OR AB “Sole parent*” OR TI “sole registrant*” OR AB “sole registrant*” OR TI “unmarried father*” OR AB “unmarried father*” OR TI “unmarried mother*” OR AB “unmarried mother*” OR TI “unwed father*” OR AB “unwed father*” OR TI “Unwed Mother*” OR AB “Unwed Mother*”

S3. quasi-random* or randomized controlled trial or controlled clinical trial or clinical trial or trial or random*

S4. S1 AND S2 AND S3

6. CINAHL (EBSCOhost) 15.4.16

S1. (MH “Income”) or (MH “Public Assistance+”) or (MH “Social Welfare+”) or TI “Social security” or AB “Social security” or TI (“Canada Health and Social Transfer”) or AB (“Canada Health and Social Transfer”) or TI (“Personal Responsibility and Work Opportunity Reconciliation Act”) or AB (“Personal Responsibility and Work Opportunity Reconciliation Act”) or TI “Active labor market policy” or AB “Active labor market policy” or TI ADFC or AB ADFC or TI “Agenda 2010” or AB “Agenda 2010” or TI “Social security” or AB “Social security” or TI (“Canada Health and Social Transfer”) or AB (“Canada Health and Social

Transfer”) or TI (“Personal Responsibility and Work Opportunity Reconciliation Act”) or AB (“Personal Responsibility and Work Opportunity Reconciliation Act”) or TI “Active labor market policy” or AB “Active labor market policy” or TI ADFC or AB ADFC or TI “Agenda 2010” or AB “Agenda 2010” or TI “cash benefit” or AB “cash benefit” or TI “cash incentive” or AB “cash incentive” or TI “child care assistance” or AB “child care assistance” or TI “child care provision” or AB “child care provision” or TI “child care subsidy” or AB “child care subsidy” or TI “child care support” or AB “child care support” or TI “child care support” or AB “child care support” or TI CHST or AB CHST or TI “Community Wage” or AB “Community Wage” or TI “Domestic Purposes Benefit” or AB “Domestic Purposes Benefit” or TI “Employment Tax Deduction” or AB “Employment Tax Deduction” or TI “earning disregard” or AB “earning disregard” or TI employability or AB employability or TI Employment or AB Employment or TI “Employment Program” or AB “Employment Program” or TI ETD or AB ETD or TI “Family Program” or AB “Family Program” or TI “Family Transition Program” or AB “Family Transition Program” or TI “financial benefit” or AB “financial benefit” or TI “financial incentive” or AB “financial incentive” or TI “financial sanction” or AB “financial sanction” or TI “Financial support” or AB “Financial support” or TI Financing, Government or AB Financing, Government or TI FTP or AB FTP or TI “government intervention” or AB “government intervention” or TI “Government program” or AB “Government program” or “Government Programs” or “Government Programs” or TI “health care provision” or AB “health care provision” or TI “health insurance subsidy” or AB “health insurance subsidy” or TI “Hilfe zum Arbeit” or AB “Hilfe zum Arbeit” or TI “Hilfe zum Lebensunterhalt” or AB “Hilfe zum Lebensunterhalt” or TI “Hilfe zum Lebensunterhalt” or AB “Hilfe zum Lebensunterhalt” or TI “income benefit” or AB “income benefit” or TI “income incentive” or AB “income incentive” or TI “income supplement” or AB “income supplement” or TI “Income support” or AB “Income support” or TI “Individual Re-integration Agreement” or AB “Individual Re-integration Agreement” or TI IRO or AB IRO or TI Job or AB Job or TI Jobskatteavdraget or AB Jobskatteavdraget or TI Jobless* or AB Jobless* or TI “labor force attachment” or AB “labor force attachment” or TI “labor force participation” or AB “labor force participation” or TI “Labor market activation” or AB “Labor market activation” or TI “mandatory employment” or AB “mandatory employment” or TI MFIP or AB MFIP or TI “Minnesota Family Investment Program” or AB “Minnesota Family Investment Program” or TI “monetary benefit” or AB “monetary benefit” or TI “monetary incentive” or AB “monetary incentive” or TI “monetary support” or AB “monetary support” or TI “childcare allowance” or AB “childcare allowance” or TI “child care allowance” or AB “child care allowance” or TI “National Evaluation of Welfare-to work Strategies” or AB “National Evaluation of Welfare-to work Strategies” or TI NDLP or AB NDLP or TI “New Deal for Lone Parents” or AB “New Deal for Lone Parents” or TI “New Hope Project” or AB “New Hope Project” or TI “Newstart allowance” or AB “Newstart allowance” or TI NEWWS or AB NEWWS or TI “Ontario Works” or AB “Ontario Works” or TI Poverty or AB Poverty or TI PRWORA or AB PRWORA or TI “public welfare reform” or AB “public welfare reform” or TI Retrain* or AB Retrain* or TI Re-train* or AB Re-train* or TI RMI or AB RMI or TI sanctions or AB sanctions or TI “Self-Sufficiency Project” or AB “Self-Sufficiency Project” or TI “Revenu Minimum d’Insertion” or AB “Revenu Minimum d’Insertion” or TI “Social assistance” or AB “Social assistance” or TI SSP or AB SSP or TI TANF or AB TANF or TI “Temporary Assistance for Needy Families” or AB “Temporary Assistance for Needy Families” or TI “time limit” or AB “time limit” or TI Training or AB Training or TI Unemployment or AB Unemployment or TI Vocation* or AB Vocation* or TI Welfare or AB Welfare or TI “work first strategy” or AB “work first strategy” or TI work* or AB work* or TI “Working For Families” or AB “Working For Families” or TI “tax credit” or AB “tax credit”

S2. TX (never married n2 mother*) or TX (never married n2 father*) or TX (never married n2 parent*) or TX (separated n2 mother*) or TX (separated n2 father*) or TX (separated n2 parent*) or TI fatherless famil* or AB fatherless famil* or TI fragile famil* or AB fragile famil* or TI lone father* or AB lone father* or TI Lone mother* or AB Lone mother* or TI Lone parent* or AB Lone parent* or TI never married parent* or AB never married parent* or TI “motherless famil*” OR AB “motherless famil*” OR TI “One parent*” OR AB “One parent*” OR TI “single father*” OR AB “single father*” OR TI “Single mother*” OR AB “Single mother*” OR TI “Single-parent*” OR AB “Single-parent*” OR TI “sole father*” OR AB “sole father*” OR TI “sole mother*” OR AB “sole mother*” OR TI “Sole parent*” OR AB “Sole parent*” OR TI “sole registrant*” OR AB “sole registrant*” OR TI “unmarried father*” OR AB “unmarried father*” OR TI “unmarried mother*” OR AB “unmarried mother*” OR TI “unwed father*” OR AB “unwed father*” OR TI “Unwed Mother*” OR AB “Unwed Mother*”

S3. MH “Quantitative Studies” or MH “Clinical Trials+” or MH “Placebos” or MH “randomisation” or TX allocat* random* or TX placebo* or TX random* allocat* or TX randomi* control* trial* or TX (singl* n1 blind*) or TX (singl* n1 mask*) or TX (doubl* n1 blind*) or TX (doubl* n1 mask*) or TX (tripl* n1 blind*) or TX (tripl* n1 mask*) or TX (trebl* n1 blind*) or TX (trebl* n1 mask*)

S4. S1 AND S2 AND S3

7. Econlit (EBSCOhost) 15.4.16

S1. (ZU “social security”) or (ZU “social security and public pensions”) or (ZU “welfare and poverty: general”) or (ZU “welfare and poverty: government programs; provision and effects of welfare programs”) or (ZU “welfare and poverty: other”) or (ZU “welfare economics: general”) or TI “Social security” or AB “Social security” or TI (“Canada Health and Social Transfer”) or AB (“Canada Health and Social Transfer”) or TI (“Personal Responsibility and Work Opportunity Reconciliation Act”) or AB (“Personal Responsibility

and Work Opportunity Reconciliation Act”) or TI “Active labor market policy” or AB “Active labor market policy” or TI ADFC or AB ADFC or TI “Agenda 2010” or AB “Agenda 2010” or TI “cash benefit” or AB “cash benefit” or TI “cash incentive” or AB “cash incentive” or TI “child care assistance” or AB “child care assistance” or TI “child care provision” or AB “child care provision” or TI “child care subsidy” or AB “child care subsidy” or TI “child care support” or AB “child care support” or TI “child care support” or AB “child care support” or TI CHST or AB CHST or TI “Community Wage” or AB “Community Wage” or TI “Domestic Purposes Benefit” or AB “Domestic Purposes Benefit” or TI “Employment Tax Deduction” or AB “Employment Tax Deduction” or TI “earning disregard” or AB “earning disregard” or TI employability or AB employability or TI Employment or AB Employment or TI “Employment Program” or AB “Employment Program” or TI ETD or AB ETD or TI “Family Program” or AB “Family Program” or TI “Family Transition Program” or AB “Family Transition Program” or TI “financial benefit” or AB “financial benefit” or TI “financial incentive” or AB “financial incentive” or TI “financial sanction” or AB “financial sanction” or TI “Financial support” or AB “Financial support” or TI Financing, Government or AB Financing, Government or TI FTP or AB FTP or TI “government intervention” or AB “government intervention” or TI “Government program” or AB “Government program” or “Government Programs” or “Government Programs” or TI “health care provision” or AB “health care provision” or TI “health insurance subsidy” or AB “health insurance subsidy” or TI “Hilfe zum Arbeit” or AB “Hilfe zum Arbeit” or TI “Hilfe zum Lebensunterhalt” or AB “Hilfe zum Lebensunterhalt” or TI “Hilfe zum Lebensunterhalt” or AB “Hilfe zum Lebensunterhalt” or TI “income benefit” or AB “income benefit” or TI “income incentive” or AB “income incentive” or TI “income supplement” or AB “income supplement” or TI “Income support” or AB “Income support” or TI “Individual Re-integration Agreement” or AB “Individual Re-integration Agreement” or TI IRO or AB IRO or TI Job or AB Job or TI Jobbskatteavdraget or AB Jobbskatteavdraget or TI Jobless* or AB Jobless* or TI “labor force attachment” or AB “labor force attachment” or TI “labor force participation” or AB “labor force participation” or TI “Labor market activation” or AB “Labor market activation” or TI “mandatory employment” or AB “mandatory employment” or TI MFIP or AB MFIP or TI “Minnesota Family Investment Program” or AB “Minnesota Family Investment Program” or TI “monetary benefit” or AB “monetary benefit” or TI “monetary incentive” or AB “monetary incentive” or TI “monetary support” or AB “monetary support” or TI “childcare allowance” or AB “childcare allowance” or TI “child care allowance” or AB “child care allowance” or TI “National Evaluation of Welfare-to work Strategies” or AB “National Evaluation of Welfare-to work Strategies” or TI NDLP or AB NDLP or TI “New Deal for Lone Parents” or AB “New Deal for Lone Parents” or TI “New Hope Project” or AB “New Hope Project” or TI “Newstart allowance” or AB “Newstart allowance” or TI NEWWS or AB NEWWS or TI “Ontario Works” or AB “Ontario Works” or TI Poverty or AB Poverty or TI PRWORA or AB PRWORA or TI “public welfare reform” or AB “public welfare reform” or TI Retrain* or AB Retrain* or TI Re-train* or AB Re-train* or TI RMI or AB RMI or TI sanctions or AB sanctions or TI “Self-Sufficiency Project” or AB “Self-Sufficiency Project” or TI “Revenu Minimum d’Insertion” or AB “Revenu Minimum d’Insertion” or TI “Social assistance” or AB “Social assistance” or TI SSP or AB SSP or TI TANF or AB TANF or TI “Temporary Assistance for Needy Families” or AB “Temporary Assistance for Needy Families” or TI “time limit” or AB “time limit” or TI Training or AB Training or TI Unemployment or AB Unemployment or TI Vocation* or AB Vocation* or TI Welfare or AB Welfare or TI “work first strategy” or AB “work first strategy” or TI work* or AB work* or TI “Working For Families” or AB “Working For Families” or TI “tax credit” or AB “tax credit” or TI “Public assistance” or TI “Social welfare” or AB “Public assistance” or AB “Social welfare” or TI income or AB income

S2. TX (never married n2 mother*) or TX (never married n2 father*) or TX (never married n2 parent*) or TX (separated n2 mother*) or TX (separated n2 father*) or TX (separated n2 parent*) or TI fatherless famil* or AB fatherless famil* or TI fragile famil* or AB fragile famil* or TI lone father* or AB lone father* or TI Lone mother* or AB Lone mother* or TI Lone parent* or AB Lone parent* or TI never married parent* or AB never married parent* or TI “motherless famil*” OR AB “motherless famil*” OR TI “One parent*” OR AB “One parent*” OR TI “single father*” OR AB “single father*” OR TI “Single mother*” OR AB “Single mother*” OR TI “Single-parent*” OR AB “Single-parent*” OR TI “sole father*” OR AB “sole father*” OR TI “sole mother*” OR AB “sole mother*” OR TI “Sole parent*” OR AB “Sole parent*” OR TI “sole registrant*” OR AB “sole registrant*” OR TI “unmarried father*” OR AB “unmarried father*” OR TI “unmarried mother*” OR AB “unmarried mother*” OR TI “unwed father*” OR AB “unwed father*” OR TI “Unwed Mother*” OR AB “Unwed Mother*”

S3. quasi-random* or randomized controlled trial or controlled clinical trial or clinical trial or trial or random*

S4. S1 AND S2 AND S3

8. The Cochrane Central Register of Controlled Trials (CENTRAL) 15.4.16

#1. (“single parent*” or “unmarried father*” or “never married father*” or “never married mother*” or “never married parent*” or “separated mother*” or “separated father*” or “Single-parent-family” or “fatherless famil*” or “fragile famil*” or “lone father*” or “Lone mother*” or “lone parent” or “motherless famil*” or “One parent*” or “single father*” or “Single mother*” or “Single-parent*” or “sole father*” or “sole mother*” or “Sole parent*” or “sole registrant*” or “unmarried father*” or “unmarried mother*” or “unwed father*” or “Unwed Mother*”):ti,ab,kw

#2. (income or "Public assistance" or "Social security" or "Social welfare" or "Canada Health Social Transfer" or "Personal Responsibility Work Opportunity Reconciliation Act" or "Active labor market polic*" or "Active labor market program*" or ADFC or "Agenda 2010" or "Aid to Families with Dependent Children" or "Allocation Parent Isole" or ALMP or "America Works" or API or "Back-to-work" or "cash benefit*" or "cash incentive*" or "child care assistance" or "child care provision*" or "child care subsid*" or "child care support" or CHST or "Community Wage" or "Domestic Purposes Benefit" or "Employment Tax Deduction" or "earning disregard*" or employability or Employment or "Employment Program*" or ETD or "Family Program*" or "Family Transition Program*" or "financial benefit*" or "financial incentive*" or "financial sanction*" or "Financial support" or "Government Financing" or FTP or "government intervention*" or "Government program*" or "Government Programs" or "health care provision*" or "health care subsid*" or "health insurance provision*" or "health insurance subsid*" or "Hilfe zum Arbeit" or "Hilfe zum Lebensunterhalt" or "human capital development" or "income benefit*" or "income incentive*" or "income supplement*" or "Income support" or "Individual Reintegration Agreement" or IRO or Job or Jobbskatteavdraget or Jobless* or "labor force attachment*" or "labor force participation" or "Labor market activation" or "mandatory employment" or MFIP or "Minnesota Family Investment Program" or "monetary benefit*" or "monetary incentive*" or "monetary support" or "childcare allowance*" or "child care allowance*" or "National Evaluation of Welfare to work Strategies" or NDLP or "New Deal for Lone Parents" or "New Hope Project" or "Newstart allowance" or NEWS or "Ontario Works" or Poverty or PRWORA or "public welfare reform*" or Retrain* or Re-train* or RMI or sanctions or "Self-Sufficiency Project" or "Revenu Minimum d'Insertion" or "Social assistance" or SSP or TANF or "Temporary Assistance for Needy Families" or "time limit*" or Training or Unemployment or Vocation* or Welfare or "work first strateg*" or "Work for your dole" or work* or "Working For Families" or "tax credit*") :ti,ab,kw

#3. #1 and #2

9. Web of Science (all databases) 15.4.16

TOPIC: (income or welfare or work* or train* or Social security or Public assistance or financ* or allowance or polic* or Retrain* or Back-to-work or employability or Employment or job or poverty or sanctions) AND TOPIC: (single parent* or unmarried father* or never married father* or never married mother* or never married parent* or separated mother* or separated father* or Single-parent-family or fatherless famil* or fragile famil* or lone father* or Lone mother* or motherless famil* or One parent* or single father* or Single mother* or Single-parent* or sole father* or sole mother* or Sole parent* or sole registrant* or unmarried father* or unmarried mother* or unwed father* or Unwed Mother*) AND TOPIC: (quasi-random* or randomized controlled trial or controlled clinical trial or quasi-random* or randomized controlled trial or controlled clinical trial or clinical trial or trial or random*)

10. Applied Social Sciences Index and Abstracts (ASSIA) (Proquest) 16.4.16

((SU(income) OR SU("social welfare") OR SU("economic welfare") OR SU("red cross") OR SU("social security") OR SU("attendance allowances") OR SU("child benefit") OR SU("disability allowances") OR SU("disability living allowance") OR SU("domestic assistance allowances") OR SU("energy allowances") OR SU("family allowances") OR SU("family credit") OR SU("furniture allowances") OR SU("housing benefits") OR SU("housing grants") OR SU("incapacity benefit") OR SU("independent living fund") OR SU("industrial injury benefits") OR SU("invalidity benefit") OR SU("maternity benefits") OR SU("medicaid") OR SU("medicare") OR SU("mobility allowances") OR SU("national provident funds") OR SU("severe weather payments") OR SU("sickness benefits") OR SU("social fund") OR SU("emergency social funds") OR TI("Canada Health and Social Transfer") OR AB("Canada Health and Social Transfer") OR TI("Personal Responsibility and Work Opportunity Reconciliation Act") OR AB("Personal Responsibility and Work Opportunity Reconciliation Act") OR TI("Active labor market polic*") OR AB("Active labor market polic*") OR TI("Active labor market program*") OR AB("Active labor market program*") OR TI(ADFC) OR AB(ADFC) OR TI("Agenda 2010") OR AB("Agenda 2010") OR TI("Aid to Families with Dependent Children") OR AB("Aid to Families with Dependent Children") OR TI("Allocation Parent Isole") OR AB("Allocation Parent Isole") OR TI(ALMP) OR AB(ALMP) OR TI("America Works") OR AB("America Works") OR TI(API) OR AB(API) OR TI("Back-to-work") OR AB("Back-to-work") OR TI("cash benefit*") OR AB("cash benefit*") OR TI("cash incentive*") OR AB("cash incentive*") OR TI("child care assistance") OR AB("child care assistance") OR TI("child care provision*") OR AB("child care provision*") OR TI("child care subsidy*") OR AB("child care subsidy*") OR TI("child care support") OR AB("child care support") OR TI(chest) OR AB(chest) OR TI("Community Wage") OR AB("Community Wage") OR TI("Domestic Purposes Benefit") OR AB("Domestic Purposes Benefit") OR TI("Employment Tax Deduction") OR AB("Employment Tax Deduction") OR TI("earning disregard*") OR AB("earning disregard*") OR TI(employability) OR AB(employability) OR TI(Employment) OR AB(Employment) OR TI("Employment Program*") OR AB("Employment Program*") OR TI(ETD) OR AB(ETD) OR TI(income) OR AB(income) OR TI("Public assistance") OR AB("Public assistance") OR TI("Social security") OR AB("Social security") OR TI("Social welfare") OR AB("Social welfare") OR TI("family Program*") OR AB("family Program*") OR TI("family Transition Program*") OR AB("family Transition Program*") OR TI("financial benefit*") OR AB("financial benefit*") OR TI("financial incentive*") OR AB("financial incentive*") OR TI("financial sanction*") OR AB("financial sanction*") OR TI("Financial support") OR AB("Financial support") OR TI("Financial support") OR AB("Financial support") OR TI("Financing, Government") OR AB("Financing, Government") OR TI(FTP) OR AB(FTP) OR TI("government intervention*") OR AB("government interven-

tion*) OR TI("Government program*") OR AB("Government program*") OR TI("Government Programs") OR AB("Government Programs") OR TI("health care provision*") OR AB("health care provision*") OR TI("health care subsidy*") OR AB("health care subsidy*") OR TI("health insurance provision*") OR AB("health insurance provision*") OR TI("health insurance subsidy*") OR AB("health insurance subsidy*") OR TI("Hilfe zum Arbeit") OR AB("Hilfe zum Arbeit") OR TI("Hilfe zum Lebensunterhalt") OR AB("Hilfe zum Lebensunterhalt") OR TI("human capital development") OR AB("human capital development") OR TI("income benefit*") OR AB("income benefit*") OR TI("income incentive*") OR AB("income incentive*") OR TI("income supplement*") OR AB("income supplement*") OR TI("Income support") OR AB("Income support") OR TI("Individual Re-integration Agreement") OR AB("Individual Re-integration Agreement") OR TI(IRO) OR AB(IRO) OR TI(Job) OR AB(Job) OR TI(Jobbskatteavdraget) OR AB(Jobbskatteavdraget) OR TI(Jobless*) OR 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Limits: Peer reviewed

11. International Bibliography of the Social Sciences (IBSS) (ProQuest) 16.4.16

(SU(income) OR SU("agricultural income") OR SU("disposable income") OR SU("family income") OR SU("farm income") OR SU("farmers income") OR SU("household income") OR SU("income elasticity") OR SU("industrial income") OR SU("low income") OR SU("minimum income") OR SU("guaranteed minimum income") OR SU("national income") OR SU("public revenue") OR SU("public property revenue") OR SU("wages national income ratio") OR SU("per capita income") OR SU("permanent income") OR SU("real income") OR SU("tariff revenues") OR SU("tax revenue") OR SU("social welfare") OR SU("community care") OR SU("social security") OR SU("family allowances") OR SU("health insurance") OR SU("housing allowances") OR SU("maternity benefits") OR SU("means testing") OR SU("redistributive social security") OR SU("social security financing") OR SU("social security funds") OR SU("social services") OR SU("social support") OR SU("benefit plans") OR SU("disability benefit") OR SU("disabled rehabilitation") OR SU("social 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strategy* “) or AB(“ work first strategy* “) or TI(“ Work for your dole “) or AB(“ Work for your dole “) or TI(work*) Or AB(work*) Or TI(“ Working For Families “) or AB(“ Working For Families “) or TI(“ tax credit* “) or AB(“ tax credit* “) AND (SU(“unmarried mothers“) OR TI(“single parent*“) OR AB(“single parent*“) OR TI(“unmarried father*“) OR AB(“unmarried father*“) OR TI(“never married father*“) OR AB(“never married father*“) OR TI(“never married mother*“) OR AB(“never married mother*“) OR TI(“never married parent*“) OR AB(“never married parent*“) OR TI(“separated mother*“) OR AB(“separated mother*“) OR TI(“separated father*“) OR AB(“separated father*“) OR TI(“Single-parent-family“) OR AB(“Single-parent-family“) OR TI(“fatherless family*“) OR AB(“fatherless family*“) OR TI(“fragile family*“) OR AB(“fragile family*“) OR TI(“lone father*“) OR AB(“lone father*“) OR TI(“Lone mother*“) OR AB(“Lone mother*“) OR TI(“motherless family*“) OR AB(“motherless family*“) OR TI(“One parent*“) OR AB(“One parent*“) OR TI(“single father*“) OR AB(“single father*“) OR TI(“Single mother*“) OR AB(“Single mother*“) OR TI(“Single-parent*“) OR AB(“Single-parent*“) OR TI(“sole father*“) OR AB(“sole father*“) OR TI(“sole mother*“) OR AB(“sole mother*“) OR TI(“Sole parent*“) OR AB(“Sole parent*“) OR TI(“sole registrant*“) OR AB(“sole registrant*“) OR TI(“unmarried father*“) OR AB(“unmarried father*“) OR TI(“unmarried mother*“) OR AB(“unmarried mother*“) OR TI(“unwed father*“) OR AB(“unwed father*“) OR TI(“Unwed Mother* “) or AB(“ Unwed Mother* “) AND (TI(“quasi-random*“) OR TI(“randomized controlled trial“) OR TI(“controlled clinical trial“) OR AB(“quasi-random*“) OR AB(“randomized controlled trial“) OR AB(“controlled clinical trial“) OR TI(“clinical trial“) OR TI(trial) OR TI(random*) OR AB(“clinical trial“) OR AB(trial) OR AB(random*)

Limits: Peer reviewed

12. Social Services Abstracts (Proquest) 16.4.16

(SU(“single fathers“) OR SU(“single mothers“) OR TI(“single parent*“) OR AB(“single parent*“) OR TI(“unmarried father*“) OR AB(“unmarried father*“) OR TI(“never married father*“) OR AB(“never married father*“) OR TI(“never married mother*“) OR AB(“never married mother*“) OR TI(“never married parent*“) OR AB(“never married parent*“) OR TI(“separated mother*“) OR AB(“separated mother*“) OR TI(“separated father*“) OR AB(“separated father*“) OR TI(“Single-parent-family“) OR AB(“Single-parent-family“) OR TI(“fatherless family*“) OR AB(“fatherless family*“) OR TI(“fragile family*“) OR AB(“fragile family*“) OR TI(“lone father*“) OR AB(“lone father*“) OR TI(“Lone mother*“) OR AB(“Lone mother*“) OR TI(“motherless family*“) OR AB(“motherless family*“) OR TI(“One parent*“) OR AB(“One parent*“) OR TI(“single father*“) OR AB(“single father*“) OR TI(“Single mother*“) OR AB(“Single mother*“) OR TI(“Single-parent*“) OR AB(“Single-parent*“) OR TI(“sole father*“) OR AB(“sole father*“) OR TI(“sole mother*“) OR AB(“sole mother*“) OR TI(“Sole parent*“) OR AB(“Sole parent*“) OR TI(“sole registrant*“) OR AB(“sole registrant*“) OR TI(“unmarried father*“) OR AB(“unmarried father*“) OR TI(“unmarried mother*“) OR AB(“unmarried mother*“) OR TI(“unwed father*“) OR AB(“unwed father*“) OR TI(“Unwed Mother*“) OR AB(“Unwed Mother*“) AND (SU(income) OR SU(profits) OR SU(“social security“) OR SU(“social welfare“) or TI(“ Public assistance “) or AB(“ Public assistance “) OR TI(“ Canada Health AND Social Transfer “) OR AB(“ Canada Health AND Social Transfer “) OR TI(“ Personal Responsibility AND Work Opportunity Reconciliation Act “) OR AB(“ Personal Responsibility AND Work Opportunity Reconciliation Act “) OR TI(“ Active labor market police* “) OR AB(“ Active labor market police* “) OR TI(“ Active labor market program* “) OR AB(“ Active labor market program* “) OR TI(ADFC) OR AB(ADFC) OR TI(“ Agenda 2010 “) OR AB(“ Agenda 2010 “) OR TI(“ Aid to families with Dependent Children “) OR AB(“ Aid to families with Dependent Children “) OR TI(“ Allocation Parent sole) OR AB(“ Allocation Parent sole) OR TI(ALMP) OR AB(ALMP) OR TI(“ America Works “) OR AB(“ America Works “) OR TI(API) OR AB(API) OR TI(“ Back-to-work “) OR AB(“ Back-to-work “) OR TI(“ cash benefit* “) OR AB(“ cash benefit* “) OR TI(“ cash incentive* “) OR AB(“ cash incentive* “) OR TI(“ child care assistance “) OR AB(“ child care assistance “) OR TI(“ child care provision* “) OR AB(“ child care provision* “) OR TI(“ child care subsidy* “) OR AB(“ child care subsidy* “) OR TI(“ child care support “) OR AB(“ child care support “) OR TI(chest) OR AB(chest) OR TI(“ Community Wage “) OR AB(“ Community Wage “) OR TI(“ Domestic Purposes Benefit “) OR AB(“ Domestic Purposes Benefit “) OR TI(“ Employment Tax Deduction “) OR AB(“ Employment Tax Deduction “) OR TI(“ earning disregard* “) OR AB(“ earning disregard* “) OR TI(employability) OR AB(employability) OR TI(Employment) OR AB(Employment) OR TI(“ Employment Program* “) OR AB(“ Employment Program* “) OR TI(ETD) OR AB(ETD) OR TI(income) OR AB(income) OR TI(“ Public assistance “) OR AB(“ Public assistance “) OR TI(“ Social security “) OR AB(“ Social security “) OR TI(“ Social welfare “) OR AB(“ Social welfare “) OR TI(“ family Program* “) OR AB(“ family Program* “) OR TI(“ family Transition Program* “) OR AB(“ family Transition Program* “) OR TI(“ financial benefit* “) OR AB(“ financial benefit* “) OR TI(“ financial incentive* “) OR AB(“ financial incentive* “) OR TI(“ financial sanction* “) OR AB(“ financial sanction* “) OR TI(“ Financial support “) OR AB(“ Financial support “) OR TI(“ Financial support “) OR AB(“ Financial support “) OR TI(“ Financing, Government “) OR AB(“ Financing, Government “) OR TI(FTP) OR AB(FTP) OR TI(“ government intervention* “) OR AB(“ government intervention* “) OR TI(“ Government program* “) OR AB(“ Government program* “) OR TI(“ Government Programs “) OR AB(“ Government Programs “) OR TI(“ health care provision* “) OR AB(“ health care provision* “) OR TI(“ health care subsidy* “) OR AB(“ health care subsidy* “) OR TI(“ health insurance provision* “) OR AB(“ health insurance provision* “) OR TI(“ health insurance subsidy* “) OR AB(“ health insurance subsidy* “) OR TI(“ Hilfe zum Arbeit “) OR AB(“ Hilfe zum Arbeit “) OR TI(“ Hilfe zum Lebensunterhalt “) OR AB(“ Hilfe zum Lebensunterhalt “) OR TI(“ human capital development “) OR AB(“ human capital

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Limits Peer reviewed

13. Sociological Abstracts (Proquest) 16.4.16

(SU(“single fathers”) OR SU(“single mothers”) OR SU(“single parent family”) OR TI(“single parent*”) OR (“single parent*”) OR TI(“unmarried father*”) OR AB(“unmarried father*”) OR TI(“never married father*”) OR AB(“never married father*”) OR TI(“never married mother*”) OR AB(“never married mother*”) OR TI(“never married parent*”) OR AB(“never married parent*”) OR TI(“separated mother*”) OR AB(“separated mother*”) OR TI(“separated father*”) OR AB(“separated father*”) OR TI(“Single-parent-family”) OR AB(“Single-parent-family”) OR TI(“fatherless family*”) OR AB(“fatherless family*”) OR TI(“fragile family*”) OR AB(“fragile family*”) OR TI(“lone father*”) OR AB(“lone father*”) OR TI(“Lone mother*”) OR AB(“Lone mother*”) OR TI(“motherless family*”) OR AB(“motherless family*”) OR TI(“One parent*”) OR AB(“One parent*”) OR TI(“single father*”) OR AB(“single father*”) OR TI(“Single mother*”) OR AB(“Single mother*”) OR TI(“Single-parent*”) OR AB(“Single-parent*”) OR TI(“sole father*”) OR AB(“sole father*”) OR TI(“sole mother*”) OR AB(“sole mother*”) OR TI(“Sole parent*”) OR AB(“Sole parent*”) OR TI(“sole registrant*”) OR AB(“sole registrant*”) OR TI(“unmarried father*”) OR AB(“unmarried father*”) OR TI(“unmarried mother*”) OR AB(“unmarried mother*”) OR TI(“unwed father*”) OR AB(“unwed father*”) OR TI(“Unwed Mother*”) OR AB(“Unwed Mother*”) AND (SU(“income”) OR SU(“profits”) OR SU(“social security”) OR SU(“social welfare”) OR TI(“Public assistance”) OR AB(“Public assistance”) OR TI(“Canada Health and Social Transfer”) OR AB(“Canada Health and Social Transfer”) OR TI(“Personal Responsibility and Work Opportunity Reconciliation Act”) OR AB(“Personal Responsibility and Work Opportunity Reconciliation Act”) OR TI(“Active labo:r market polic*”) OR AB(“Active labo:r market polic*”) OR TI(“Active labo:r market program*”) OR AB(“Active labo:r market program*”) OR TI(ADFC) OR AB(ADFC) OR TI(“Agenda 2010”) OR AB(“Agenda 2010”) OR TI(“Aid to Families with Dependent Children”) OR AB(“Aid to Families with Dependent Children”) OR TI(“Allocation Parent Isole”) OR AB(“Allocation Parent Isole”) OR TI(ALMP) OR AB(ALMP) OR TI(“America Works”) OR AB(“America Works”) OR TI(API) OR AB(API) OR TI(“Back-to-work”) OR AB(“Back-to-work”) OR TI(“cash benefit*”) OR AB(“cash benefit*”) OR TI(“cash incentive*”) OR AB(“cash incentive*”) OR TI(“child care assistance”) OR AB(“child care assistance”) OR TI(“child care provision*”) OR AB(“child care provision*”) OR TI(“child care subsidy*”) OR AB(“child care subsidy*”) OR TI(“child care support”) OR AB(“child care support”) OR TI(chest) OR AB(chest) OR TI(“Community Wage”) OR AB(“Community Wage”) OR TI(“Domestic Purposes Benefit”) OR AB(“Domestic Purposes Benefit”) OR TI(“Employment Tax Deduction”) OR AB(“Employment Tax Deduction”) OR TI(“earning disregard*”) OR AB(“earning disregard*”) OR TI(employability) OR AB(employability) OR TI(Employment) OR AB(Employment) OR TI(“Employment Program*”) OR AB(“Employment Program*”) OR TI(ETD) OR AB(ETD) OR TI(income) OR AB(income) OR TI(“Public assistance”) OR AB(“Public assistance”) OR TI(“Social security”) OR AB(“Social security”) OR TI(“Social welfare”) OR AB(“Social welfare”) OR TI(“family Program*”) OR AB(“family Program*”) OR

TI("family Transition Program*") OR AB("family Transition Program*") OR TI("financial benefit*") OR AB("financial benefit*") OR TI("financial incentive*") OR AB("financial incentive*") OR TI("financial sanction*") OR AB("financial sanction*") OR TI("Financial support") OR AB("Financial support") OR TI("Financial support") OR AB("Financial support") OR TI("Financing, Government") OR AB("Financing, Government") OR TI(FTP) OR AB(FTP) OR TI("government intervention*") OR AB("government intervention*") OR TI("Government program*") OR AB("Government program*") OR TI("Government Programs") OR AB("Government Programs") OR TI("health care provision*") OR AB("health care provision*") OR TI("health care subsidy*") OR AB("health care subsidy*") OR TI("health insurance provision*") OR AB("health insurance provision*") OR TI("health insurance subsidy*") OR AB("health insurance subsidy*") OR TI("Hilfe zum Arbeit") OR AB("Hilfe zum Arbeit") OR TI("Hilfe zum Lebensunterhalt") OR AB("Hilfe zum Lebensunterhalt") OR TI("human capital development") OR AB("human capital development") OR TI("income benefit*") OR AB("income benefit*") OR TI("income incentive*") OR AB("income incentive*") OR TI("income supplement*") OR AB("income supplement*") OR TI("Income support") OR AB("Income support") OR TI("Individual Re-integration Agreement") OR AB("Individual Re-integration Agreement") OR TI(IRO) OR AB(IRO) OR TI(Job) OR AB(Job) OR TI(Jobbskatteavdraget) OR AB(Jobbskatteavdraget) OR TI(Jobless*) OR AB(Jobless*) OR TI("labo:r force attachment*") OR AB("labo:r force attachment*") OR TI("labo:r force participation") OR AB("labo:r force participation") OR TI("Labo:r market activation") OR AB("Labo:r market activation") OR TI("mandatory employment") OR AB("mandatory employment") OR TI(MFIP) OR AB(MFIP) OR TI("Minnesota family Investment Program") OR AB("Minnesota family Investment Program") OR TI("monetary benefit*") OR AB("monetary benefit*") OR TI("monetary incentive*") OR AB("monetary incentive*") OR TI("monetary support") OR AB("monetary support") OR TI("childcare allowance*") OR AB("childcare allowance*") OR TI("child care allowance*") OR AB("child care allowance*") OR AB("National Evaluation of Welfare-to work strategies") OR AB("National Evaluation of Welfare-to work strategies") OR TI(NDLP) OR AB(NDLP) OR TI("New Deal for Lone Parents") OR AB("New Deal for Lone Parents") OR TI("New Hope Project") OR AB("New Hope Project") OR TI("Newstart allowance") OR AB("Newstart allowance") OR TI(news) OR AB(news) OR TI("Ontario Works") OR AB("Ontario Works") OR TI(Poverty) OR AB(Poverty) OR TI(PRWORA) OR AB(PRWORA) OR TI("public welfare reform*") OR AB("public welfare reform*") OR TI(Retrain*) OR TI(restrain*) OR AB(Retrain*) OR AB(restrain*) OR TI(RMI) OR AB(RMI) OR TI(sanctions) OR AB(sanctions) OR TI("Self-Sufficiency Project") OR AB("Self-Sufficiency Project") OR TI("Revenu Minimum d'Insertion") OR AB("Revenu Minimum d'Insertion") OR TI("Social assistance") OR AB("Social assistance") OR TI(SSP) OR AB(SSP) OR TI(TANF) OR AB(TANF) OR TI("Temporary Assistance for Needy Families ") OR AB("Temporary Assistance for Needy Families ") OR TI("time limit*") OR AB("time limit*") OR TI(Training) OR AB(Training) OR TI(Unemployment) OR AB(Unemployment) OR TI(Vocation*) OR AB(Vocation*) OR TI(Welfare) OR AB(Welfare) OR TI("work first strategy*") OR AB("work first strategy*") OR TI("Work for your dole") OR AB("Work for your dole") OR TI(work*) OR AB(work*) OR TI("Working For Families ") OR AB("Working For Families ") OR TI("tax credit*") OR AB("tax credit*")) AND (TI("quasi-random*") OR TI("randomi?ed controlled trial") OR TI("controlled clinical trial") OR AB("quasi-random*") OR AB("randomi?ed controlled trial") OR AB("controlled clinical trial") OR TI("clinical trial") OR TI("trial") OR TI("random*") OR AB("clinical trial") OR AB(trial) OR AB(random*))

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14. Campbell Library

Parent* OR welfare*

15. NHS Economic Evaluation Database (NHS EED)

(parent*) OR (welfare*)

16. Turning Research Into Practice (TRIP);

"one parent* or "lone Parent*" or "single parent*" or "single mother*") and welfare

17. Open Grey

"one parent" and work*

18. Planex

("one parent families" or "lone parent" or "single parent*" or "single mother*") and (employment or welfare*)

Appendix 3. Websites searched

Institution/Project	References found	Studies identified for detailed screening
Abt Associates Inc.	245	1
Administration for Children and Families Office of Planning, Research & Evaluation	226	13
Australian Government Employment and Workplace Relations	NA	0
Australian Institute of Family Studies	NA	0
British Library- welfare reform on the web	118	3
Brookings Institution	50	0
Canadian Social Research Links	152	0
Cato Institute	NA	0
Center for Quality Assurance and Policy Studies	NA	0
Center for Social Services Research	2	0
Center on Budget and Policy Priorities	2432	0
Centre for Economic and Social Inclusion	NA	0
Centre for Market and Public Organisation (Bristol)	NA	0
Chapin Hall (Chicago)	40	0
Department for Work and Pensions	223	7
Department of Social and Family Affairs, Ireland	NA	0
Department of Social and Policy Sciences, Bath	NA	0
Does 'Work for the dole' work?	NA	0
Employment Research Institute	NA	0
Gerald R. Ford School of Public Policy	90	5

(Continued)

Government of Western Australia, Department of Health	NA	0
Heritage Foundation	NA	0
Human Capability and Resilience research project	NA	0
Human Resources and Skills Development Canada	NA	0
Institute for Fiscal Studies	NA	0
Institute for Policy Research	215	7
Institute for Public Policy Research	96	0
Institute for Research on Poverty	732	55
Institute of Economic Affairs	26	0
Joseph Rowntree Foundation	NA	0
Manhattan Institute	NA	0
Manpower Demonstration Research Corporation/MDRC	174	56
Maryland Institute for Policy Analysis and Research	NA	0
Mathematica Policy Research Inc.	103	1
Ministry of Social Development, New Zealand	NA	0
National Bureau of Economic Research	31	12
National Centre for Social Research	NA	0
National Evaluation of Welfare to Work strategies	27	22
National Poverty Center (Michigan)	73	15
New South Wales Office for Women	NA	1
Norwegian Government	NA	0

(Continued)

One Family	NA	0
Pioneer Institute	NA	0
Policy Library	NA	0
Policy Studies Institute	NA	0
RAND Corporation	523	8
Ray Marshall Centre	104	2
Research Connections	823	19
Robert Wood Johnson Foundation	29	0
Social Policy Digest	NA	0
Social Research and Demonstration Corporation, Canada	90	8
Statistics Norway	47	0
The Centre for Analysis of Social Exclusion	NA	0
The Institute for Employment Studies	56	0
The Institute for Labour Market Policy Evaluation, Sweden	102	0
The Research Forum	54	51
The Urban Institute	1219	6
US Government Accountability Office	580	3
WE Upjohn Institute	35	0
Total	8717 E	275

Websites with search interfaces or searchable database were searched using terms such as 'lone parent' 'lone parent welfare' 'welfare reform' or 'welfare health'. Otherwise the relevant publications topic in a website was screened. Where this was possible, the number of initial 'hits' is listed. NA = no searchable interface. Total is an estimate due to websites without searchable interfaces.

Appendix 4. Risk of bias for studies with a separate control group

Was the allocation sequence adequately generated?

Score "Yes" if a random component in the sequence generation process is described (e.g. referring to a random number table). Score "No" when a nonrandom method is used (e.g. performed by date of admission). Controlled clinical trials (CCTs) and controlled before-and-after studies (CBAs) should be scored "No". Score "Unclear" if not specified in the paper.

Was the allocation adequately concealed?

Score "Yes" if the unit of allocation was by institution, team or professional and allocation was performed on all units at the start of the study; or if the unit of allocation was by patient or episode of care and there was some form of centralised randomisation scheme, an on-site computer system or sealed opaque envelopes were used. CBAs should be scored "No". Score "unclear" if not specified in the paper.

Were baseline outcome measurements similar?

Score "Yes" if performance or patient outcomes were measured prior to the intervention, and no important differences were present across study groups. In RCTs, score "Yes" if imbalanced but appropriate adjusted analysis was performed (e.g. analysis of covariance). Score "No" if important differences were present and not adjusted for in analysis. If RCTs have no baseline measure of outcome, score "Unclear".

Were baseline characteristics similar?

Score "Yes" if baseline characteristics of the study and control providers are reported and similar. Score "Unclear" if it is not clear in the paper (e.g. characteristics are mentioned in text but no data were presented). Score "No" if there is no report of characteristics in text or tables or if there are differences between control and intervention providers. Note that in some cases imbalance in patient characteristics may be due to recruitment bias whereby the provider was responsible for recruiting patients into the trial.

Were incomplete outcome data adequately addressed?

Score "Yes" if missing outcome measures were unlikely to bias the results (e.g. the proportion of missing data was similar in the intervention and control groups or the proportion of missing data was less than the effect size i.e. unlikely to overturn the study result). Score "No" if missing outcome data was likely to bias the results. Score "Unclear" if not specified in the paper (do not assume 100% follow up unless stated explicitly).

Was knowledge of the allocated interventions adequately prevented during the study?

Score "Yes" if the authors state explicitly that the primary outcome variables were assessed blindly, or the outcomes are objective, e.g. length of hospital stay. Primary outcomes are those variables that correspond to the primary hypothesis or question as defined by the authors. Score "No" if the outcomes were not assessed blindly. Score "unclear" if not specified in the paper.

Was the study adequately protected against contamination?

Score "Yes" if allocation was by community, institution or practice and it is unlikely that the control group received the intervention. Score "No" if it is likely that the control group received the intervention (e.g. if patients rather than professionals were randomised). Score "unclear" if professionals were allocated within a clinic or practice and it is possible that communication between intervention and control professionals could have occurred (e.g. physicians within practices were allocated to intervention or control).

Was the study free from selective outcome reporting?

Score "Yes" if there is no evidence that outcomes were selectively reported (e.g. all relevant outcomes in the methods section are reported in the results section). Score "No" if some important outcomes are subsequently omitted from the results. Score "unclear" if not specified in the paper.

Was the study free from other risks of bias?

Score "Yes" if there is no evidence of other risk of biases. If some primary outcomes were imbalanced at baseline, assessed blindly or affected by missing data and others were not, each primary outcome can be scored separately. If "Unclear" or "No", but there is sufficient data in the paper to do an adjusted analysis (e.g. baseline adjustment analysis or intention to treat analysis) the criteria should be rescored to "Yes".

Appendix 5. All reported outcomes by study

1. Maternal mental health				
Study	CES-D mean	CES-D % at risk	CIDI % at risk	Self-report
Timepoint 1				
CJF GUP 2000			threshold NR	
CJF Yale 2001		≥16/60		
New Hope 1999	x			
NEWWS 2001	x			
Ontario 2001			threshold NR	
Timepoint 2				
CJF 2002	x			
CJF GUP 2000	x			
FTP 2000	x			
California GAIN 1994				x
MFIP 2000	x	≥23/60		
Ontario 2001				
SSP Recipients 2002	x			
Timepoint 3				

(Continued)

IFIP 2002		≥23/60		
IWRE 2002	x			
New Hope 1999	x			
NEWWS 2001				
SSP Applicants 2003	x			
SSP Recipients 2002	x			
UK ERA 2011				x

2. Maternal physical health

Study	In poor health (%)	In good health (%)	Physical health scale
Timepoint 1			
CJF GUP 2000			
CJF Yale 2001	x		
New Hope 1999			
NEWWS 2001			
Ontario 2001			
Timepoint 2			
CJF 2002			
CJF GUP 2000			
FTP 2000			
California GAIN 1994		x	
MFIP 2000			
Ontario 2001		x	
SSP Recipients 2002			

(Continued)

Timepoint 3				
IFIP 2002				
IWRE 2002				
New Hope 1999			x	
NEWSWS 2001				
SSP Applicants 2003				
SSP Recipients 2002				
UK ERA 2011		x		

3. Child mental health

	Behavior problems total score (mean)	Behavior problems (% with problems)	Number of behavior problems	% at risk for depression
<i>Timepoint 1</i>				
CJF GUP 2000				
CJF Yale 2001		x		
New Hope 1999				
NEWSWS 2001	x			
Ontario 2001			x	
<i>Timepoint 2</i>				
CJF 2002	x			
CJF GUP 2000				
FTP 2000	x			
California GAIN 1994				
MFIP 2000	x			
Ontario 2001				

(Continued)

SSP Recipients 2002					x
<i>Timepoint 3</i>					
IFIP 2002	x				
IWRE 2002	x				
New Hope 1999					
NEWWS 2001	x				
SSP Applicants 2003	x				
SSP Recipients 2002	x				
UK ERA 2011					

4. Child physical health

	Mother reported health (mean score)	Good/excellent or fair/poor health (%)
<i>Timepoint 1</i>		
CJF GUP 2000		
CJF Yale 2001		
New Hope 1999		
NEWWS 2001	x	
Ontario 2001		
<i>Timepoint 2</i>		
CJF 2002	x	
CJF GUP 2000		
FTP 2000	x	
California GAIN 1994		
MFIP 2000		x

(Continued)

Ontario 2001			
SSP Recipients 2002	x		
<i>Timepoint 3</i>			
IFIP 2002			x
IWRE 2002	x		
New Hope 1999	x		
NEWS 2001	x		
SSP Recipients 2002	x		
SSP Applicants 2003	x		
UK ERA 2011			

5. Employment status

	Currently employed (%)	Currently employed FT (%)	Currently employed PT (%)	Ever employed since RA/in year of study (%)	Ever employed FT since RA/in year of study (%)	Ever employed PT since RA/in year of survey (%)
<i>Timepoint 1</i>						
CJF GUP 2000	x					
CJF Yale 2001	x			x		
New Hope 1999				x		
NEWS 2001	x			x		
Ontario 2001						
<i>Timepoint 2</i>						
CJF 2002				x		
CJF GUP 2000						
FTP 2000				x		

(Continued)

California GAIN 1994				x	x	x
MFIP 2000				x	x	x
Ontario 2001						
SSP Recipients 2002		x	x		x	x
<i>Timepoint 3</i>						
IFIP 2002	x	x	x			
IWRE 2002	x					
New Hope 1999		x		x		
NEWSWS 2001	x	x	x	x		
SSP Applicants 2003	x	x	x			
SSP Recipients 2002	x	x	x			
UK ERA 2011	x	x	x	x		

6. Income

	Total income (USD/CAD)	Earnings (USD/CAD/GBP)
<i>Timepoint 1</i>		
CJF GUP 2000		
CJF Yale 2001		
New Hope 1999	x	x
NEWSWS 2001	x	x
Ontario 2001		
<i>Timepoint 2</i>		

(Continued)

CJF 2002	x	x
CJF GUP 2000		
FTP 2000	x	x
California GAIN 1994		x
MFIP 2000	x	x
Ontario 2001		
SSP Recipients 2002	x	x
<i>Timepoint 3</i>		
IFIP 2002	x	x
IWRE 2002	x	x
New Hope 1999	x	x
NEWWS 2001	x	x
SSP Applicants 2003	x	x
SSP Recipients 2002	x	x
UK ERA 2011		x

7. Welfare Receipt

	Total benefit received (USD/CAD/GBP)	Receiving benefits currently or in year of study (%)
<i>Timepoint 1</i>		
CJF GUP 2000		
CJF Yale 2001		
New Hope 1999	x	x
NEWWS 2001		x
Ontario 2001		x

(Continued)

<i>Timepoint 2</i>		
CJF 2002	x	
CJF GUP 2000		
FTP 2000	x	
California GAIN 1994		
MFIP 2000	x	
Ontario 2001		x
SSP Recipients 2002	x	
<i>Timepoint 3</i>		
IFIP 2002	x	x
IWRE 2002	x	x
New Hope 1999	x	x
NEWWS 2001	x	
SSP Applicants 2003	x	x
SSP Recipients 2002	x	x
UK ERA 2011	x	x

8. Health insurance			
	Adult Health Insurance	Child Health Insurance	Family Health Insurance
<i>Timepoint 1</i>			
CJF GUP 2000	x		
CJF Yale 2001	x		
New Hope 1999	x		
NEWWS 2001	x	x	

(Continued)

Ontario 2001			
<i>Timepoint 2</i>			
CJF 2002	x		
CJF GUP 2000			
FTP 2000			
California GAIN 1994	x		
MFIP 2000		x	
Ontario 2001			
SSP Recipients 2002			
<i>Timepoint 3</i>			
IFIP 2002			x
IWRE 2002			
New Hope 1999	x	x	
NEWSWS 2001			x
SSP Applicants 2003			
SSP Recipients 2002			
UK ERA 2011			

Appendix 6. MDRC sequence generation procedure

Provided by Cynthia Miller, MDRC 16/9/11

”Like comparable research organizations, MDRC’s random assignment process is regulated by a control file consisting of the sequence of assignment values. Simple random assignment is not generally used at MDRC because social programs often have quotas related to how many individuals can be served in a given site during a given time period. Therefore, MDRC goes to great lengths to make control files as unpredictable as possible while at the same time avoiding localized ‘bad draws’ that could adversely affect program operations. MDRC’s random assignment process is regulated by a “sequence” file consisting of the ordering of assignment values. Each project gets its own sequence file - they are never reused. The sequence files are constructed by defining blocks of assignments, each block made up of different sizes configured to approximate the intended random assignment ratio. The size of the blocks generally average over 20 assignments; the assignments within each block are randomized using an available random number generator with a uniform distribution. We generally use 9 different block sizes, and the order of block sizes is also randomized, with each block size occurring exactly once within a ‘superblock’ of the 9 block sizes. Each superblock is calculated to generate precisely the targeted random assignment ratio. Within a superblock a given block may not necessarily exactly match the target random assignment ratio, but any deviance from

the target in one block will be compensated for in another block. This is especially necessary when an odd-sized random assignment ratio is specified (e.g., 55:45).

Each time a control file is generated, we produce many more versions than we need. For each version we calculate an entropy measure that reflects the distribution among configurations of possible subpatterns within the control file. We use this entropy measure to gauge the extent to which a given sequence file could reveal information from the pattern of past assignments to help anticipate future assignments. For the research study we will choose a sequence file from among the ones generated that contain the highest overall entropy; that is, they tend to have a more uniform distribution of distinct subpatterns. The higher the entropy the more likely it is that subpatterns are equally likely and therefore are unpredictable. For example, within the constraints of the overall average block size, maximizing the entropy of the sequence would mean that a subpatterns like “ECECEC”, “EEEEEE”, “CECCCE” and “EECCCC” would all tend to be equally likely within the overall sequence file.“

WHAT'S NEW

Last assessed as up-to-date: 16 April 2016.

Date	Event	Description
14 February 2018	New citation required but conclusions have not changed	Republished to allow open access. No changes to the July 2017 published text

HISTORY

Protocol first published: Issue 5, 2012

Review first published: Issue 8, 2017

Date	Event	Description
12 January 2017	Feedback has been incorporated	Responses to second external reviewer's comments incorporated
8 November 2016	Feedback has been incorporated	Responses to first external reviewer's comments incorporated
3 August 2016	Feedback has been incorporated	Internal reviewers' amendments following responses to first round of comments have been incorporated
24 May 2016	Feedback has been incorporated	Responses to internal reviewers' comments incorporated.

CONTRIBUTIONS OF AUTHORS

Conceived study: MG, HT, CB, LB.

Secured funding: MG, HT, CB, LB.

Drafted the protocol: MG, KB, HT, LB, CB.

Developed and implemented the search strategy: CF, MG.

Selected studies: MG, KB, VL.

Extracted and interpreted data from studies: MG, KB, MJM, VL, SPM.

Assessed risk of bias: MG, VL.

Assessed quality (GRADE): MG, HT.

Entered data into RevMan: MG, MJM, SPM.

Carried out the meta-analysis: MG.

Interpreted the analysis: MG, HT.

Draft the final review: MG.

Methodological advice: HT, LB, CB.

Comments on review: HT, LB, CB, KB, MJM, VL, SPM.

Disagreement resolution: CB, HT.

DECLARATIONS OF INTEREST

MG: none known.

HT: none known.

KB: none known.

VL: none known.

MJM: none known.

SPM: none known.

CF: none known.

CB: none known.

LB: none known.

SOURCES OF SUPPORT

Internal sources

- Chief Scientist Office, Scottish Government Health and Social Care Directorates, UK.
Core funding to Evaluating the Health Effects of Social Interventions Programme, MC·UU·12017/4 (to June 2015)
- UK Medical Research Council/Chief Scientist Office, UK.
Core funding to Informing Healthy Public Policy Programme, MC·UU·12017-15 (from June 2015)

External sources

- Chief Scientist Office, Scottish Government Health and Social Care Directorates, UK.
Grant code CZG/2/422: Grant funding to £50,000

DIFFERENCES BETWEEN PROTOCOL AND REVIEW

The original title of the review was "Welfare to work interventions and their effects on health and well-being of lone parents and their children". This title was developed at an early stage of the review, when the intention was to include a wide range of psychosocial outcomes. The range of outcomes was subsequently restricted to measures of mental and physical health. We have therefore changed the title to "Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children". We have also amended the primary objective to reflect this change.

The review has been focused on high-income countries since the outset, but this was not originally reflected in the objectives. We have amended the primary objective to state that the focus is on interventions conducted in high-income countries.

We excluded studies with fewer than 60% lone parents.

We did not develop a more detailed typology of interventions because we found that in practice, interventions of different types did not necessarily differ from each other.

We did not calculate or assess welfare dependency, as we deemed that it would not be a useful outcome measure.

The time points used to analyse and present data differ slightly from the intervals stated in the protocol, as having collected data and established the actual distribution of studies and follow-up times, the division of intervals used provided the optimal spread of follow-up times and number of studies within each interval.

The protocol stated that I^2 above 75% would trigger a decision to conduct narrative synthesis. Greater understanding of meta-analysis methods led to the decision to employ a threshold of 60% for post hoc sensitivity analysis investigating intervention characteristics or components as potential explanatory factors where there was an obvious outlier. We chose 60% as it is the upper end of the range defined as moderate in [Higgins 2011a](#).

We did not use sensitivity analysis to investigate decisions made during the review. The decisions specified in the protocol concerned participant characteristics (all studies included employed and couple parents) and level of bias (all studies were at high risk of bias). Sensitivity analysis was used post hoc to investigate the influence of intervention characteristics on effects.

INDEX TERMS

Medical Subject Headings (MeSH)

*Child Health [ethics]; *Health Status; *Maternal Health [ethics]; *Mental Health; Employment [economics; ethics; legislation & jurisprudence; *psychology]; Income; Insurance, Health [statistics & numerical data]; Poverty; Randomized Controlled Trials as Topic; Single Parent [*psychology]; Social Welfare [ethics; legislation & jurisprudence; *psychology]

MeSH check words

Adolescent; Adult; Child; Child, Preschool; Humans; Infant