Inequalities in Children Looked After in England: local area studies to inform policy

Thesis submitted in accordance with the requirements of the University of Liverpool for the degree of Doctor in Philosophy by

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Declaration

This thesis is my own work. The material contained in this thesis has not been presented, nor is currently being presented, wholly or in part, for any other degree or qualification.

Dedication

I dedicate this thesis to Fred Bennett and Cindy Hutchinson. In this, as in all my endeavours, I owe them a great debt of thanks.

Acknowledgements

The work of this thesis was made possible by a studentship from the National Institute for Health Research (NIHR) School for Public Health Research.

I gratefully acknowledge my supervisors. David Taylor-Robinson has been my steadfast guide through the Piranesian halls of academia. I hope always to emulate his kindness and calm. Ben Barr stepped in at a low ebb, and his advice is always of great worth. Sophie Wickham was a friend before she was a supervisor, and as a supervisor has only become a dearer friend to me.

Thank you to the many colleagues at the University of Liverpool who helped me along the way. I am fortunate to have worked with Daniela Schlüter-Mistry, Kate Mason, Katie Fahy, Gabriella Melis, Alex Alexiou, Eric Lai and Paris Lee. I must single out Daniela, who patiently, painstakingly, deftly, taught me to break into a black box of code and unravel the workings of a statistical model. Sincere thanks to Ciara Kierans for thoughtful comments on the qualitative work.

I am grateful to the researchers who welcomed me to their field. Calum Webb's intellectual generosity struck me from the first. From the eve of the first lockdown until today, his support has been more important to me than he knows. Thanks to Kate Morris, who gave astute advice when I needed to hear it. And thank you to Paul Bywaters, whose work forms the bedrock of this thesis.

I offer renewed thanks to the participants of my qualitative study, who gave generously of their time in the midst of a pandemic. I hoped to do justice to their wisdom, and likely fell short. I am also indebted to the care experienced people counted in the child welfare data. Somewhere, in there, are the merest traces of the formidable, alternately fierce and gentle, funny and serious, open and guarded young people, who taught me to be less 'by the book'. I do not forget them, nor my fellow keyworkers who with kindness helped me learn.

And thank you to Anna Head. What would I have done if you hadn't come along.

Abstract

Introduction: Reversing the steep rise in the number Children Looked After by their local authority is a policy priority in England. There is a need for research into the drivers of the rise. Poor socioeconomic conditions are prevalent risk factors for children being taken into care, and austerity policies following the recession have worsened these conditions. Adopting a health inequalities lens, this thesis investigates recent trends in socioeconomic inequalities in care entry and how these inequalities are generated. It assesses the local policy context for action on the drivers of inequalities, with a view to informing policy.

Methods: In this sequential mixed methods research, I use longitudinal modelling approaches to publicly available local area-level data, and qualitative methods, to investigate the mechanisms of inequalities in children entering care between 2004 and 2021. Study 1 uses segmented mixed effects models to investigate trends in socioeconomic inequalities in care entry in England. Using within-between regression models, studies 2 and 3 assess the contribution of cuts to preventative children's services and rising child poverty to trends in care entry. In study 4, I undertake qualitative interviews with policymakers in local authority Children's Services. I use thematic analysis, and a conceptual model of the policy process, to focus attention on the status of the socioeconomic drivers of care entry on the policy agenda. Responding to policymakers' own preoccupations, and using mixed effects models, study 5 assesses the impact of Ofsted inspection on care entry and inequalities.

Results: The steep rise in rates of children entering care in England between 2007 and 2019 was greater in poorer areas of the country, increasing inequalities. The recession could be a contributory cause, but it is not the whole story. Though unemployment was associated with care entry, inequalities increased independently of its effect. Cuts to preventative children's services may have played a part. Between 2011 and 2018, across England, areas that experienced deeper cuts to preventative adolescent services saw a greater increase in rates of 16–17-year-olds entering care the following year. There was no corresponding association between cuts to preventative early years services and rates of 1–4-year-olds entering care. Rising child poverty appears to be a major driver of care entry, with substantive population-level effects. Between 2015 and 2020, across England, local authorities that saw a greater rise in child poverty experienced greater increases in the rate of children entering care. In narratives of changes in Children's Services, however, policymakers' readiness to attribute rising care entry to cuts to preventative services contrasted sharply with a timid assessment of the role of child poverty in driving recent trends. 'More prevention' was the clarion call. But budgetary constraints under present and prolonged austerity, and the weak statutory status of prevention, hindered reinvestment strategies. Policymakers also dwelt on the unintended consequences of Ofsted inspections. Inspections were in fact associated with higher care entry rates, and higher rates for worse judgements. The inspectorate may inadvertently amplify inequalities by promoting increased use of acute intervention – with, in more deprived areas, no corresponding increase in less acute interventions.

Conclusions: Policies to safely reduce the rate of children entering care in England should target the mechanisms of rising socioeconomic inequalities. Reducing children's exposure to poverty, and equitable reinvestment in preventative services, particularly services for adolescents, are

likely to be effective strategies. To achieve these policy goals, policy entrepreneurs might first advocate for better, more respected indicators of prevention spend; offer clearer conceptual language for describing the role of child poverty, this cause of causes; and highlight the vicious circle of disinvestment in prevention – as well as national policymakers' ultimate accountability for this consequence of austerity, and local policymakers' painful consciousness of it. There is also room for engaging in strategic local, intersectoral and international comparisons, spotlighting best practice. An inspectorate engaged with the wider socioeconomic determinants of care entry and service quality might promote these policy goals.

Contents

Tables

Figures

Abbreviations

ACEs	Adverse childhood experiences
CCE	Child criminal exploitation
CI	Confidence Interval
CiLIF	Children in Low Income Families
CIN	Children in Need
CIN rate	Rate of children starting an episode of need in the year
CLA	Children Looked After
CLA rate	Rate of children who started to be looked after in the year
CPP	Child protection plan
CPP rate	Rate of children starting child protection plans in the year
CSE	Child sexual exploitation
IMD	Index of multiple deprivation
LA	Local authority
RII	Relative Index of Inequality
SECs	Socioeconomic conditions
SEND	Special educational needs and disabilities
SII	Slope Index of Inequality

Chapter 1: Introduction

In this opening chapter, I introduce the subject matter of the thesis, inequalities in Children Looked After in England, and its public health relevance. I give a brief overview of the English child protection system, the main statutory interventions of interest and how they relate to children's experiences of harm, and the policy context in England. I summarise the extant literature on socioeconomic inequalities in care, highlighting gaps in the literature, before moving to the aims and objectives of the thesis, and how these will address the identified gaps. I close the chapter with an overview of the structure of the thesis. I present an overarching conceptual framework and explain how each standalone study fits into that framework.

Relevance of the issue

On 31st March 2008, there were fewer than 60,000 Children Looked After in England. That number has increased year on year, and at last count, in 2022, their number exceeded 80,000 (Department for Education, 2022b). Children Looked After endure adversity sufficiently severe for the State to intervene in their upbringing; most are removed from the family home (Emmott et al., 2019).

Out of home care is always intended to be protective, and in a child's best interests. But it can exacerbate harm. Removal into care may be traumatic for children as well as parents (Broadhurst & Mason, 2020; Mitchell & Kuczynski, 2010; Sankaran et al., 2019; Trivedi, 2019). Children's experiences of care vary widely; they are often mixed (Hiller et al., 2021; L. P. Jones, 2015; Miller Dunn et al., 2010). And, whether protective, harmful or both, care does not sufficiently mitigate the impact of childhood adversity: Children Looked After experience worse health and social outcomes, across the life course, relative to their peers who have never experienced intervention. They are more likely to receive only a basic education, experience unemployment, housing instability and homelessness, and earn a low income (Gypen et al., 2017; Sacker et al., 2022; Viner & Taylor, 2005; Xie et al., 2021). They are more likely to misuse substances, to have poor mental health, including a diagnosis of depression, and to have a criminal conviction (Gypen et al., 2017; Viner & Taylor, 2005; Xie et al., 2021). Care experienced adults are more likely to experience physical disability, to have poor self-reported general health, and report a cancer diagnosis (Murray et al., 2020b; Viner & Taylor, 2005; Xie et al., 2021). Up to 42 years after initial care assessment, they have a higher mortality risk – largely attributable to self harm, accidents, and mental and behavioural causes (Murray et al., 2020a). The human costs are considerable, and of long duration. Meanwhile, the financial and opportunity costs to local government and wider

society of ensuring children's safety have risen steeply, even unsustainably (G. Atkins, 2020; Butler, 2022; Local Government Association, 2022), lending new urgency to longstanding calls for a public health, preventative approach to child maltreatment that would identify and address modifiable risk factors (O'Donnell et al., 2008).

Poor socioeconomic conditions are known, highly prevalent risk factors for child maltreatment and subsequent care entry. There are marked socioeconomic inequalities in *who* becomes a Child Looked After in the first place (Bywaters, 2015). Exposing the magnitude of these inequalities in the UK, and borrowing terminology from the field of public health, Bywater et al. coin the term 'child welfare inequity', encompassing children and parents' "unequal chances, experiences, and outcomes of involvement with child welfare services that are systematically associated with structural social dis/advantage and are unjust and avoidable" (Bywaters et al., 2015, p. 100). Child welfare and health inequalities go hand in hand. These inequalities are increasingly well documented. Yet their mechanisms remain obscure. Understanding how child welfare inequalities arise and persist is key to identifying appropriate and equitable interventions to safely reduce care entry. Adopting a public health perspective on the issue, and applying the tools of health inequalities research to child protection systems data, can help unravel these mechanisms.

The English child protection system

In England, the Department for Education is responsible for policy, legislation, and statutory guidance on how the child protection system should work (NSPCC, 2022a). Local authorities have principal responsibility for implementation at a local level. Together with safeguarding partners and other relevant agencies, local authorities (LA) must promote the welfare of children within their boundaries and make arrangements to identify and support children at risk of harm (NSPCC, 2022a).

The English child protection system has been described as series of 'filters and funnels' (Gibbons et al., 1995; Hood, Goldacre, et al., 2016; Hood, Goldacre, Gorin, & Bywaters, 2020). Using this analogy, through the funnel, successive phases of risk assessment and service response determine a child's status (figure 1). At the wide end of the funnel are all referrals. A child is recorded as a 'child in need' (CIN), if deemed to require additional support to achieve a reasonable standard of health and development. A child protection plan (CPP) may be drawn up if, following an investigation, concerns persist as to whether a child is suffering, or likely to suffer, significant harm. Children Looked After (CLA) are at the narrow end of the funnel. These are children whose care has been transferred to the local authority for more than 24 hours. They are typically accommodated in foster or residential children's homes, or other residential settings,

such as schools or secure units. When a child goes on to be adopted or turns 18, they are no longer considered 'looked-after'; if they return home, they may cease to be 'looked-after' (NSPCC, 2022b).

Figure 1. Child protection system 'funnel', and overlap between child welfare statuses.

Note. Deeper orange indicates greater severity of risk. Size and overlaps are not to scale. Counts of children, given to two significant figures, are taken from most recent data returns for the 2021-22 financial year. In rare cases, due to residual safeguarding concerns, a child in care may also be subject to a CPP.

Defining harm

A child is either 'looked after' or they are not. The status is binary, clear-cut. But the status is meant to confer protection from 'significant harm', and the complex harm children experience has long been difficult to define. In England, publicly available data merely record a primary 'category of need', selected from an unintuitive set of hierarchical categories. Adopting these categories, the vast majority of children are in care due to the risk or experience of abuse or neglect (Department for Education, 2022b). Data on categories of abuse initially recorded for children placed on a child protection plan offer further insight into the children's experiences, as filtered through the service lens (Department for Education, 2021b). Neglect is the most common concern, followed by emotional abuse.

There are no consistent, internationally agreed-upon definitions of child abuse or neglect, just as there are no universal standards for child-rearing (Forrester & Harwin, 2000; Korbin, 1980). Yet

guiding definitions have been elaborated (figure 2). 'Child maltreatment' may be considered the broadest term, encompassing "any act of commission or omission by a parent or other caregiver that results in harm, potential for harm, or threat of harm to a child" – including physical abuse, sexual abuse, psychological or emotional abuse, neglect, and intimate partner violence (R. Gilbert et al., 2009, p. 760). Other definitions understand a wider range of potential perpetrators of child commercial, criminal, or sexual exploitation in the context of power relationships beyond the family home (Sethi et al., 2013). Some child maltreatment may be more likely to come to the attention of child welfare services. And although numbers of children in care are on the rise, all types of child maltreatment go underreported (R. Gilbert et al., 2009).

Figure 2. Definitions of child maltreatment, used with permission (R. Gilbert et al., 2009).

	Definition	Comment
Child maltreatment*	Any act of commission or omission by a parent or other caregiver that results in harm, potential for harm, or threat of harm to a child. Harm does not need to be intended	In the USA, 82% of substantiated cases were perpetrated by parents or other caregivers[3]
Physical abuse*	Intentional use of physical force *or implements* against a child that results in, or has the potential to result in, physical injury	Includes hitting, kicking, punching, beating, stabbing, biting, pushing, shoving, throwing, pulling, dragging, shaking, strangling, smothering, burning, scalding, and poisoning. 77% of perpetrators were parents according to US figures for substantiated physical abuse[3]
Sexual abuse*	Any completed or attempted sexual act, sexual contact, or non-contact sexual interaction with a child by a caregiver†	Penetration: between mouth, penis, vulva, or anus of the child and another individual. Contact: intentional touching directly or through clothing of genitalia, buttocks, or breasts (excluding contact required for normal care). Non-contact: exposure to sexual activity, filming, or prostitution. For substantiated cases in the USA in 2006, 26% of perpetrators were parents and 29% a relative other than a parent.[3] Parents form a smaller percentage (3–5%) of perpetrators of self-reported sexual abuse[4]
Psychological (or emotional) abuse*	Intentional behaviour that conveys to a child that he/she is worthless, flawed, unloved, unwanted, endangered, or valued only in meeting another's needs. *In the UK, the definition includes harmful parent–child interactions which are unintentional: "the persistent emotional ill-treatment of a child such as to cause severe and persistent adverse effects on the child's emotional development"*[5]	Can be continual or episodic—eg, triggered by substance misuse. Can include blaming, belittling, degrading, intimidating, terrorising, isolating, or otherwise behaving in a manner that is harmful, potentially harmful, or insensitive to the child's developmental needs, or can potentially damage the child psychologically or emotionally. Witnessing intimate-partner violence can be classified as exposure to psychological abuse. 81% of substantiated cases in the USA were perpetrated by parents[3]
Neglect*	Failure to meet a child's basic physical, emotional, medical/dental, or educational needs; failure to provide adequate nutrition, hygiene, or shelter; or failure to ensure a child's safety	Includes failure to provide adequate food, clothing, or accommodation; not seeking medical attention when needed; allowing a child to miss large amounts of school; and failure to protect a child from violence in the home or neighbourhood or from avoidable hazards. Parents make up 87% of perpetrators of substantiated cases in the USA[3]
Intimate-partner violence	Any incident of threatening behaviour, violence, or abuse (psychological, physical, sexual, financial, or emotional) between adults who are, or have been, intimate partners or family members, irrespective of sex or sexuality	Most frequently the perpetrator is the man in heterosexual couples, but there is growing recognition of violence inflicted by women. One community survey reported unanimous agreement that punching, slapping, or forcing a partner to have sex should be regarding as intimate-partner violence, but there was less consensus about emotional or economic abuse

*Definitions are based on Centers for Disease Control and Prevention report 2008, with modifications in italics.[2] †Includes substitute caregivers in a temporary custodial role (eg, teachers, coaches, clergy, and relatives).

Note. Reprinted from The Lancet, 373, Gilbert, R., Widom, C.S., Browne, K., Fergusson, D., Webb, E., Janson, Child Maltreatment 1: Burden and consequences of child maltreatment in high-income countries, 68–81, Copyright (2009), with permission from Elsevier.

Policy context in England

The steep rise in the number of Children Looked After in England has taken place at a time of rapid policy change. Following the 2008 recession, the UK government implemented austerity, a deficit reduction programme of spending decreases and tax increases (HM Treasury, 2010). Welfare and local government budgets were particularly hard hit (Gray & Barford, 2018). Cuts to welfare benefits disproportionately affected families with children (Tucker, 2017), contributing to the rise in relative child poverty from 2014 (Department for Work and Pensions, 2021b), while cuts to local government budgets disproportionately affected more deprived local authorities

least able to raise revenue from local residents and businesses (Harris et al., 2019). Over time, allocations of funding have become increasingly unmoored from assessments of spending needs (Ogden et al., 2022). At a local level, this has manifested itself in deep cuts to discretionary services. The overall rise in Children's Services spending is attributable to increased spending on Children Looked After (C. J. R. Webb & Bywaters, 2018), however between 2011 and 2019, in real terms, spending on preventative children's services fell by 25% (D. L. Bennett et al., 2021).

In 2018 and 2019, successive Chancellors proclaimed the imminent or effective end of austerity (HM Treasury & Hammond, 2018; HM Treasury & Javid, 2019). However, planned public spending increases did not reverse austerity-era cuts, particularly for hard-hit departments, and cuts to working-age benefits were not at an end (Crawford & Zaranko, 2019; Zaranko, 2018). Substantial central government support for local government in the first year of the COVID-19 crisis tapered off in subsequent years despite high and rising cost pressures on councils, particularly as inflation rose (Ogden et al., 2021). In welfare spending, the additional £20 weekly universal credit uplift, introduced during the first lockdown in March 2020, and which led to a short-term fall in child poverty, was withdrawn in October 2021, as the cost-of-living crisis intensified (Joyce, 2022). In summary, over the past two decades, the socioeconomic conditions in which families live, and services operate, have considerably altered.

Previous research and gaps

There is strong international evidence, both at household and local area-level, spanning decades, of an association between poor socioeconomic conditions and a range of outcomes, from children's experiences of adversity, including abuse and neglect, to coming into contact with child protection systems and entering care (Bywaters, Bunting, et al., 2016; Bywaters et al., 2022; Pelton, 2015). I am participating in a systematic review of the relationship between disadvantaged socioeconomic circumstances and the risk of being taken into out-of-home care in high income countries, that will synthesise this evidence (Melis et al., 2021). The review is ongoing and does not form part of this thesis, but it informs and supplements this literature review.

Across OECD countries, my principal outcome, out of home care, is consistently associated with parental unemployment (Andersen & Fallesen, 2010; Hiilamo, 2009; L. Jones, 1998; Kim et al., 1988; Ranning et al., 2015; M. B. Ubbesen et al., 2013), modest parental or grandparental educational attainment (Andersen & Fallesen, 2010; Berger & Waldfogel, 2004; Högberg et al., 2019; Perlman & Fantuzzo, 2013; Putnam-Hornstein et al., 2013; Rodriguez-JenKins & Marcenko, 2014; Teyhan et al., 2019), and receipt of income assistance – or, in the case of

Finland, where assistance may be protective, long-term assistance (Bebbington & Miles, 1989; Bhatti-Sinclair & Sutcliffe, 2012; Hiilamo, 2009; L. Jones, 1998; Needell et al., 1999; Roos et al., 2019; Wall-Wieler et al., 2018, 2019). Generosity of assistance has been found to be negatively associated with out of home care (Berger & Waldfogel, 2004; Esposito et al., 2017a; Rostad et al., 2020). The same is true of household income (Andersen & Fallesen, 2010; Berger & Waldfogel, 2004; Horwitz et al., 2011). Conversely, poverty and financial difficulty, variously defined, are positively associated with out of home care (Bhatti-Sinclair & Sutcliffe, 2012; Rodriguez-JenKins & Marcenko, 2014; Roos et al., 2019; Teyhan et al., 2019; Wulczyn et al., 2013). So too are poor socioeconomic conditions linked to inadequate housing and homelessness (Bhatti-Sinclair & Sutcliffe, 2012; Perlman & Fantuzzo, 2013; Rodriguez-JenKins & Marcenko, 2014). Finally, there is a marked social gradient in risk of out of home care according to deprivation of neighbourhood of residence (Green et al., 2019; Roos et al., 2019; Segal et al., 2019; D. E. Simkiss et al., 2012; Teyhan et al., 2019). In many of these studies, associations persist despite adjustment, indeed overadjustment, for a range of likely mediators of a causal relationship, including indicators of parental stress, family conflict and child health.

More recent quasi-experimental research, mainly from the US, points to a contributory causal relationship between poor socioeconomic conditions and child abuse and neglect (Bywaters, Bunting, et al., 2016; Bywaters et al., 2022). Studies exploiting the variation in state-level policies affecting socioeconomic conditions or the differential impact of financial shocks (Austin et al., 2023; Bywaters et al., 2022; Cancian et al., 2017; McLaughlin, 2017, 2018; Raissian & Bullinger, 2017), applying a range of methods for causal inference (Berger et al., 2017; Bywaters et al., 2022; Slack et al., 2007; Yang, 2015), or randomly assigning families to more generous or punitive welfare regimes (Cancian et al., 2013; Fein & Lee, 2003), strengthen the causal case. One Danish study used a difference in differences approach to demonstrate the increase in risk of out of home placement associated with the sudden introduction of a time-dependent ceiling on income assistance (Wildeman & Fallesen, 2017). A US study using fixed effects methods revealed a decrease in foster care entry associated with a state's adoption of refundable Earned Income Tax Credits (Rostad et al., 2020). In one Canadian Province, research using multilevel hazard models, and controlling for health and service spending, points to the increased risk of out of home placement in regions with higher poverty levels (Esposito et al., 2017b).

Despite this rapidly expanding literature across high income countries, there are major gaps in the UK evidence base. The lack of official, accessible data on the socioeconomic circumstances of child welfare-involved families has long held back research into the relationship with care entry (Bywaters, Bunting, et al., 2016). In 2015, linking area-level data on deprivation and

interventions rates, Bywaters revealed the scale of socioeconomic inequalities in care status in England (Bywaters, 2015). As part of the Child Welfare Inequalities Project (Coventry University, n.d.), researchers have since assessed patterns of inequalities across the four nations of the UK (Bywaters et al., 2020; W. Mason et al., 2020), explored inequalities at the intersection of ethnicity and deprivation (C. Webb, Bywaters, Scourfield, Davidson, et al., 2020), replicated US research on the contribution to care rates of area-level income inequality (Eckenrode et al., 2014; C. J. R. Webb et al., 2020), and identified an inverse intervention law underlying the social gradient (Bywaters, Brady, et al., 2016). This law refers to a systematically higher risk of out of home care in neighbourhoods situated in less deprived local authorities, than in *similarly* deprived neighbourhoods in *more* deprived local authorities – pointing to either systematic risk-aversion or rationing at the level of service delivery (C. Webb, Bywaters, Scourfield, McCartan, et al., 2020).

However, there remains a lack of longitudinal research into the socioeconomic pattern of the recent rise in children entering care in England, and into the mechanisms of the rise. We do not know the contribution to this rise of changes to welfare policy and cuts to preventative children's services. Little is known of the local decision-making context for action on child welfare inequalities, or of the current status, on the local policy agenda, of the major drivers of inequalities. The role of child protection systems and processes in exacerbating or mitigating the problem of child welfare inequalities is poorly understood, and policymakers' insights may pave the way for yet more research. This thesis fills these gaps.

Aims and objectives of the research

This research aims to further our understanding of inequalities in Children Looked After in England, with a view to informing local policy. My objectives are:

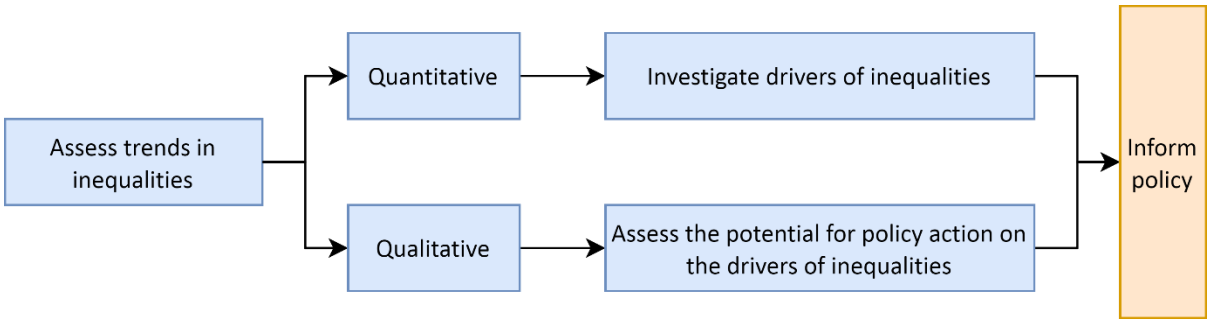
1. To assess trends in socioeconomic inequalities in children entering care in England.
2. To investigate potential drivers of changing inequalities, including expenditure on preventative children's services and child poverty.
3. To assess the potential for local policy action on the drivers of inequalities.
4. To explore local policymakers' own theories with respect to potential drivers.

Structure of the thesis

The thesis assembles my multiphase, mixed methods research into inequalities in Children Looked After in England. Multiphase research involves the sequential aligning of quantitative and qualitative studies in order to address a central program aim (W. Mason et al., 2020). Though

sequential (figure 3), there is cross-fertilisation between successive phases of this thesis; they inform each other in rich and complex ways.

Figure 3. Research roadmap.



In study 1 of the thesis, using mixed effects regression models, I assess trends in socioeconomic inequalities in children starting to be looked after in England, controlling for trends in unemployment (objective 1). I do the same for secondary outcomes, children newly placed on a child protection plan and children recorded as beginning an episode of need. Across all outcomes, I visualise trends in inequalities by age group, and, for children placed on a child protection plan, by recorded category of abuse.

Based on this initial study, I hypothesise that trends in inequalities might be driven by cuts to preventative children's services and rising child poverty over the period, precipitated by austerity. I test these hypotheses in studies 2 and 3 (objective 2), using within-between regression models applied to local area data in England to estimate the contribution of trends in exposures to trends in outcomes, controlling for confounders.

In study 4, a qualitative interview study with policymakers in Children's Services (objectives 3 and 4), using a policy analysis framework, I assess the potential for local policy action on the socioeconomic drivers of care entry identified in studies 2 and 3. The qualitative findings are extensive. In this chapter, therefore, I focus on how policymakers perceive the problem of rising care entry and inequalities.

The qualitative exploration of policymakers' own priorities foregrounded the perceived role of Ofsted inspections in exacerbating socioeconomic inequalities in care entry. I test this hypothesis in study 5, using mixed effects regression models (objective 4).

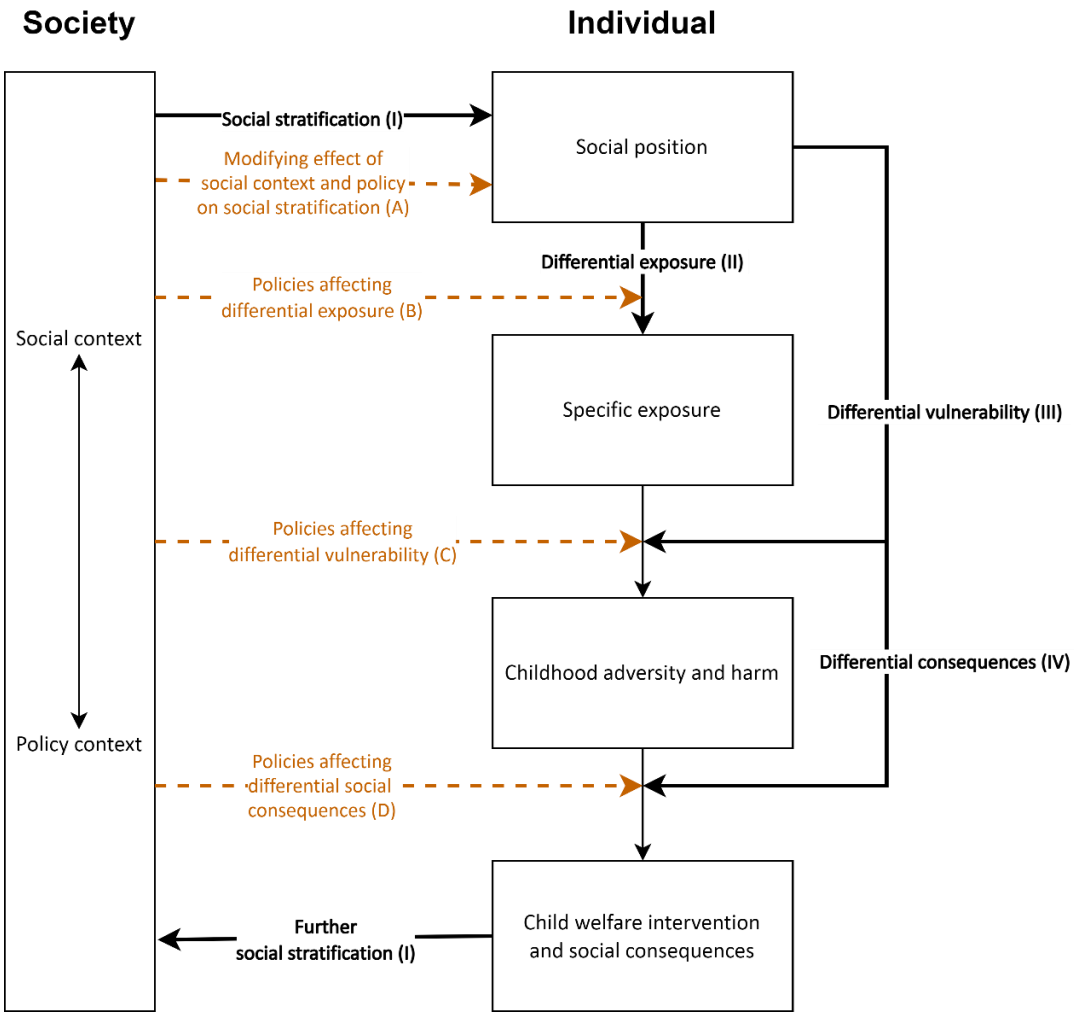
Conceptual framework

Throughout the thesis, analyses have been informed by Diderichsen and colleagues' model for conceptualising pathways to health inequalities (Diderichsen et al., 2001), adapted for my

purposes. Child maltreatment is the injury, care entry the potential consequence and my outcome of interest (figure 4). This model distinguishes four principal mechanisms of inequality:

I. Social stratification, the creation of a range of social positions in a process informed by the distribution of power and resources within specific social contexts;
II. Differential exposure to risk factors for maltreatment, the consequence of occupying a particular social position;
III. Differential vulnerability, whereby the strength of an effect for the same level of exposure may vary by social position, often due to the clustering and interaction of determinants of maltreatment; and
IV. Differential consequence of maltreatment, for example due to differential access to, or experiences of, support services. And although entry to care is the main outcome in this thesis, the differential consequences of either maltreatment or care may extend to poor health and social outcomes across the lifecourse and through successive generations (Straatmann et al., 2021). These differential consequences may, in their turn, compound social stratification (Diderichsen et al., 2001, 2012).

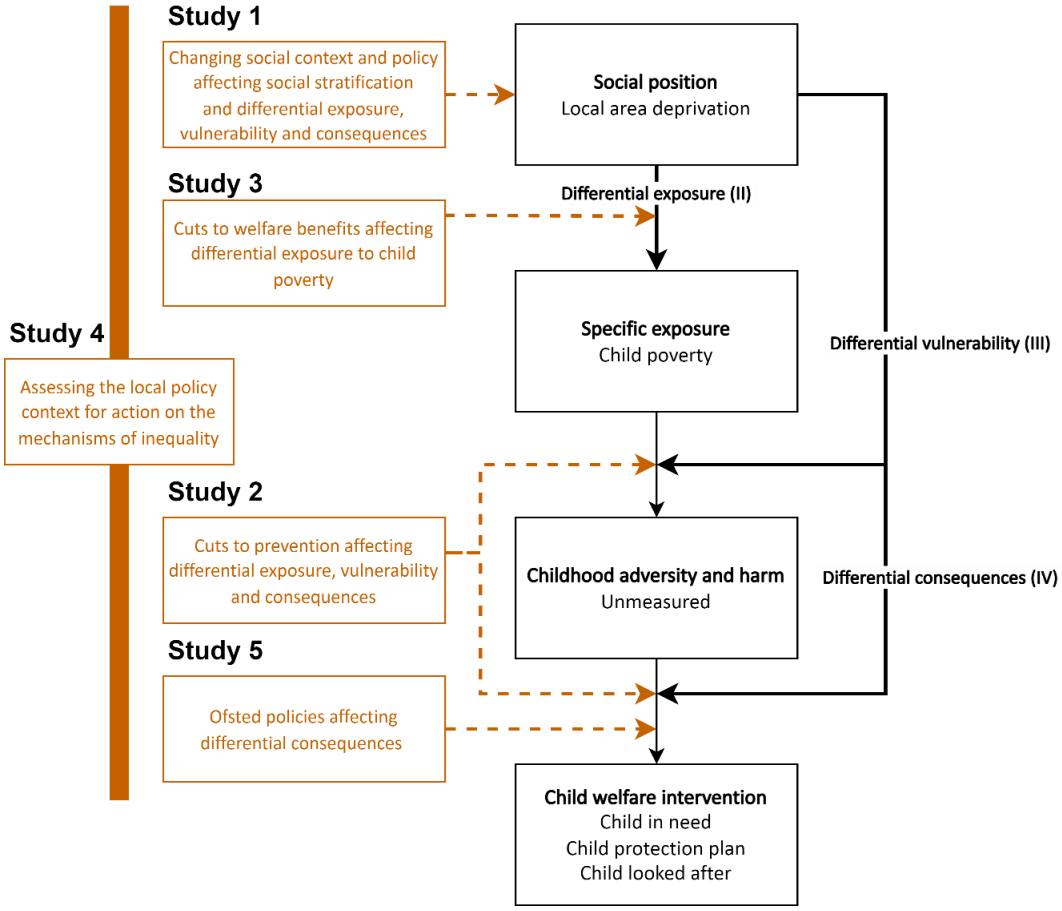
Figure 4. Conceptual model for studying the mechanisms of inequalities, adapted from Diderichsen et al. (Diderichsen et al., 2001)



Each study in this thesis interrogates the mechanisms of inequalities outlined in this conceptual framework (figure 5, overleaf) (Diderichsen et al., 2001). A changing social and policy context may affect all mechanisms of inequality, manifesting itself in trends in inequalities in care entry (study 1). In particular, cuts to welfare benefits may affect differential exposure to child poverty, a risk factor for child maltreatment (study 3). Cuts to universal, proportionate universalist or targeted preventative services may have a range of effects. They may further reduce income and employment prospects, exacerbating differential exposure to child poverty. However, these preventative services tend to focus on improving parenting behaviours (Biehal, 2019), and the cuts may be more likely to undermine resilience, increasing differential vulnerability to harmful exposures (study 2). Where children are already experiencing harm, they may also increase the risk of escalation through the child welfare system, amplifying differential consequences (study 2). Slowing or reversing the mechanisms of inequalities requires countervailing policy

intervention. Given the challenging national political context, getting the issue on to governmental agendas may require policy entrepreneurialism attuned to the decision-making environment within local authorities (study 4). Local policymakers may themselves have privileged insight into mechanisms of inequality at the level of service delivery, warranting further study. External shocks to the local child welfare system, as during an Ofsted inspection, may augment the differential consequences of childhood adversity and harm (study 5). Although the studies do not always disentangle single pathways to inequalities, the framework held my focus on the major leverage points for policy intervention.

Figure 5. Overview of the studies in this thesis, informed by the conceptual model adapted from Diderichsen et al. (Diderichsen et al., 2001)



Chapter 2. Study 1. Trends in inequalities in looked after children in England 2004-2019: a local area ecological analysis

Study 1 was first published as:

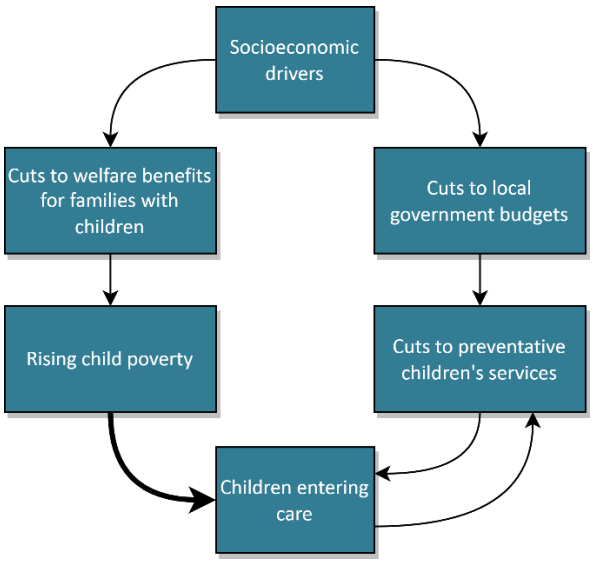
Bennett, D. L., Mason, K. E., Schlüter, D. K., Wickham, S., Lai, E. T., Alexiou, A., Barr, B., & Taylor-Robinson, D. (2020). Trends in inequalities in Children Looked After in England between 2004 and 2019: a local area ecological analysis. BMJ Open, 10(11), e041774. https://doi.org/10.1136/bmjopen-2020-041774

Commentary on study 1

The social gradient in child welfare interventions in England was established in 2015 (Bywaters, 2015). Researchers theorised that changing socioeconomic conditions following the recession might be fuelling the problem (C. J. R. Webb & Bywaters, 2018), but no studies assessed trends in inequalities over the period. This study is the first to quantify inequalities in child welfare outcomes in England longitudinally.

Inequalities widened. This is the starting point of the thesis, the deceptively simple insight that launches further research into the socieconomic drivers of care entry. Interpreting the findings, I theorise that cuts to local government budgets and welfare benefits may have contributed to the trends identified (figure 6).

Figure 6. Logic model of the theorised impact of austerity policies on care entry.



Abstract

Objective: To assess trends in inequalities in children becoming looked after in England between 2004 and 2019, after controlling for unemployment, a marker of the recession and risk factor for child maltreatment.

Design: Longitudinal local area ecological analysis.

Setting: 150 English upper-tier local authorities.

Participants: Children under the age of 18.

Primary outcome measure: The annual age-standardised rate of children starting to be looked after (CLA rate) across English local authorities, grouped into quintiles based on their level of income deprivation. Slope indices of inequality (SII) were estimated using longitudinal segmented mixed effects models, controlling for unemployment.

Results: Since 2008, there has been a precipitous rise in CLA rates, and a marked widening of inequalities. Unemployment was associated with rising CLA rates: for each percentage point increase in the unemployment rate, an estimated additional 9 children per 100,000 (95% CI 6-11) per year became looked after the following year. However, inequalities increased independently of the effect of unemployment. Between 2007 and 2019, after controlling for unemployment, the gap between most and least deprived areas increased by 15 children per 100,000 per year (95% CI 4-26) relative to the 2004-2007 trend.

Conclusions: The dramatic increase in the number of children starting to be looked after has been greater in poorer areas, and in areas more deeply affected by the recession. But trends in unemployment do not explain the decade-long rise in inequalities, suggesting that other socioeconomic factors, including rising child poverty and reduced spending on children's services, may be fuelling inequalities. Policies to safely reduce the rate of children becoming looked after should urgently address the social determinants of child health and wellbeing.

Introduction

Improving the health outcomes and life chances of Children Looked After is a matter of public health concern (Bywaters, 2015). In England, over the last decade, the prevalence of children in care increased dramatically, from 53 to 64 per 10,000 children, a rise of 20 percent. In March 2019, their number exceeded 78,000 (Department for Education, 2021c). The health outcomes and life chances of these children, many of whom have experienced abuse, neglect and other forms of acute adversity, may differ markedly from those of their peers. On average, individuals who have been looked after face worse outcomes across a range of measures, throughout the life-course – physical and mental health, education, offending, employment, income – relative to those who have not come in contact with child welfare services (D. Simkiss, 2012).

Reducing the economic burden associated with the consequences of CLA is of particular concern to policymakers: supporting CLA represents a major expenditure at local authority level. Across England, between 2011 and 2018, CLA spend increased by £1.9bn in real terms, to £4.6bn. Children's services have been described as approaching breaking point (Local Government Association, 2017). Internationally, there have been increasing calls for a preventative approach to CLA that addresses upstream risk factors for child abuse and neglect (O'Donnell et al., 2008).

A number of factors may have contributed to rising CLA rates in England over the last decade. High profile serious case reviews (CAFCASS, 2010), shifting understanding of the impact of different forms of childhood adversity (Featherstone, Gupta, Morris, & Warner, 2018), and legal judgements clarifying local authority statutory responsibilities (*R (on the Application of G) v Southwark London Borough Council*, 2009), may all affect thresholds for child welfare intervention. Wider economic changes may also underlie trends in CLA rates. Growing up in adverse socioeconomic circumstances (SECs) is an important risk factor for child abuse and neglect and for children being taken into care (Walsh et al., 2019), with poverty, unemployment and parental financial stress recognised as contributory causal factors (Bywaters, Bunting, et al., 2016; Hillson & Kuiper, 1994). Several experimental and quasi-experimental studies from the US have shown that raising family income and reducing poverty leads to a reduction in rates of child abuse and neglect (Bywaters, Bunting, et al., 2016; Cancian et al., 2013).

In 2008, the onset of the financial recession led to rising unemployment in England, and to fiscal policy with far-reaching social consequences. In 2010 the UK government began introducing a series of austerity measures with the stated intention of eliminating the budget deficit and reducing the national debt (HM Treasury, 2010). The welfare system has been a principal focus

of cuts and reforms (Department for Work and Pensions, 2015). These have adversely affected, in particular, families with children and those at greatest risk of poverty, fuelling a rise in child poverty (Tucker, 2017). At the same time, regressive cuts to local authority budgets have led to reduced spending on early childhood education and care, and other prevention services (C. J. R. Webb & Bywaters, 2018). Whilst increases in unemployment during the recession were dispersed across all parts of the country, changes in welfare provision and cuts to prevention have disproportionately affected deprived areas (Barr et al., 2015). If these changes are leading to increased incidence of child abuse and neglect, we would expect CLA rates to rise more rapidly in more deprived areas.

There are stark differences in rates of CLA across local authorities in England (Bywaters, 2015). Less clear is how these are changing over time. My aim in this study is to determine whether the rate of children becoming looked after increased more in deprived areas of the country, after controlling for unemployment – so parcelling out the effects of the recession itself from the effects of other possible drivers of changing inequalities. I further quantify trends in inequalities in children experiencing other forms of child welfare intervention, in order to assess whether findings for CLA are consistent across child welfare outcomes.

Methods

Data sources and measures

I undertook a longitudinal, local area ecological analysis of CLA rates in England. I used routinely available data from 150 upper-tier local authorities between 2004 and 2019, based on 2010 boundaries (appendix 1). Two local authorities, the City of London and the Isles of Scilly, were excluded due to their small population size.

My primary outcome of interest was the annual age-standardised rate of children becoming looked after by local authorities in England (hereafter referred to as 'CLA rate'). Panel data for the number of CLA, by age group, were drawn from the 'children looked after data return', submitted by local authorities to the Department for Education on 31st March annually (Department for Education, 2021c). I refer to the financial year by the latter year throughout. Direct age standardisation was performed using the national population distribution of children.

Secondary outcomes captured the wider population of children known to children's social care. Figure 1 outlines the different child welfare outcomes. The system has been likened to a 'funnel', with a progressively smaller number of children experiencing increasingly acute interventions. I used the annual age standardised rate of children becoming the subject of a child protection plan

('CPP rate'), and children beginning an 'episode of need' ('CIN rate'). Data for these outcomes between 2010 and 2019 were sourced from the Children in Need (CIN) Census records of children referred for social care support in England (Emmott et al., 2019). For children on a CPP, a breakdown of numbers by category of abuse were available. Disaggregation by age group was requested via a Freedom of Information request, and obtained for years 2012 to 2019.

As a measure of SEC, I used the income deprivation score of the 2010 Indices of Multiple Deprivation (IMD) (Ministry of Housing, Communities and Local Government, 2011). This is a non-overlapping count of individuals who, as a result of low earnings, qualify for means-tested benefits, as a proportion of the total population (Department for Communities and Local Government, 2015). I used 2010 scores based on 2008 data, collected prior to the implementation of austerity policies, to avoid conflating the time-invariant measure of deprivation with unmeasured time-varying exposures that may be changing in response to austerity policies, and so contributing to changing inequalities. In descriptive analyses, I categorised the income deprivation score, assigning local authorities to quintiles such that 20% of the 2008 child population was apportioned to each quintile. In regression models, I used a continuous measure of the income deprivation score, converted to a weighted rank by assigning a value from 0 to 1 based on the midpoint of the local authority's range in the cumulative distribution. When using this value as a continuous exposure variable in the regression model, the estimated coefficient expresses the change in the Slope Index of Inequality (SII), a commonly used indicator of the association between health outcomes and socioeconomic deprivation (Straatmann et al., 2019). The same value can be used to derive the change in the Relative Index of Inequality (RII) when the outcome variable in the regression model is log-transformed and the estimated coefficient exponentiated. In my statistical analyses, the SII represents the absolute difference, and the RII the relative difference, in child welfare outcomes between the local authority of lowest and highest level of income deprivation, taking into account the distribution of the child population across local authorities (Regidor, 2004).

My analyses also included local authority unemployment rates as a covariate in order to separate out the impact of the recession on child welfare outcomes, and so determine whether changes in inequalities were independent of the effects of unemployment. I used data on the number of people claiming Jobseeker's Allowance, plus those claiming Universal Credit who are out of work, as a proportion of residents aged 16-64, in the financial year (Office for National Statistics, n.d.). Although the measure does not capture all unemployment, it is precise and stable at local-area level, is highly correlated with survey-based measures of unemployment (Barr et al., 2012),

and spans the time period of interest. Since the effects of unemployment on child welfare outcomes are unlikely to be immediate, I lagged the variable by one year.

Statistical analysis

First, I assessed descriptive trends for the outcome CLA rate, across local authorities grouped into quintiles of income deprivation, between 2004 and 2019. Second, I estimated a segmented linear regression model, with: age-standardised CLA rate as the outcome; year, unemployment rate and income deprivation weighted rank as continuous independent variables; and random intercept and slope terms to account for the correlation between measurements within local authorities. Based on my initial descriptive analysis, I included a linear spline for the effect of calendar year, with one knot indicating the timing of the change in trend. I used an iterative search procedure to confirm the knot position resulting in the model with the smallest Bayesian Information Criterion value (Barr et al., 2017; Taylor-Robinson et al., 2019). I included an interaction between the spline terms for the effect of year and deprivation to allow for potential differences in trend by SEC (appendices 2-3).

I used this model to assess whether there was a significant change in the trend in CLA over this period, whether this differed by level of local authority income deprivation, and the potential contribution of unemployment to trends in the outcome. I estimated all model parameters by maximum likelihood, using generalized likelihood ratio statistics to compare nested models, and Wald statistics to test hypotheses about model parameters. Similar models were fitted for each secondary outcome, CPP and CIN rates, across years for which data were available, 2012-2019 – based on my descriptive analysis no linear splines were included in these models. Models were estimated using the lme4 package (Bates et al., 2015), in R version 3.5.1. I carried out supplementary analyses, assessing descriptive trends for all outcomes stratified by age, and, for CPP, by category of abuse (appendices 4-5), and deriving estimates based on the model (appendix 6). Finally, I fit a model with log-transformed values of the age standardised CLA rate as the outcome in order to derive the RII, and assess trends in relative, as well as absolute inequalities (appendix 7).

Results

Trends in child welfare outcomes

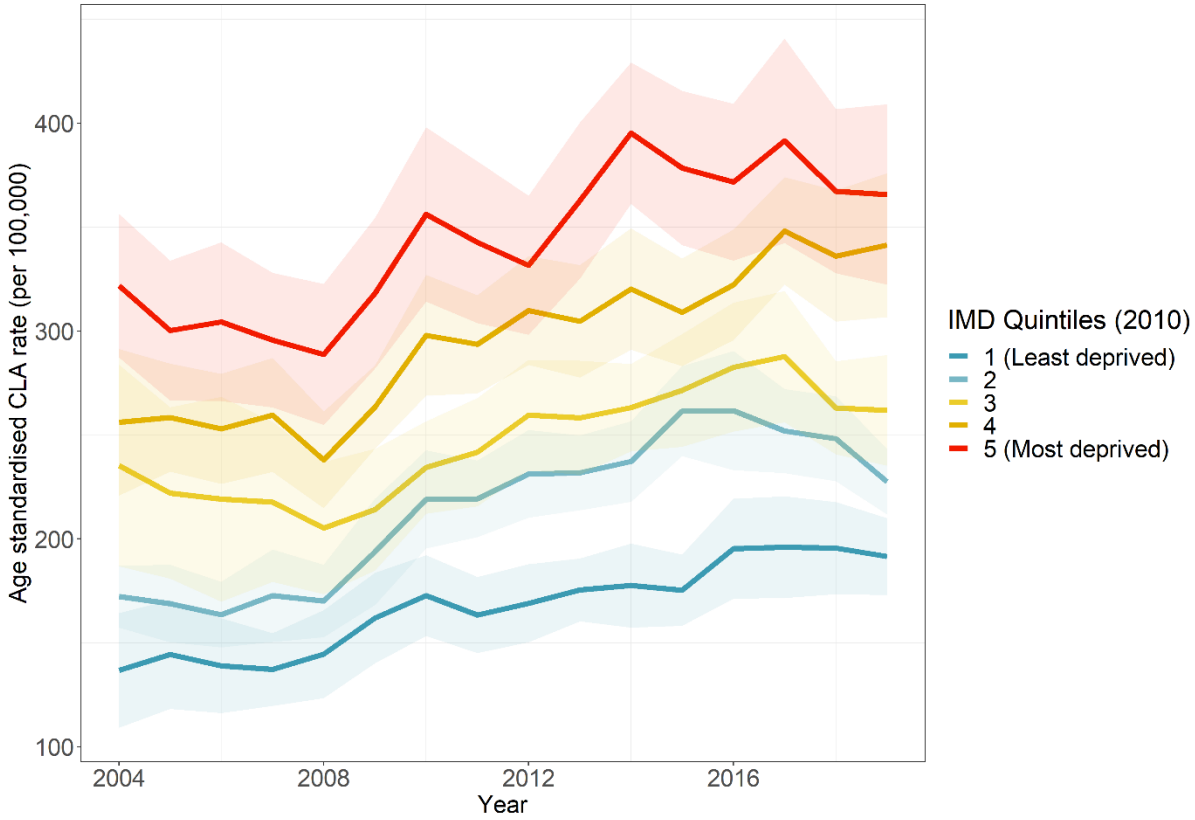
Figure 7 shows CLA rate, by local authority income deprivation quintile. Between 2004 and 2008, overall CLA rates dipped slightly: a small increase in the most affluent quintile was offset by decreases in more deprived areas. In 2008, the absolute difference in CLA rate between most

and least deprived quintiles was 144 per 100,000 (95% CI 104-184). From around 2008, there was a change in trend and CLA rates rose. A social gradient in CLA is apparent throughout, with the absolute difference between most and least deprived quintiles rising to 174 per 100,000 (95% CI 127-221) in 2019, an increase of 21% from 2008.

Figure 8 shows the CPP and CIN rates. As with CLA rates, CPP rates have risen since 2012, and show a clear social gradient. However, the increase occurred relatively evenly across all groups of local authorities, in all age groups. CIN rates also exhibit a social gradient, but trends appear to be relatively stable over time.

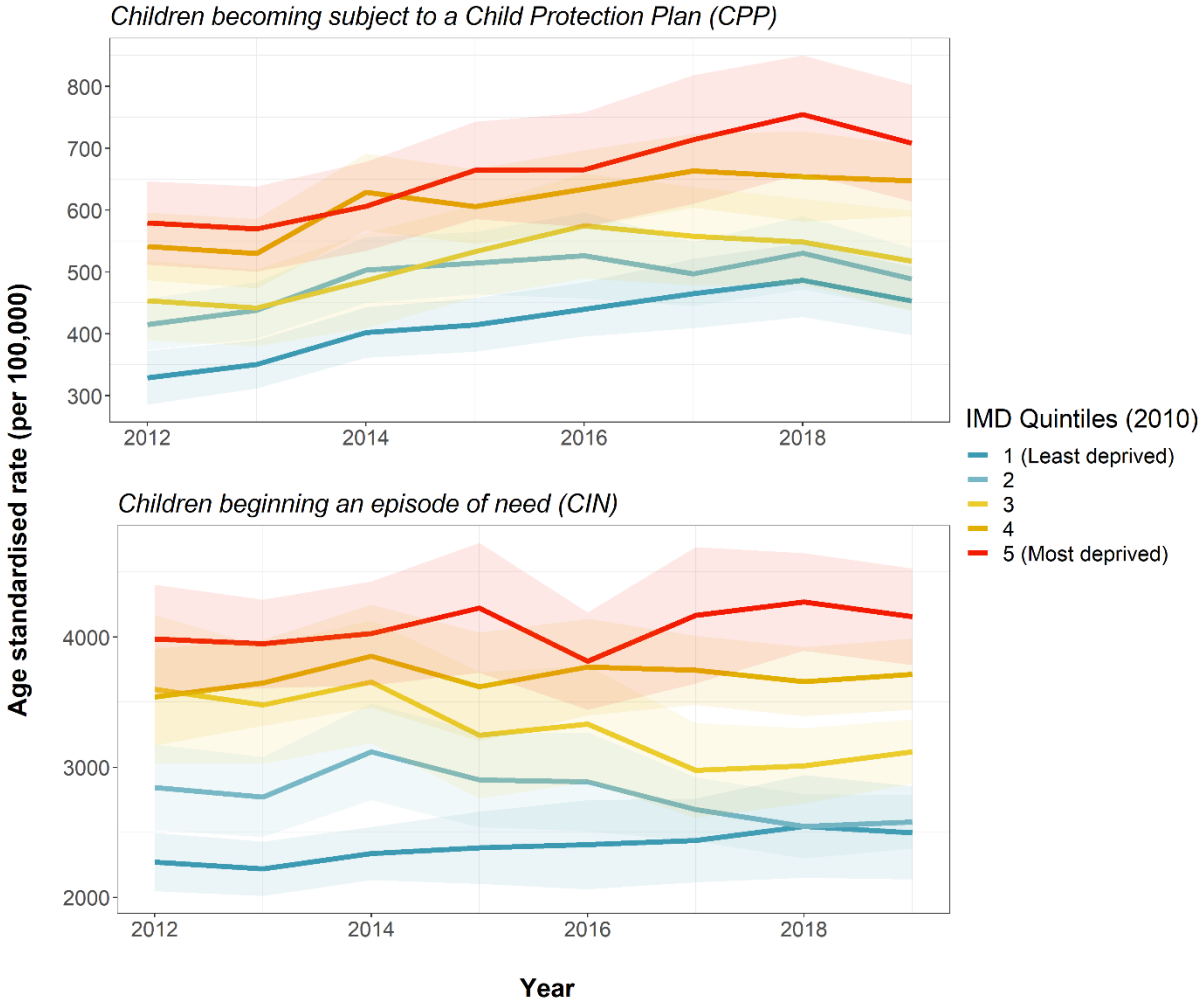
Supplementary analyses (appendix 4) show that the gap in CLA rates between most and least deprived quintiles differed by age. The gap is wide, but relatively stable over time in the youngest age group, children under 1. The gap is widening in the oldest age group, those aged 16-17. Finally, stratifying CPP rates by category of abuse complicates the overall picture of an even rise in rates across all local authority income quintiles: I uncovered a widening gap between most and least deprived areas in rates of children becoming subject to a CPP due to concerns about emotional abuse (appendix 5).

Figure 7. Age standardised CLA rate by LA income deprivation quintile, 2004–2019, with 95% confidence intervals.



Note: IMD, Index of Multiple Deprivation (income deprivation domain).

Figure 8. Age standardised CPP and CIN rates by LA income deprivation quintile, 2012–2019, with 95% confidence intervals.



Note: IMD, Index of Multiple Deprivation (income deprivation domain).

Segmented linear regression models

Tables 1-2 summarise the results of the segmented regression analyses. For full model output and residual diagnostics, see appendices 7-8. For CLA, a knot in 2007, ahead of the 2008 change in trend identified in the descriptive analysis, resulted in the best model fit, indicating a change in trend at this point (appendix 3). In the model, rising unemployment in the wake of the financial recession was independently associated with rising CLA rates: for each percentage point increase in the unemployment rate, an estimated additional 9 children per 100,000 (95% CI 6-11) per year entered care the following year. There were no associations between CPP and CIN rates and unemployment rates.

Table 1. Association between outcomes and unemployment rate.

Outcome and time period	Annual change (in children per 100,000) for a 1% increase in the unemployment rate the previous year [95% CI]
CLA rate, 2004-19	9.0 [6.5, 11.4]
CPP rate, 2012-19	-10.4 [-22.2, 1.4]
CIN rate, 2012-19	68.5 [-3.1, 140.1]

Note. For full model output, see appendix 7 table 9.

But unemployment rates do not account for differences in trends between more and less deprived local authorities. In 2004, after controlling for local authority unemployment, the SII was 193. This captures the absolute inequalities gap across the distribution of local authorities on the basis of area deprivation, indicating that there were 193 more CLA per 100,000 in the most deprived local authority, compared to the least deprived (95% CI 140-246). Between 2004 and 2007, this gap declined by 11 children per 100,000 per year (95% CI 0-22) (table 2). From 2007 there was a significant change in the trend in inequalities: the gap increased by 15 children per 100,000 per year (95% CI 4-26) relative to the previous trend. Relative inequalities follow the same trend (appendix 7). Altogether, based on the model, I estimate that an additional 18,567 (95% CI 3,553 - 33,394) children were taken into care between 2007 and 2019 than would have been expected had the rise from 2007 occurred in more deprived local authorities as it did in the median local authority (appendix 6).

Table 2. Trends in the Slope Index of Inequality across outcomes.

Outcome and time period	Annual change (in children per 100,000) in the Slope Index of Inequality [95% CI]
CLA	
2004-07	-11.4 [-22.3, -0.5]
2007-19, relative to previous trend	14.9 [3.6, 26.2]
CPP	
2012-19	4.4 [-11.2, 20.0]
CIN	
2012-19	47.1 [-62.7, 156.9]

Note. For full model output, see appendix 7 table 9.

Discussion

Main findings

The dramatic rise in CLA in England since 2008 has been greater in poorer areas of the country, increasing inequalities. Overall an additional 18,567 (95% CI 3,553 - 33,394) children were taken into local authority care between 2007 and 2019 than would be expected if the rise from 2007 had occurred more evenly across local authorities. These findings cannot be explained by local unemployment trends, and are consistent with my hypothesis that austerity measures may have contributed to rising rates of child welfare interventions. The analysis also shows that the rise in CLA was associated with rising unemployment at local authority level, a marker of the recession.

Trends in inequalities in CLA are not simply mirroring broader trends throughout the 'funnel' of children's social care. Whilst CPP rates are also rising, and show a clear social gradient, I did not find a greater increase in more deprived compared to less deprived areas for children becoming the subject of a CPP and beginning an episode of need.

Several studies have described trends in child welfare outcomes or child maltreatment in the UK. These support my finding of a change in trend and rising rates from around 2007-08 (Chandan et al., 2020) and add context, demonstrating that the turn has followed a thirty-year decline in overall rates – though the rise in CPPs due to neglect and emotional abuse have been rising since the 1990s (Degli Esposti et al., 2019). However, to my knowledge no studies have yet documented trends in inequalities. Paul Bywaters and colleagues at the Child Welfare Inequalities Project began producing evidence of persistent and systematic inequalities in child welfare interventions in the UK beginning in 2015 (Bywaters, 2015). This longitudinal analysis of inequalities is indebted to their work.

Strengths and limitations

This study is the first to quantify inequalities in child welfare interventions longitudinally. A strength is that it uses routinely available data for the whole of England, and explores several child welfare outcomes in order to describe trends throughout the child welfare system.

There are several important study limitations. Due to the lack of individual level data, I used an ecological area-level analysis, and cannot identify whether children entering care were directly affected by income deprivation and unemployment. Conceptually, my portrayal of children's social care as a funnel reflects a theoretical model of how a well-functioning system might operate (figure 1), and may not reflect the trajectory of many individual children and families experiencing child welfare intervention. The association between income deprivation and unemployment rates and child welfare outcomes in the analysis may be due to trends in unobserved time-varying confounding factors that varied between local authorities.

Trends in the data reflect the interaction between underlying need and Children's Services response and I interpret my findings in this light, with caution. Previous analyses by Bywater and colleagues demonstrated the existence of an 'inverse intervention law' in child welfare outcomes: a greater risk of intervention in less deprived compared to more deprived local authorities for the same level of neighbourhood deprivation (Bywaters et al., 2015), despite lower overall intervention rates. My models at the level of local authorities do not account for the inverse intervention law or rising thresholds reported in more deprived areas. However, this must add weight to the findings: insofar as they reflect changing underlying need, the estimates of the SII are likely to be highly conservative.

Potential explanations of my findings

Changing thresholds

Several changes during this time period may have influenced thresholds for intervention. Firstly, the death by violence of baby Peter Connelly occurred in 2007, when we see a change in the trend of CLA in the data (Haringey Local Safeguarding Children Board, 2009). Media and political narratives that emerged in the aftermath of his death centred on the failure of Children's Services to intervene (Warner, 2014), and ensuing reports by The Children and Family Court Advisory and Support Service note a 'Baby P effect', a marked, short-term rise in applications for care orders in a risk-averse environment (CAFCASS, 2010). This likely accounts for some of the change in trend and initial rise in CLA rates from 2007. Others have argued that a greater policy focus on early intervention and adoption in order to improve outcomes for children experiencing adversity has led to a more interventionist, less family-oriented approach (Featherstone et al., 2014). Secondly, in 2009 the Southwark Judgement clarified and reinforced local authorities' statutory duties in relation to 16-17 year olds presenting to the local authority as homeless (*R (on the Application of G) v Southwark London Borough Council*, 2009). This, together with a general shift in practice towards regarding adolescents as vulnerable children rather than nascent adults (NSPCC, 2014), and greater awareness of extra-familial forms of abuse and principles of contextual safeguarding (J. Lloyd & Firmin, 2020), may be contributing to the rising rates of 16-17 year olds across all outcomes. However, these events are unlikely to fully explain the long-term rise in CLA rates disproportionately affecting more deprived areas.

Economic trends

There is evidence of a positive association between unemployment and CLA rates. Though evidence from the UK is scarce, this aligns with Gillham et al.'s finding of a correlation between

male unemployment and child physical abuse in Scotland in the early 1990s (Gillham et al., 1998) and more recent and extensive evidence from the US demonstrating an association between the recession and increased risk of abuse (Brooks-Gunn et al., 2013; Cherry & Wang, 2016; Millett et al., 2011). The family stress model posits that heightened stress due to adverse SECs may erode mental health and strain domestic relationships, leading to negative parenting behaviours and increased risk of child abuse and neglect. Barr et al.'s study of the mental health impact of the recession lends credence to this theorised mechanism, demonstrating an association between unemployment and mental health problems in the UK over the same period (Barr et al., 2015). Yet unemployment did not fully explain changes in CLA rates in the analysis, and unemployment rates have fallen rapidly since 2012: unemployment cannot explain the continued increase in CLA after 2012, nor does it explain rising inequalities. Austerity policies subsequent to the initial recession 'shock' may have compounded poor outcomes, affecting inequalities in CLA in several ways.

Changes to welfare provision and prevention

Regressive cuts to English local authority budgets, with deeper cuts in more deprived areas, have precipitated a shift in expenditure away from prevention towards acute services(C. J. R. Webb & Bywaters, 2018). Between 2011 and 2018, spending on CLA increased by 68% in real terms, whereas spending on early years preventative services (including Sure Start) and non-statutory young people's services fell about 21%. Reports of rising thresholds for early help in more resource constrained settings, have raised concerns that we are 'storing up trouble' for the future (All Party Parliamentary Group for Children, 2018). A surge in children entering care who might have benefited from early support could explain the greater rise in more deprived local authorities. Adolescents may be particularly susceptible to the consequences of austerity, exposed as they are on multiple fronts, not just in the household and schools, but increasingly in the wider community. Combined cuts to welfare benefits, youth services (Kelly et al., 2018), children's mental health services (Children's Commissioner for England, 2017), and community policing (Strickland et al., 2017), might disproportionately affect adolescents in more deprived areas, contributing to widening inequalities in this age group.

Changes to welfare benefits have led to rising child poverty, a contributory causal factor in child abuse and neglect (Bywaters, Bunting, et al., 2016; Tucker, 2017). Averages losses in earning were particularly high in the more deprived West Midlands and the North West (Tucker, 2017). The most vulnerable children on the edge of care, living in families already struggling to cope, may be particularly sensitive to changes in welfare benefit provision. In particular, the phased

introduction of Universal Credit from 2013, with its monthly payments in arrears, enhanced conditionality and punitive sanctions, may have compounded financial stress (Tucker, 2017) and poor parental mental health (Wickham et al., 2020). This would increasingly lead to more children entering care in deprived areas, contributing to trends in inequalities uncovered in this study. Further research is needed to investigate the impact of changing local authority prevention spend and child poverty on child welfare outcomes.

Policy and practice implications

I demonstrate that the increase in CLA rates from 2007 has been greater in more deprived local authorities. Although it is not possible to say what constitutes an appropriate CLA rate (Bywaters et al., 2020), a differential rise by local authority deprivation that cannot be explained by the recession is consistent with an increase in underlying need fuelled by welfare changes and cuts to prevention services. While anti-poverty social work practice has a crucial role to play in safely reducing CLA rates and inequalities (Morris et al., 2018), this must be supported by wider policies to address the social conditions of children's lives. At the national level, this must begin with a renewed commitment to ending child poverty. Tightened social security for families with children, and increased funding for local authority Children's Services, are safeguarding priorities. At the local level, holding the line on prevention services, amidst statutory pressures, may yield long-term social and economic benefits. Investment in children is key.

Chapter 3: Study 2 – Funding for preventative children's services and rates of children becoming looked after: a natural experiment using longitudinal area-level data in England

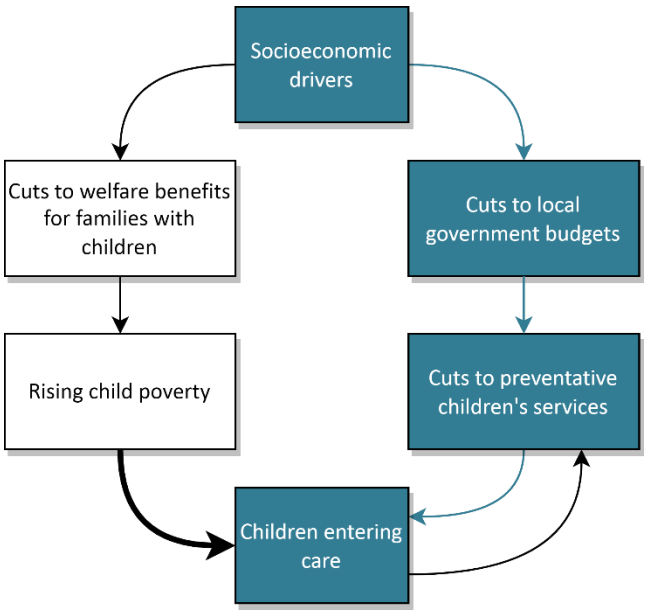
Study 2 was first published as:

Bennett, D. L., Webb, C. J., Mason, K. E., Schlüter, D. K., Fahy, K., Alexiou, A., Wickham, S., Barr, B., & Taylor-Robinson, D. (2021). Funding for preventative children's services and rates of children becoming looked after: a natural experiment using longitudinal area-level data in England. *Children and Youth Services Review*, *131*, 106289. https://doi.org/10.1016/j.childyouth.2021.106289

Commentary on study 2

Study 1 exposed the widening inequalities in care entry in England and suggested that unequal cuts to preventative children's services and welfare benefits may have played a part. Study 2 tests the former hypothesis (figure 9). Taking an age stratified approach, and using within-between regression models, it assesses the contribution of trends in prevention spend to trends in care entry at a year's remove, controlling for likely confounders. This is, to my knowledge, the first empirical analysis of the impact of cuts to preventative children's services on care entry in England.

Figure 9. Logic model of the theorised impact of austerity policies on care entry. Study 2 addresses the pathway in turquoise.



Abstract

Background: Children in care face adverse health outcomes, throughout the life-course, relative to the general population. In England, over the last decade, the rate of children entering care has increased. The rate of change differs markedly for older and younger children, who may also experience different preventative services. These services have been subject to inequitable spending reductions due to fiscal policies trailing the 2008 recession.

Objective: To assess the impact of cuts to prevention on rates of preschool children and adolescents entering care between 2012 and 2019.

Participants and Setting: Children aged 1-4 and 16-17 years, across 150 English upper-tier local authorities.

Methods: My outcomes were annual rates of children entering care, aged 1-4 and 16-17. My exposures were Children's Services prevention spend per child under 5, and per child over 12. Regression models were used to quantify, within areas, associations between trends in prevention spend and trends in rates of children entering care, controlling for employment and child poverty rates.

Results: There was no evidence of an association between changes in prevention spend per child under 5 and changes in care entry for 1-4-year-olds. However, spending reductions per child over 12 were associated with rising rates of 16-17-year-olds entering care. Every £10 per child decrease in prevention spend was associated with an estimated additional 1.9 per 100,000 children aged 16-17 entering care the following year (95% CI 0.7 to 2.9), equivalent to 1 in 25 care entries in this age group between 2012 and 2019.

Conclusion: This study offers evidence that rising rates of older children entering care has partly been driven by cuts to prevention services catering to their needs. Policies to tackle adverse trends should promote reinvestment in youth services, placing ordinary help on a robust statutory footing.

Introduction

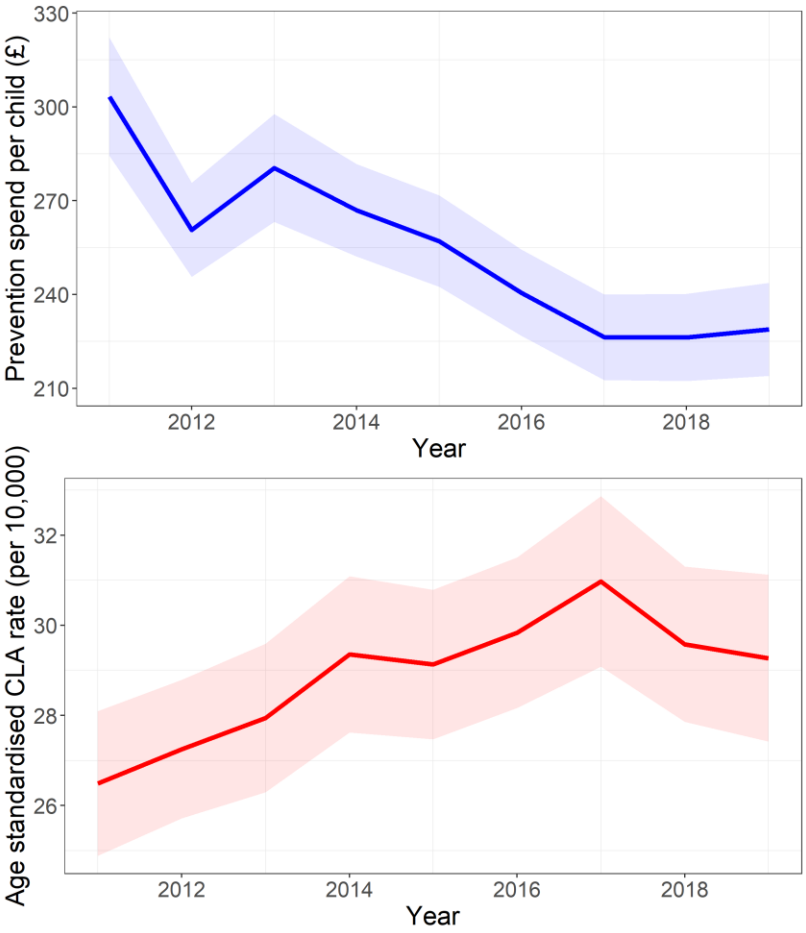
Between 2011 and 2019, there was a precipitous rise in the rate of children entering state care in England, from 23 to 27 per 10,000 children (Department for Education, 2011a, 2012a, 2021). The absolute rise has been greater in poorer areas, increasing inequalities (D. L. Bennett et al., 2020). It has also been particularly pronounced among children aged 16-17 years. Rates for these children more than doubled, from 26 to 53 children per 10,000 – a greater relative and absolute rise than for any other age group. In contrast, among children aged 1-4, rates remained relatively stable, decreasing slightly from 22 to 20 children per 10,000 (Author's analysis of DfE, 2022).

International research into experiences of adversity in childhood has exposed their lifelong health and social consequences and significant contribution to the global burden of disease (Hughes et al., 2017; Rod et al., 2020). Ample research has shown that adverse socioeconomic conditions are important, modifiable risk factors for child maltreatment and care entry (Bywaters, Bunting, et al., 2016; Conrad-Hiebner & Byram, 2020). Children in care are particularly vulnerable to these consequences, having endured adversity sufficiently severe for the State to intervene in their upbringing (Font and Maguire-Jack, 2020; Meltzer et al., 2003; Viner and Taylor, 2005a). In England, a recent study shows that, up to 42 years after initial care assessment, care-experienced adults have a higher mortality risk, with a higher risk for more recent assessments, than adults with no experience of care (Murray et al., 2020a).

Preventative services have undergone significant upheaval over the past decade. The UK government's policy response to the 2008 recession severely constrained local government. Between 2011 and 2018, across England, central government funding for local authorities fell by 49.1% (National Audit Office, 2018), with no corresponding reductions in local authorities' statutory responsibilities. Despite ongoing emphasis on prevention and early help for long-term cost savings in health and social care (Department of Health and Social Care, 2018), and widespread recognition that a failure to do so means 'storing up trouble' for the future (All Party Parliamentary Group for Children, 2018), non-statutory, preventative services have inevitably borne the brunt of reduced public spending (C. J. R. Webb & Bywaters, 2018). Deprived areas with a smaller tax base, less able to raise funds locally, have been worst affected. The introduction of the business rate retention scheme in 2013, whereby local authorities may retain half of business rates growth, further compounded funding inequalities, watering down the needs-based component of the formula used to determine resource allocation (Alexiou, Fahy, et al., 2021). Children's Services were not spared (figure 10). Between 2011 and 2019, as rates of children in care increased, total spending on preventative services for children and families fell by

about 25% in real terms, with deeper cuts in more deprived areas (appendix 9). 'Prevention spend' refers here to any spend not associated with either the running of social services, or children in care.

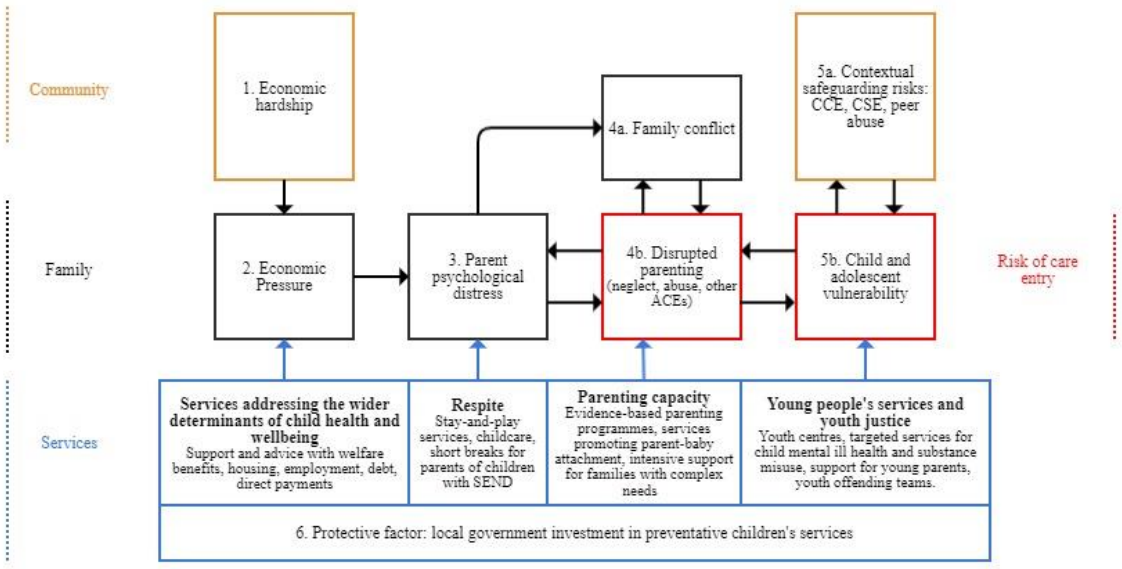
Figure 10. Trends in total prevention spend, and age standardised CLA rate, 2011-19, across LAs in England.



Children's Services preventative spending may influence the risk of children becoming looked after through a variety of plausible mechanisms (figure 11). In England, under Section 17 of the Children Act 1989, local authority Children's Services are tasked with delivering prevention and 'early help' to children and families who would benefit from support due to their health and development needs, but do not meet thresholds for statutory child protection intervention. Local authorities are expected to provide evidence-based services attuned to local need (HM Government, 2018). A broad range of services may be delivered, including: Sure Start Children's Centres – community-based spaces intended to offer integrated care and services to young children and their families, inspired by the US Head Start programme (Purcell, 2020a); intensive, targeted support for families with multiple and complex needs; contributions to community-based initiatives such as the Family Nurse Partnership; universal recreational and educational

services for children over the age of 12; targeted support for adolescents; broader strategies aiming to reduce under 18's conception; counselling services for children and families; and youth justice services supporting children who have been in trouble with the law (Education Funding Agency, 2014). For further detail see appendix 10. While different services may have differing objectives and theorised mechanisms (figure 11), all seek to promote children's welfare, alleviate family stress, and forestall poor outcomes for children, including those that would warrant care entry.

Figure 11. Logic model of mechanisms for the impact of Children's Services prevention spend on the risk of children becoming looked after, adapted from Masarik and Conger's family stress model (Masarik & Conger, 2017).



Note. CCE - Child Criminal Exploitation; CSE - Child Sexual Exploitation; ACEs – Adverse Childhood Experiences; SEND – Special Educational Needs and Disabilities.

There is a patchwork of evidence on the prevention of child maltreatment, from evaluations of complex policy-driven interventions such as Sure Start Children's Centres and the Family Nurse Partnership (National Evaluation of Sure Start (NESS) Team, 2012; Robling et al., 2016), to randomised controlled trials of more rigidly defined programmes (Miller & Harrison, 2015). A 2009 systematic review of reviews of child maltreatment prevention identified home-visiting, parent education, abusive head trauma prevention and multi-component interventions as promising, but lamented the scarcity of methodologically rigorous research (Mikton & Butchart, 2009). In England, high profile reviews including the Allen reports (Allen, 2011), and work by the Early Intervention Foundation (Early Intervention Foundation, 2021), have led to widespread institutional support for early intervention into the lives of very young children, usually under two-years old. A greater emphasis on early intervention and securing a permanent,

stable home environment has emerged, recalibrating the relationship between the family and the State (Featherstone et al., 2014; White et al., 2014). One consequence of the strong research focus on young children has been a relative paucity of evidence for the impact of early help on older children who come to the attention of Children's Services (Wastell & White, 2012). Adolescents tend to require long-term, whole-family and contextual early support (Thoburn et al., 2013); many experience acute risks beyond the family home, in the community, from peers and child criminal and sexual exploitation (Firmin, 2017). These services' complexity present challenges for research, and the absence of a good evidence base increases their vulnerability to spending cuts relative to early years services (W. Mason, 2015; White et al., 2014).

The difficulty of generating evidence for complex interventions through traditional experimental designs (Meadows, 2007; Stewart-Brown, 2012; Stewart-Brown et al., 2011) has led to renewed interest in natural policy experiments for evaluating the broader ecology of public services (Craig et al., 2018; Ogilvie et al., 2019; C. Webb, 2021b). Natural policy experiments are defined here as policies "not under the control of the researchers, but (…) amenable to research which uses the variation in exposure that they generate to analyse their impact" (Craig et al., 2011, p. 4). They are considered a promising alternative to experimental designs, particularly where there is a limited evidence base for policy intervention (Hu et al., 2017; Petticrew et al., 2005; Roe & Just, 2009). They have been used to assess the impact of spending cuts in a variety of contexts (Alexiou, Fahy, et al., 2021; McCartney et al., 2020; Reeves et al., 2016). In England, each local authority has responded differently to central government cuts, depending on the depth of the cuts, local strategies, and political priorities. Previous research has highlighted that the unequal reduction in funding for prevention may have contributed to the uneven rise in children becoming looked after across England (D. L. Bennett et al., 2020; Bywaters et al., 2018), opening up the potential for evaluating the impact of this variation in spending as a natural policy experiment.

In this study, therefore, I exploit the natural policy experiment borne of the differential impact of reduced central government funding across local authority Children's Services in England, to assess the relationship between changing investment in preventative services and changing rates of children becoming looked after. Given the divergent approaches to early help for young children and young people, I examined outcomes for children at different extremes of the age spectrum, children aged 1-4, and, separately, children aged 16-17. The two age groups present the best possible match to the spend data available, allowing for the clearest possible delineation of age-specific service funding. Both groups of children are old enough to have directly benefited

from services; they are not subject to England's primary and secondary compulsory school age, and so may be more likely to depend on Children's Services support.

Methods

Data sources

I conducted a longitudinal study at local authority level in England using panel data from 150 English upper-tier local authorities between 2011 and 2019. Two local authorities, the City of London and the Isles of Scilly, were excluded due to their small population size.

My primary outcome was the annual rate of children starting to be looked after by local authorities in England, between 2012 and 2019. I investigated outcomes for children aged 1-4, and young people aged 16-17. For the younger age group, count data were drawn from the 'children looked after data return', submitted by local authorities to the Department for Education annually. Data for 2013-2019 are published on a dedicated website (Department for Education, 2021c). Data for earlier years are available from the National Archives (Department for Education, 2011a, 2012a). For the older age group, a Freedom of Information request yielded count data excluding unaccompanied children seeking asylum, who are likely to be older, and whose care status is unlikely to be related to changes in local authority prevention spend, my exposure of interest (Department for Education, 2020).

I defined two age-specific measures of prevention spend between 2011 and 2018, relevant to the two outcome measures: '*prevention spend per child aged under 5'*, and '*prevention spend per child aged over 12*'. Spend data for every local authority in England were taken from Section 251 expenditure statements, published by the UK Ministry of Housing, Communities & Local Government, and compiled for years 2011-2018 in the place-based longitudinal data resource (Place-based Longitudinal Data Resource, 2019). These data capture spending across a range of broad categories, allowing for some limited specificity in relation to age. For categories relating to preventative services, the widest possible age range of intended beneficiaries was identified based on 2013 guidance to local authorities, in which age-ranges for key categories were first made explicit (Department for Education, 2013), and used to derive a spend-per-child estimate.

The population of children of the relevant age-range, sourced from Office for National Statistics (ONS) mid-year population estimates, formed the denominator (Office for National Statistics, 2020). I then summed age-relevant spend-per-child estimates, defining my two age-specific measures. Both measures encompass spend in the categories 'family support' and 'other children and family services', which may benefit children of any age. The measure 'prevention spend per

child aged under 5' includes spend in the category 'Sure start children's centres and early years'. The measure 'prevention spend per child aged over 12' includes spend in the categories 'services for young people', and 'youth justice'. For further details of the categories, and how the age-specific measures were defined, see appendix 10. All spend figures were adjusted for inflation to 2019 prices using the consumer price index deflator (Office for National Statistics, 2021b). I refer to the financial year by the latter year throughout.

In all models, I controlled for local economic trends that may confound the association between prevention spend and care entry rates. These trends may be monitored by local authorities attempting to gauge need and forecast spend; they may also affect care entry rates via their impact on family stress and parental behaviours. I controlled for: trends in employment, using Labour Force Survey data on employment rates for the working age population (Office for National Statistics, 2019a), a commonly used measure of economic participation (Department for Business Innovation and Skills & Department for Communities and Local Government, 2010; UK Commission for Employment and Skills, 2014); and trends in regional child poverty rates, using Households Below Average Income (HBAI) statistics on the proportion of children living in households with less than 60% of contemporary household median income, after housing costs (Department for Work and Pensions, 2020).

Statistical analyses

Using age-stratified scatter plots, I first visually explored the unadjusted association between changes in prevention spend and changes in the CLA rate, across local authorities. For each local authority, I took the absolute difference in prevention spend and CLA rates between two time points, 2011 and 2018. I plotted change in CLA rates on the y-axis against change in prevention spend on the x-axis.

I then used within-between regression models (Allison, 2009) to estimate, across the whole time period, the within-local authority association between prevention spend and CLA rates. These models allowed me to control for time-invariant differences between areas and national trends affecting all areas equally, as in a fixed-effects regression approach, while also allowing me to estimate random intercepts to account for the correlation of observations within local authorities. They make use of the between-local authority variation in responses to budgets cuts to tease out the contribution of those cuts to rising CLA rates. I stratified analyses by age, examining CLA rates for 1–4-year-olds in relation to prevention spend per child under 5, and CLA rates for 16–17-year-olds in relation to prevention spend per child over 12. The allocation of resources within Children's Services may be informed by changing levels of anticipated need

in an area. I therefore controlled for local area employment rates, and regional child poverty rates, both potential confounders. Since we would not expect a change in the exposure and control variables to have an immediate effect on CLA rates, these variables were lagged by one year. The resulting models were used to estimate the contribution of changing prevention spend for children and families to rising CLA rates (for model formula, see appendix 11).

Using these models, and in order to contextualise my findings, I estimated the marginal difference between observed trends, and trends that might have been expected had prevention spend remained constant, in effect the total number of care entries linked to the cuts. For each local authority in each year, I took the difference between model estimates under observed conditions, and model estimates under the counterfactual scenario of constant prevention spend from 2011, summing these differences across all years, 2011-2018. I repeated this for 1,000 random draws from the sampling distribution of model parameters to derive confidence intervals for my estimate. Random error was assumed to be comparable under these two scenarios. All models were estimated using the "panelr" package (Long, 2020), in R version 3.6.3.

Robustness tests

I undertook several robustness tests. First, to test whether associations identified in the main analysis were likely due to unmeasured confounding, I conducted negative control analyses (Lipsitch et al., 2010; K. E. Mason et al., 2021). I repeated the main analyses, using age-inappropriate categories of spend as negative control exposures: expenditure on 'Sure Start Children's Centres and early years' for children aged 16-17; and expenditure on 'services for young people' for children aged 1-4. Any observed association between these negative control exposures and the outcomes would be non-causal, indicating likely residual confounding in primary analyses. If no association is observed, a causal interpretation of the primary associations is more plausible. Second, since reliable child poverty data for the time period were only available at regional and not local authority level, and to explore outcomes when more effectively controlling for this potential confounder, I fit the main models aggregating all data to regional level. Third, due to potential variation in expenditure recording practices between areas, and within areas longitudinally, I fit models for both age groups to alternative specifications, using total prevention spend per child as the exposure, rather than age-relevant spend. Fourth, to address possible bias due to mathematical coupling that could result from both the exposure and outcome measures sharing the same denominators (i.e., the population), fit Poisson regression models with the log of the population as an offset rather than modelling CLA rates directly (Berrie, 2019) and repeated the main analysis, conditioning on the child population relevant to

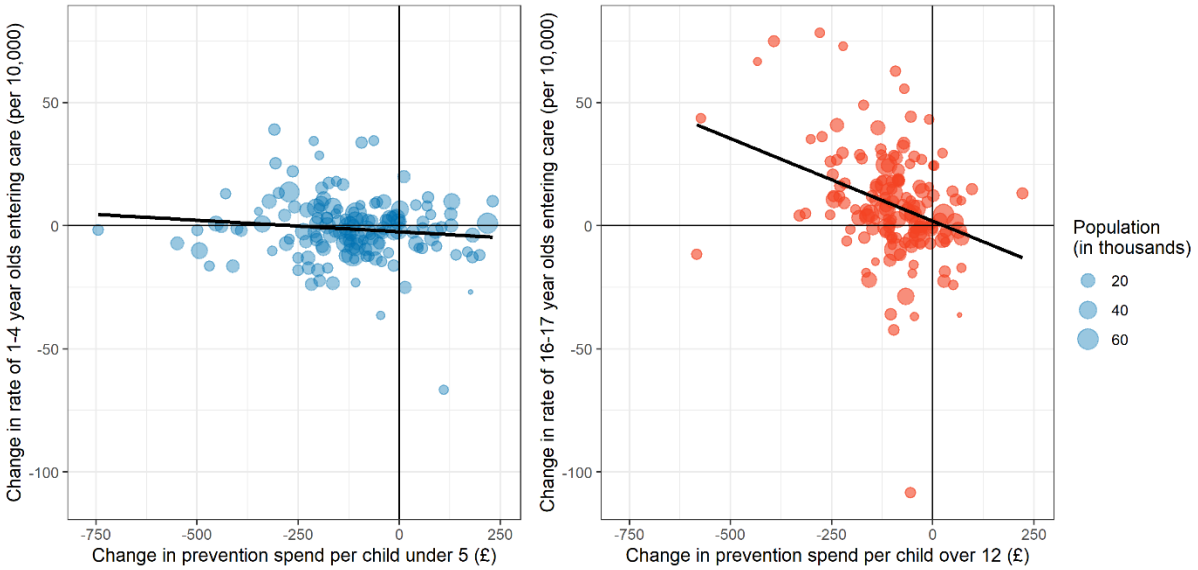
the outcome by including the population and (1/child population) in the models (Tennant, 2023a). Fifth, I excluded from the analyses any notable outliers. Finally, I excluded from analyses all London local authorities, to ensure that findings were not due to the capital's idiosyncrasies (Allan et al., 2017).

Results

Main results

Summary statistics are presented in appendix 12. The exploratory scatter plots show negative associations, particularly for older children, between the change in prevention spend per child and the change in CLA rate, between 2011 and 2018, in each local authority (figure 12).

Figure 12. Age-stratified scatter plots showing associations between the change in prevention spend between 2011 and 2018, and changes in the rate of children starting to be looked after, between 2011 and 2018, in each LA.



My modelling results tell a similar story. While the model for children aged 1-4 shows no association between prevention spend and rates of young children becoming looked after within local authorities, the model for children aged 16-17 shows that, between 2011 and 2018, across English local authorities, and after controlling for local economic trends and regional child poverty, a £10 per child cut to prevention spend was associated with 1.9 per 100,000 additional 16-17 year olds becoming looked after the following year (95% CI 1 to 3). Table 3 summarises the output of the models (for full model output, see appendix 13). I estimate that 1,077 additional adolescents became looked after between 2012 and 2019 than would have been expected had 2011 levels of funding been sustained (95% CI 414 to 1,772), equivalent to 3.9% of

total care entrants in this age group. Approximately 1 in 25 care entries over the period, in this 16-17 age group, were linked to the cuts.

Table 3. Summary of regression coefficients for the within-area change in CLA rates associated with a change in prevention spend, controlling for employment rates.

Annual change in the rate of children starting to be looked after the following year (per 100,000 children) for a £10 per child reduction in prevention spend, after controlling for local economic trends and regional child poverty			
Age group	Effect estimate	95% CI, lower	95% CI, upper
1-4	-0.04	-0.51	0.43
16-17	1.87	0.67	2.94
Sample size: 1,200 observations nested within 150 local authorities, across 8 timepoints			

Note. For full model output, see appendix 13.

Robustness tests results

Results of the robustness tests are shown in appendix 14. The negative control analyses reveal no association between negative controls and CLA rates, strengthening the causal case for the impact of age-relevant prevention spend on rates of 16–17-year-olds entering care. The regional level models show some slight differences. Most notably, in the regional model for 1–4-year-olds, a £10 cut to prevention spend was associated with an additional 2 per 100,000 young children entering care, though with confidence intervals spanning the null (95% CI 0 to 4). The regional model for 16–17-year-olds also showed a larger effect of prevention spend compared to the local authority level model. Controlling more effectively for child poverty may more clearly reveal the protective impact of prevention spend. However, aggregating up to the regional level may also introduce bias due to ecologic variation in the distribution of local authority effects, or compound the effect of unknown time-variant factors that vary markedly by region, for example social work culture or practice. Due to a small sample size, the regional-level models may also be underpowered to reliably estimate a small but important population effect (Button et al., 2013).

The model using total prevention spend per child as the exposure, intended to address the possible effects of differential expenditure recording practices, yielded similar findings: no apparent effect on younger children and a protective effect for the adolescents, though with a smaller estimated effect size. Given that a large proportion of the change in total prevention spend will have affected early years services, this is as expected. The Poisson regression models and models conditioning on child population corroborate my main findings of an association between changing spend and outcomes for older children aged 16-17, with no discernible effect

of spend on younger children. Models excluding outliers or London local authorities show a slightly increased protective effect of prevention spend for older children.

Discussion

Using data for the whole of England, this study exploits a natural policy experiment to investigate the association between spend and rates of children becoming looked after within local authorities. I found that between 2011 and 2019, across England, areas that experienced deeper cuts to prevention services for adolescents saw a greater increase in 16–17-year-olds becoming looked after the following year. I estimate that an additional 1,077 children aged 16-17 became looked after than would otherwise have been expected had 2011 levels of spend been sustained, at great cost to local authorities. In addition to causing avoidable harm to children and families, the cuts are unlikely to have represented a meaningful cost saving. Altogether, in the short-run, cuts to preventative services for adolescents totalling £57.7 million potentially resulted in corporate parenting costs of £60.2 million (95% CI 23.1 to 99.0). This estimate is based on local authorities' annual Children Looked After spend per child in care on 31st March, adjusted for inflation. It does not consider the higher cost of residential placements for many adolescents or the cost to Children's Services of supporting adolescents up to and beyond the age of 18, let alone the wider societal costs (HM Government, 2016). I found no association between changing prevention spend and children aged 1-4 becoming looked after in the main local authority-level model.

The finding of an association between cuts to services for adolescents and a rise in the rate of 16–17-year-olds becoming looked after is as expected. The withdrawal or hollowing out of services designed to promote young people's personal and social development, in a safe environment, within their communities, may increase vulnerability. The effects may be immediate, through sudden increased exposure to family or community risks; or gradual, through foregone opportunities: to develop trusting relationships with peers and adults; to use facilities and resources that may not otherwise be available to them; and to build confidence and resilience, life skills, hope for the future, and a positive sense of belonging (Chaskin, 2009; Davies, 2019). The loss of more targeted services, for young people with substance misuse or acute mental health issues, or who, through child criminal or sexual exploitation, have come into contact with the youth justice system, may increase the need for statutory intervention. Reduced service provision for young people may also affect the wider family, increasing family stress and so heightening young people's vulnerability through myriad pathways, including parental mental ill health, substance misuse and conflict. Older adolescents may be particularly vulnerable to cuts

to prevention spend in Children's Services, given their direct and cumulative exposure to other austerity effects: at the level of the household due to welfare changes and high youth unemployment (Tucker, 2017); in schools, through the loss of pastoral support for vulnerable students; in the health system, with Child and Adolescent Mental Health Services at capacity (Hood, Goldacre, Gorin, Bywaters, et al., 2020); and in the community as a result of a shrinking voluntary sector (G. Jones et al., 2016). My findings accord with a literature documenting concerning trends for adolescents in recent years, including rising rates of school absence, exclusion, violent youth crime, and lower educational attainment, particularly among the most deprived (Wallace & Khazbak, 2020). They parallel findings of an association between changing prevention spend at local area level and a less acute child welfare outcome - children beginning an episode of need (C. Webb, 2021b). They are also consistent with a wider public health literature on the potential health and inequalities gains of reinvestment in public services (Alexiou et al., 2021; Antonakakis and Collins, 2015; Barr et al., 2015). Reinvestment in prevention services for adolescents, after a decade of cuts disproportionately affecting more deprived areas, has the potential to prevent costly State interventions into the lives of 16-17 year olds that may go on to impair their health and wellbeing throughout adulthood (Meltzer et al., 2003; Viner & Taylor, 2005), while tackling increasingly dramatic inequalities in adolescents starting to be looked after (Bennett et al., 2020; Webb and Bywaters, 2018).

I did not detect an association between cuts to prevention services for families with young children and rates of these children becoming looked after. There are several possible explanations. At the service level, a preventative service may serve a dual protective function with divergent effects on the outcome of interest: on the one hand, preventing need from escalating, so contributing to lower CLA rates; and on the other, identifying acute child protection concerns, potentially increasing CLA rates – a recent study of the impact of enhanced early years services shows that, in less deprived areas, they are associated with higher intervention rates (Scourfield et al., 2021; C. Webb, Bywaters, Scourfield, Davidson, et al., 2020). At local authority level, therefore, the supply of early years services may only meaningfully affect CLA rates beyond a certain threshold of investment, when major barriers to access have been overcome, and unmet need has come to light. This threshold may not have been reached. The regional-level robustness test, in which I aggregate all data up to the regional level so as to more appropriately control for child poverty, lends some credence to the theory that rising need may be outstripping the supply of services. These robustness tests point to a greater protective impact of prevention spend, suggesting that the local authority level analysis may not sufficiently account for local trends in socioeconomic conditions: high need associated with changing

socioeconomic conditions may overwhelm the effect of spend in the main model. A further possibility is that, after years of spending cuts, surviving services are less effective, perhaps in some cases ineffective. Under conditions of resource scarcity, the quality of provision may suffer. Local authorities may be most likely to consolidate services, raising barriers to access, including travel time and costs. They may also be more likely to cut services offering 'ordinary help' for families getting by (practical relational or material support) (Featherstone, Gupta, Morris, & Warner, 2018; C. Webb, 2021b; White et al., 2014), in favour of more targeted services for families with complex and entrenched needs (behavioural, including therapeutic interventions). Families with young children may be less likely to engage with community services if they are seen as inviting scrutiny, surveillance, and social care involvement. Moreover, by their nature, increasingly targeted services may be less successful in stemming the flow of children into local authority care: so-called 'early' help may come too late (Hood, Goldacre, Gorin, Bywaters, et al., 2020). While short-term, targeted interventions that adopt an individualised medical or psychiatric model of health may evince improved child or parental health outcomes, particularly under experimental conditions, in practice this may not translate into reduced care entry (Thoburn et al., 2013), and may in fact impede family engagement and coping (Featherstone et al., 2014; White et al., 2014). This may result in counterproductive public health outcomes. Finally, the one-year time lag may be insufficient for detecting an impact of early years services on such an acute outcome.

In the longer term, there is abundant evidence that investment in high quality early years services, following a proportionate universalist approach, is likely to yield benefits throughout the life course (Cattan & Farquharson, 2019; Marmot et al., 2020; Sim et al., 2018; Waldfogel, 2004). Commissioning strategies for younger children could assume the more holistic social model of early help espoused in the social work literature (Featherstone, Gupta, Morris, & Warner, 2018), and, given the finding of a protective effect of services for adolescents, may look to the principles and practices of youth work with adolescents. This may require a shift in how we generate evidence of effective service design. Moving away from a singular reliance on randomised controlled trials, for example by leveraging natural experiments using local area data, as in this study, may strengthen the evidence base for a broader range of interventions. Natural policy experiments are increasingly used in the US to evaluate the impact of a variety of policies, including those aiming to provide support services to children and families (Cancian et al., 2013, 2017; McLaughlin, 2017, 2018; Raissian & Bullinger, 2017; Spencer et al., 2021). These methods may be usefully deployed in other contexts.

Meanwhile, tackling major drivers of need, such as child poverty, may be the most effective and cost-effective short-term strategy for safely reducing the rate of younger children entering care.

Strengths and limitations

This study has several limitations. Due to the lack of individual level data, I used an ecological area-level analysis, and cannot identify whether children entering care were directly affected by spending cuts. The association between changing prevention spend and CLA rates in the analysis may be due to trends in unobserved time-varying confounding factors that varied between local authorities. Despite wide variation in changes to prevention spend across local authorities, the allocation mechanism determining exposure status in this natural policy experiment does not approximate a randomization process: residual confounding is therefore possible, tempering causal claims (Vocht et al., 2020). However, the null findings of the negative control analyses offer reassurance that the main results are not unduly biased by residual confounding. The lack of reliable longitudinal child poverty estimates at local area level for the relevant time period was a limitation (Francis-Devine, 2020). I attempted to partially overcome this limitation by controlling for regional child poverty alongside local authority employment, and conducting robustness tests at regional area level.

A further limitation of the analysis is that the main exposure variable may not be strictly exogenous: the CLA rate at one point in time may affect prevention spend in the same year. Local authorities' statutory, corporate parental obligations towards Children Looked After mean that spend on these children is less flexible. If the rate of children entering care in a year largely determines the remaining funding available for prevention services, this may bias the analysis. I lagged exposure and control variables by one year, ensuring that exposure preceded outcome. However, I cannot specify the real-world causal lag with a high degree of certainty, and, since the models used are sensitive to the correct specification of temporal lags (Leszczensky & Wolbring, 2019), some bias may persist. One year is a plausible lag time for the effect of changing spend on preventative services for children and families, and can be accommodated without loss of data and statistical power.

A final limitation relates to the Section 251 returns. Data collected between 2009 and 2010 cannot be reconciled with data from later years and were therefore not considered (Department for Children Schools and Families, 2009; Department for Education, 2010). The restricted time period does not allow for an assessment of the pre-policy period, so precluded the possibility of using more robust methods for causal inference, such as regression discontinuity or difference in difference designs. The analytic approach nevertheless overcomes the limitation of the restricted

time period by exploiting the between-local authority variation in responses to spending cuts following the implementation of austerity policies. The time period is the relevant one for the analysis. Moreover, the plausibility of the protective effect of preventative services, together with the null findings of negative control analyses indicating the specificity of the impact of age-specific spend on particular age groups, are suggestive of a causal effect (Hill, 1965).

Although the financial data are broadly comparable from 2011, quality and consistency issues, particularly in the early years of the returns (Department for Education, 2012a; Freeman & Gill, 2014), led me to use broad categories of spend, rather than more granular data relating to specific services. Nevertheless, the potential for variation in the interpretation of spend categories longitudinally and between local authorities led me to conduct a robustness test using, as the exposure for both age groups, the cruder measure of total prevention spend per child (C. J. R. Webb & Bywaters, 2018). The findings allay concerns about measurement bias. The age-specific exposures remain broad, and may reflect a range of services, of varying quality. Process evaluations of social interventions and qualitative literature on the lived experiences of children and families foreground the quality of interpersonal relationships with programme staff, local community strengths and services, and good leadership (Meadows, 2007). From the data available, we cannot determine the nature or quality of prevention services within an area, nor trace their change over time. However, these data remain the best available national indicator of local authorities' commitment to delivering upstream support to children and families, and my findings demonstrate their importance for effective public health and children's social care policy. I echo others in urging governments to move towards accurate and comparable expenditure statements (Holmes, 2021). In the meantime, further qualitative work should explore the impact of funding cuts on Children's Services prevention strategies over the past decade, and the implications for quality, accessibility, and type of services available.

A strength of this analysis is the use of longitudinal methods that combine aspects of fixed and random effects models allowing me to control for time-invariant differences between areas and national trends affecting all areas equally. I was also able to control for important confounders, yielding estimates that, in combination with the null findings of the negative control analyses, may approach a causal estimate. I also investigate outcomes in relation to specific age groups of children, acknowledging and exploring the different risk environments and prevention services available at different stages of childhood. Ours is the first study to harness these methods to evaluate the natural experiment of changing preventative spend for Children Looked After specifically. My analytic approach is appropriate to an exploration of this most acute child welfare intervention, as thresholds for statutory intervention are less likely than other child

welfare outcomes to vary over time within an area. Other outcomes may require a different modelling approach (C. Webb, 2021b).

Implications for policy and practice

This study highlights the child welfare costs of the policy response in England to the 2008 recession. In this moment, in the midst of a pandemic and on the brink of another economic downturn, it is imperative that we learn from past decisions. Between 2011 and 2019, regressive cuts to local authority funding may have led to more young people becoming looked after, with far-reaching consequences for children and families, and for local authorities' financial health, in particular the most deprived. While underlying differences in child protection systems and local service delivery may limit the international relevance of this study, the English perspective can offer wider insights. I argue that preventative children's services, delivered by local government, can play a part in reducing rates of children in care. These findings may be of particular relevance in high-income settings where austerity measures have adversely impacted local government and Children's Services funding.

Prevention is better than cure. It is a tired idiom, but it has the virtue of being true. Strategies to safely and effectively reverse adverse trends in children looked after should mandate greater investment in upstream support for children, young people and their families. The costs of state care are astronomical, and outcomes for these children in adulthood are poor. Further cuts, or a failure to reinvest in preventative services for adolescents, may contribute to a consolidation of the spiralling costs and child-removal practices in England today. Currently, through determined effort, individual policymakers may choose to 'hold their nerve' on prevention (The Association of Directors of Children's Services Ltd, 2018). But the survival of these services should not depend on individual local policymakers' conviction and resolve. National government policies must bolster, not undermine, local governments' ability to deliver statutory early help and family support – a key recommendation of the 2011 Munro report and a familiar refrain amongst local policymakers, long overlooked (Munro, 2011). A strengthened statutory safety net could lead to a systemic shift in the approach to prevention in Children's Social Care. This would require sustained central government funding of local government Children's Services, proportional to the level of need, and attention to the social determinants of health and child welfare inequalities. The long-term benefits to children, families, and society of these policy measures are likely to be immense.

Chapter 4: Study 3 – Child poverty and children entering care: a longitudinal ecological study at local area-level in England, 2015-2020.

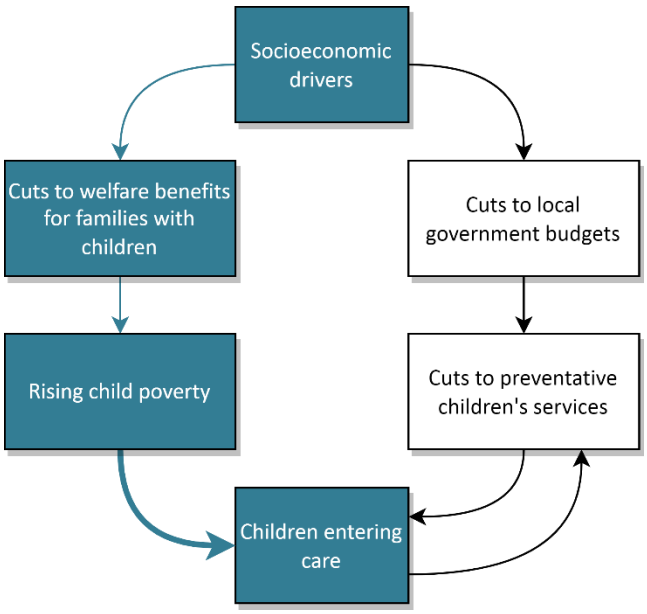
Study 3 was first published as:

Bennett, D. L., Schlüter, D. K., Melis, G., Bywaters, P., Alexiou, A., Barr, B., Wickham, S., & Taylor-Robinson, D. (2022). Child poverty and children entering care in England, 2015–20: a longitudinal ecological study at the local area level. *The Lancet Public Health*, *7*(6), e496–e503. https://doi.org/10.1016/s2468-2667(22)00065-2

Commentary on study 3

Study 1 exposed the widening inequalities in care entry in England and theorised that unequal cuts to preventative children's services and welfare benefits may have played a part. Study 2 tested the former hypothesis. Study 3 tests the latter (figure 13). It uses longitudinal, local authority-level data on the proportion of children in low-income families, and within-between regression models, controlling for employment trends, to assess the contribution of trends in child poverty to trends in care entry. Study 3 contributes to a growing body of international research into the relationship between poor socioeconomic conditions and out of home care, and it fills an important gap in the UK evidence base.

Figure 13. Logic model of the theorised impact of austerity policies on care entry. Study 3 addresses the pathway in turquoise.



Abstract

Background. Children in care face adverse health outcomes through the life-course, relative to their peers. In England, over the past decade, the stark rise in their number has coincided with rising child poverty, a risk factor for children entering care. My aim in this study was to assess the contribution of recent trends in child poverty to trends in care entry.

Methods. In this longitudinal ecological study of 147 local authorities between 2015 and 2020, I linked data from the Department for Work and Pensions and HM Revenue & Customs on the proportion of children under 16 living in families with income less than 60% median income, with Department for Education data on rates of children under 16 entering care. Using within-between regression models, and controlling for employment trends, I estimated the contribution of changing child poverty rates to changing care entry rates within areas.

Findings. Between 2015 and 2020 and controlling for employment rates, a 1 percentage point increase in child poverty was associated with 5 additional children entering care per 100,000 [95% CI 2–8]. I estimate that, over the study period, 8.1% [95% CI 5.0%–11.3%] of care entries were linked to rising child poverty, equivalent to 10,351 [95% CI 6,447–14,567] additional children.

Interpretation. This study offers evidence that rising child poverty rates are contributing to an increase in children entering care. Children's exposure to poverty creates and compounds adversity, driving poor health and social outcomes in later life. National anti-poverty policies are key to tackling adverse trends in care entry in England.

Introduction

There has been a steep rise in the rate of children in State care in England, from a low of 53 per 10,000 in 2008, to 67 per 10,000 in 2020 – a rise of 26% (Department for Education, 2021c). Widespread recognition of the poor health and social outcomes for these children (Murray et al., 2020a), together with concerns about the long-term financial health of local authorities entrusted with their care (Harris et al., 2019), have precipitated research into likely drivers of the rise (Bilson & Martin, 2017). Child poverty emerges as a key risk factor for children entering care. Analysis of trends in care entry in England show that the sharp rise in rates between 2008 and 2018 was greater in poorer areas, increasing inequalities (D. L. Bennett et al., 2020). This raises important questions about the role of changing socioeconomic conditions (SECs) in shaping care entry.

Over the past two decades, across the UK, child poverty rates have fallen and risen again (appendix 15). At the turn of the millennium, a national government pledge to end child poverty by 2020 galvanised anti-poverty efforts (Taylor-Robinson & Bennett, 2020). Changes to the tax and welfare benefit system, and the introduction of a national minimum wage, affected, in particular, families with children (Taylor-Robinson & Bennett, 2020). Between 1998 and 2005, the percentage of children in relative poverty – living in households earning below 60% of the median income – declined from 27% to 21%, with a smaller dip between 2008 and 2014, from 22% to 18%. The latter dip was largely driven by a fall in median incomes as a result of the 2008 recession, rather than rising incomes for the least well-off (Department for Work and Pensions, 2020). But the recession paved the way for a vastly altered policy landscape. Child poverty targets were abandoned. Income-based child poverty data narrowly survived a move to end their collection (Child Poverty Action Group, 2016). At the same time, between 2011 and 2018, 57 separate changes and cuts to welfare benefits restricted their generosity and eligibility, disproportionately affecting families with children (Tucker, 2017). These cuts were subsequently folded into universal credit, with its added constraints (Tucker, 2017). From 2014, child poverty rates began to rise and in 2020 reached 23%; after housing costs, this rises to 31% (Department for Work and Pensions, 2021b).

While the rising national child poverty rate is well documented, the geographical pattern of the change is less well understood. New small-area income-based child poverty data were recently given official status (Department for Work and Pensions, n.d.). Published by the Department for Work and Pensions (DWP) and HM Revenue & Customs (HMRC) and spanning five years from 2015 to 2020, they offer reliable estimates of child poverty at local authority level, and highlight

the vast inequalities across England. In 2020, before housing costs, Middlesbrough was contending child poverty rates of 39%, compared with 7% in Richmond Upon Thames (Department for Work and Pensions, n.d.).

Inequalities in child poverty may beget inequalities in children's wellbeing and child protection outcomes. There is strong evidence of an association between adverse SECs and childhood adversities, including abuse and neglect and subsequent care entry (Bywaters, Bunting, et al., 2016). Bywaters et al.'s 2016 evidence review characterises poverty as a contributory causal factor in the aetiology of child abuse and neglect (Bywaters, Bunting, et al., 2016). There is growing evidence from the US that raising the income of families in poverty leads to a reduction in reported or substantiated child maltreatment rates (Bywaters, Bunting, et al., 2016; Raissian & Bullinger, 2017). Internationally, qualitative research sheds light on how poverty may create need and draw child protection concerns (K. Bennett et al., 2020). Taken by itself, however, the UK evidence is less robust (Bywaters, Bunting, et al., 2016). Although many UK studies report a link between SECs and child protection intervention rates, poor quality routine data, limited statistical analyses and the dearth of more up-to-date studies, may obscure the strength of the broader evidence base, and hinder policy action (Bywaters, Bunting, et al., 2016).

The differential rise in child poverty across England as a consequence of changing welfare policies opens up the possibility of evaluating the impact on vulnerable children, and the places where they live, as a natural policy experiment. My aim in this study is to assess the relationship between child poverty and care entry. A secondary aim is to assess the relationship between child poverty and progressively less acute statutory interventions: children made subject to a child protection plan, considered to be suffering, or likely to suffer, significant harm; and children beginning an episode of need, deemed unlikely to achieve or maintain a reasonable standard of health and development without local authority support (*Children Act 1989*, 1989). Child-in-need interventions are, in theory, the least intrusive, least investigation-oriented statutory intervention.

Methods

Data sources and measures

I conducted a longitudinal study at local authority level in England using panel data from 147 English upper-tier local authorities between 2015 and 2020 – I refer to the financial year (April to March) by the latter year throughout. These data take us to the very brink of the first UK lockdown (March 2020) and are unaffected by the changes that followed. Four local authorities were excluded from the analyses: the City of London and the Isles of Scilly due to their small

population size; Bournemouth, Christchurch and Poole, and Dorset, due to boundary changes that could not be reconciled across years.

The primary outcome was the annual rate of children under the age of 16 starting to be looked after by local authorities in England (CLA rate). I considered care entry rates, rather than overall care rates, because this outcome is likely to be more sensitive to changes at the level of underlying need. The total numbers of children looked after each year will be a function of numbers entering care and the length of time children remain in care. The former is more likely to be influenced by population-wide socioeconomic trends, the latter by a wider range of factors, including service-related factors affecting permanency planning for children. Data were sourced from the 'children looked after data return' (Department for Education, 2021c). For reasons of confidentiality, counts between one and five inclusive were suppressed in these data. I therefore randomly imputed an integer in this range (appendix 16).

Secondary outcomes included: the annual rate of children under the age of 16 subjected to a child protection plan (CPP rate), and beginning an episode of need (CIN rate), supplied by the Department for Education following Freedom of Information Requests (Department for Education, 2019, 2020, 2021a). Estimates for the total population of children under the age of 16 were derived from Office for National Statistics (ONS) mid-year population estimates (Office for National Statistics, 2020).

The main exposure was the proportion of children under the age of 16 living in families with income less than 60% of the contemporary national median income, before housing costs (Department for Work and Pensions, n.d.). I used new Children in Low Income Families (CiLIF) statistics, compiled jointly by DWP and HMRC using tax, tax credit and benefits data. Previous estimates of local child poverty rates were either based on household income surveys with insufficient sample sizes for small areas, or produced by HMRC alone using family tax credit and benefits data. These latter data were considered increasingly unreliable: they tended to over-estimate out-of-work and under-estimate in-work poverty, were incompatible with official Households Below Average Income (HBAI) survey estimates at national level, and failed to account for the roll-out of Universal Credit (Department for Work and Pensions, 2021a). By contrast the new CiLIF statistics reflect individual family level income sources, are calibrated to HBAI estimates at regional level and by work status, and cover Universal Credit claimants transitioning from tax credits. Further details of the methods can be found on the DWP website (Department for Work and Pensions, 2021a). In brief, children are identified from HMRC Child Benefit scans. Income is defined as gross personal income from welfare benefits, tax credits,

employment, self-employment, or occupational pension, and is equivalised at household level, adjusting for household size and composition, taking an adult couple without children as the reference (Department for Work and Pensions, n.d.; Hirsch & Stone, 2020).

In analyses, I controlled for trends in employment using Labour Force Survey data on local authority-level employment rates for the working age population between 2015 and 2020 (Office for National Statistics, 2021a).

Statistical analyses

I first used scatter plots to visualise, within each local authority, the association between the absolute change in the child poverty rate, and the absolute change in the CLA rate, between 2015 and 2020. To visually assess the distribution of changes across England, I mapped changes in exposure and outcome.

Using linear within-between regression models – hybrid models that retain the strengths of both traditional random and fixed effects approaches – I then estimated the association between child poverty and CLA rate within areas (for model formula, see appendix 17). In the estimation of within-area effects, these models allow me to control for time-invariant differences between areas, and national trends affecting all areas equally; I accounted for the correlation of observations within areas by including random intercepts (Dieleman & Templin, 2014). The within-area estimate is equivalent to the estimate derived in a fixed effects framework. The between-area estimates offer additional contextual information on the association between exposure and outcome across areas. I controlled for employment rates, a potential confounder of the association between exposure and outcome. The final model was used to estimate the contribution of trends in child poverty to trends in CLA rates. To gauge the practical significance of this contribution, I estimated the marginal difference between observed trends in CLA rates, and trends that might have been expected had child poverty rates from 2015 remained stable, employment trends unaltered. I estimated the financial costs associated with this difference (appendix 18), and undertook a comparison of within and between-area effects.

The analysis was repeated for each of the secondary outcomes, CPP and CIN rates. I also conducted robustness tests: using alternative measures of the exposure; fitting Poisson models as an alternative modelling approach; controlling for the child population and (1/child population) to assess the possibility of bias due to mathematical coupling (Tennant, 2023a); excluding each high leverage observation in turn; and controlling for the additional potential confounder of local

authority spend per child on preventative children's services (appendix 19). All models were estimated using the "lme4" package, in R version 4.0.1. (Bates et al., 2015).

Results

Summary statistics are presented in appendix 20. My exploratory scatter plots in figure 14 show positive associations between the change in the proportion of children living in relative poverty before housing costs, and the change in each of my outcomes, within local authorities, between 2015 and 2020. The association with child poverty appears more pronounced for children being made subject to a child protection plan. The plots reveal three observations with particularly large change scores. One local authority, Middlesbrough, saw a rise in child poverty of 14.9 percentage points over the period. Hartlepool and Redcar and Cleveland saw an unusually steep rise in rates of care entry and children being made subject to a child protection plan, respectively (appendix 21).

The maps in figure 15 illustrate the geographical distribution of changes in child poverty and care entry rates over the time period. They highlight a double burden of rising rates in the North-East of England, but also in parts of the North-West, the Midlands, and some coastal areas.

Figure 14. Associations between the change in the child poverty rate between 2015 and 2020, and intervention rates for each of the outcomes between 2015 and 2020, in each LA, with 95% confidence intervals.

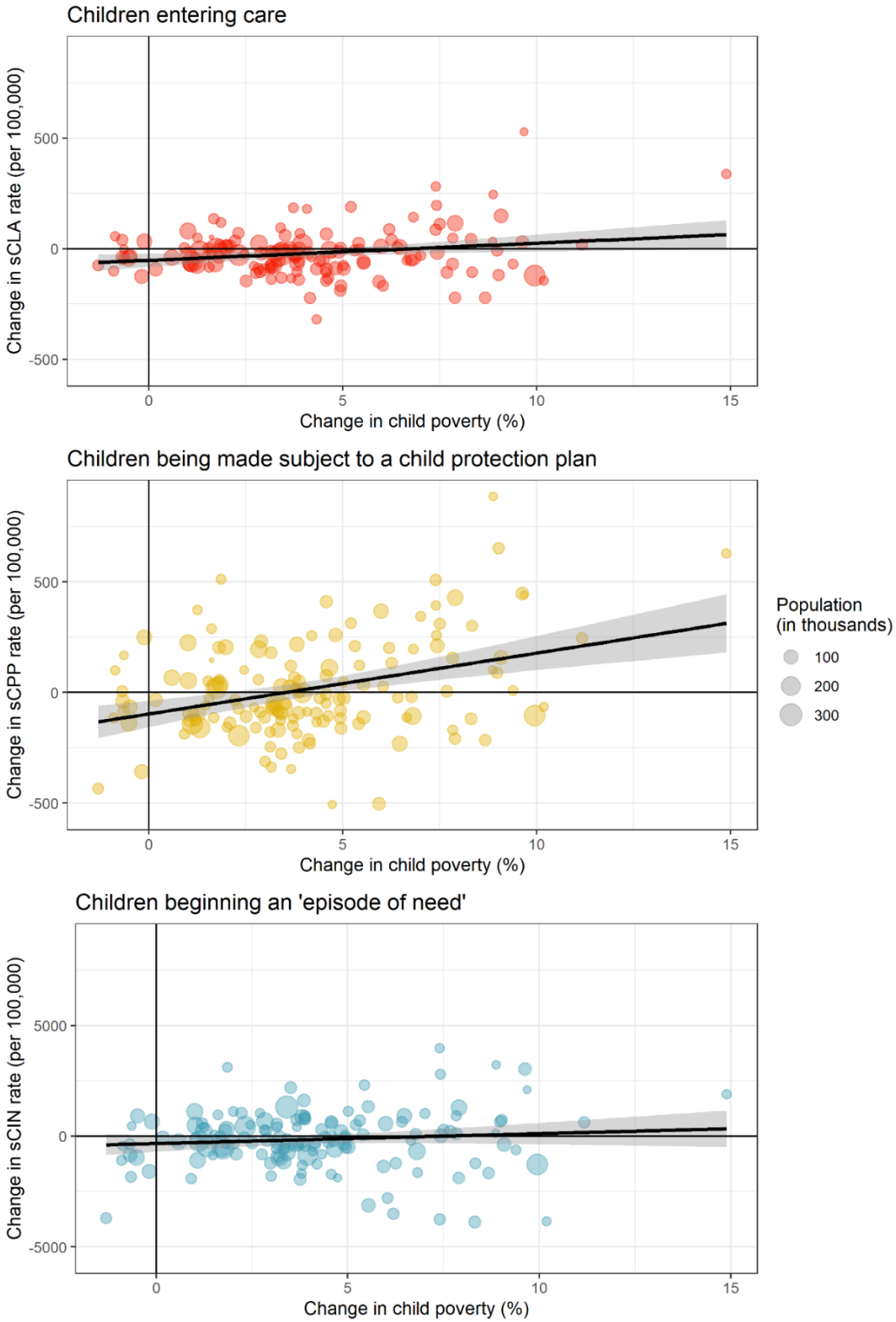
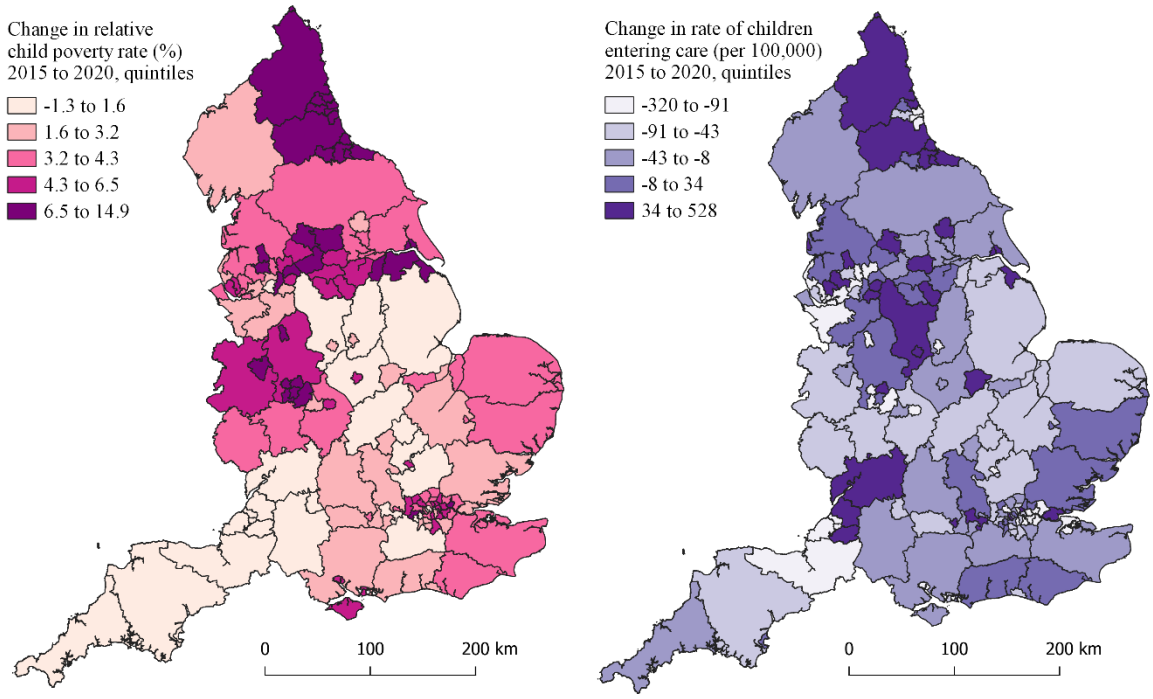


Figure 15. Maps of England showing the change in the relative child poverty rate before housing costs, and the change in care entry rates, between 2015 and 2020.



Note. Data for local authorities City of London, Isles of Scilly, Dorset, and Bournemouth, Christchurch and Poole are not shown.

The models affirm these findings – model estimates are summarised in tables 4 and 5 (for full model output see appendix 22). The main model shows that, between 2015 and 2020, within English local authorities and after controlling for employment rates, a 1 percentage point increase in the child poverty rate was associated with an additional 5 per 100,000 children entering care in the same year [95% CI 2–8]. I estimate that 10,351 additional children became looked after over the time period than would have been expected had 2015 child poverty levels remained constant [95% CI 6,447–14,567]. This is equivalent to 8.1% of the total number of children under the age of 16 entering care over the period [95% CI 5.0%–11.3%], at an estimated cost of £1.4 billion [95% CI £0.8–£2.0].

Table 4. Summary of regression coefficients for the within-area change in the primary and secondary outcomes associated with a change in the child poverty rate, controlling for employment rates; and change in the number of children experiencing each outcome associated with the rise in child poverty, 2015-20, employment trends unaltered.

	Annual change in the rate per 100,000 for a 1 percentage point increase in child poverty, controlling for employment rates [95% CI]	**Estimated additional number of children associated with rising child poverty rates, 2015-20, employment trends unaltered [95% CI]**
Children starting to be looked after	5.2 [2.2, 8.3]	10,351 [6,447,14,567]
Children made subject to a child protection plan	19.3 [12.4, 26.3]	22,945 [15,103, 31,361]
Children beginning an episode of need	52.2 [13.6, 90.8]	51,736 [15,352–89,021]

Note. For full model output, see appendix 22.

Identical models for the secondary outcomes show that, over the same time period, a 1 percentage point increase in the child poverty rate was associated with rising intervention rates across the board: an additional 19 per 100,000 children made subject to a child protection plan [95% CI 12–26]; and an additional 52 per 100,000 children beginning an episode of need [14–91], controlling for employment rates. I estimate that, between 2015 and 2020, 7.5% of all new child protection plans [95% 5.0%–10.3% CI] and 3.2% [95% CI 1.0%–5.5%] of new episodes of need, were due to the rise in child poverty from 2015.

Table 5. Summary of regression coefficients for the within and between-area change in the primary and secondary outcomes associated with a change in the child poverty rate, controlling for employment rates.

	Within-LA effects Annual change in the rate per 100,000 for a 1 percentage point increase in child poverty, controlling for employment rates [95% CI] (β_1^w)	**Between-LA effects** Mean change in the rate per 100,000 for a 1 percentage point increase in average child poverty rates between LAs, controlling for employment rates [95% CI] (β_1^b)
Children starting to be looked after	5.2 [2.2, 8.3]	8.9 [4.9, 12.8]
Children made subject to a child protection plan	19.3 [12.4, 26.3]	18.0 [10.2, 25.8]
Children beginning an episode of need	52.2 [13.6, 90.8]	38.8 [3.4, 74.3]

Note. For full model output, see appendix 22.

Table 5 presents both the within and between-area estimates of the hybrid models. The estimates are congruent: across all outcomes, the association with child poverty was evident across time and place, both within local authorities over time, and between local authorities on average.

The results of the robustness tests validate the main findings (appendix 23). For the two more acute outcomes, care entry and child protection plan initiation, the association with poverty was robust to the specification of poverty type. For the less acute child in need intervention however, the use of after-housing-cost child poverty data nullified the within-area association; findings for this outcome are therefore more tentative. The Poisson models yielded comparable results to the main linear models, and highlight the greater relative increase in children beginning a child

protection plan relative to the other outcomes, controlling for employment rates. Additionally conditioning on the child population upheld our main findings, though with slight attenuation of some point estimates. Rerunning the analyses, removing, in turn, each observation that may be influential, led to slightly attenuated point estimates in some cases, but did not meaningfully change my inferences. Controlling for the additional potential confounder of local authority prevention spend did not alter the findings.

Discussion

Between 2015 and 2020, across England, after controlling for employment rates, local authorities that saw a greater rise in child poverty experienced greater increases in the rate of children entering care, the most drastic State intervention into the lives of children and families. These same local authorities also experienced greater increases in rates of children becoming subject to a child protection plan and beginning an episode of need. The changes are substantive. I estimate that the rise in child poverty from 2015, largely the consequence of cuts to welfare benefits (Tucker, 2017), was associated with an additional 10,351 children entering care; 22,945 children being placed on a child protection plan, and 51,736 children beginning an episode of need, between 2015 and 2020. These increases have disproportionately affected more deprived local authorities less able to manage them, deepening inequalities. The congruent within- and between- area estimates might be considered to strengthen confidence in the findings. They suggest that, beyond the study period, deep, longstanding inequalities in intervention rates across the country may be largely attributable to enduring differences in child poverty rates. This bears further investigation using linked, individual-level data.

This analysis adds to growing quantitative evidence of the contributory causal nature of the relationship between child poverty and children's social care involvement, much of it from the US (Bywaters, Bunting, et al., 2016). Notwithstanding the different country contexts, my findings echo US ecological area-level analyses of the association between changing economic indicators and substantiated maltreatment incidents (Coulton et al., 2007). They are consistent with quasi-experimental evidence showing the impact of exogenous shocks to household income on a range of child welfare outcomes (Berger et al., 2017; McLaughlin, 2017; Yang, 2015). Currently, few datasets allow linkage of data on income and children looked after at individual level. The Danish DANLIFE cohort is an example of such linkage, and shows higher rates of foster care in families with low SECs, at individual level (Bengtsson et al., 2019). Comparable data linkage efforts are currently underway in the UK and elsewhere.

Intentional or incidental, policies that move children into poverty may trigger cascading inequalities through child protection systems and beyond, as poverty clusters with the very childhood adversities it produces (Adjei et al., 2021), giving rise to further inequalities in health, life and death (Murray et al., 2020a), This in turn has consequences for the most deprived places and communities. Places that experience the double-burden of increased child poverty and numbers of children requiring intervention must shoulder the wider societal costs of children's impaired life-chances, in education, physical and mental health, criminal justice, and economic contexts (Bywaters, Bunting, et al., 2016). Given the widening scope of children's services activity in England – of the cohort of children born in 2010, more than one in five were referred to children's services before the age of five (Bilson & Martin, 2017b) – the magnitude of this public health challenge is likely to be vast.

In the shorter-term, the huge costs to the local authority of caring for these children, entail opportunity costs within and beyond Children's Services. Central government funding to local authorities was £29 billion lower in 2020 than in 2010, equivalent to a 77% fall in revenues per person. Budgets are finite and increasingly devoted to acute social care services (Harris et al., 2019). Waning local authority investment in other place-based public services that promote health and wellbeing may further deepen geographical inequalities, impeding the UK Government's bid to 'level-up' places that have historically been 'left behind', as part of the pandemic recovery effort (Alexiou, Barr, et al., 2021).

The mechanisms by which income affects social care outcomes are increasingly clear. Explanatory models such as the family stress, investment and social models, describe how poverty may affect children directly, through material hardship, and indirectly, through the effect on family functioning (Bywaters, Bunting, et al., 2016). Although the supply of child protection services may play a part in producing and replicating inequalities, there is strong evidence that poverty acts at the level of underlying need (Bywaters, Bunting, et al., 2016). A 2020 systematic review of the impact of household income on children's outcomes in OECD countries identifies concrete evidence for a number of theorised causal pathways: a positive causal effect of income on known risk factors for child protection interventions, including maternal mental health, parenting, and home environment (Cooper & Stewart, 2021). These findings affirm the plausibility of causal models for the impact of poverty on care entry (Bywaters, Bunting, et al., 2016). Moreover, the authors of the review note the larger effect sizes in experimental and quasi-experimental compared to fixed effects approaches, suggesting that my own findings may well be conservative.

To my knowledge, this is the first study in England to assess the relationship between child poverty and statutory child welfare interventions using longitudinal within-between models, and data for the whole of England. It was made possible by the recent publication of higher-quality local authority-level, official child poverty data, spanning five years to 2020. They improve on previous local area estimates of child poverty by pooling data from the DWP and HMRC to capture both in and out-of-work poverty.

The study has several limitations. First, the lack of individual-level data on the SECs of child welfare-involved families led me to use an ecological design, and I cannot tease apart phenomena at the levels of the individual, household and wider community. The focus on aggregate effects nevertheless reflects the need for place-based approaches to reducing health inequalities.

Second, the new child poverty data were only available for a five-year timespan. My analytic approach makes use of the variation in exposure between areas to assess the contribution to changing intervention rates within areas, and the time period is therefore appropriate. However, the analysis should be repeated as more data become available.

Third, the within-between models may be subject to residual confounding by omitted time-varying variables that affect both exposure and outcome; I was also unable to consider causal lags without substantial loss of power. However, there are few time-varying variables likely to affect both area-level child poverty and care entry that are not also likely to be important mediators of the relationship of interest. This consideration, in combination with the strength of the associations; the consistency of within and between-area estimates, and of my estimates with the international literature; and the plausibility of the relationship given the known impact of child poverty on family-level risk factors for care entry, are suggestive of a causal effect (Hill, 1965).

Finally, the data have shortcomings. I used the best available UK estimates, which capture families' main income streams. However, the child poverty data measure gross, rather than net income, and excludes some kinds of income, as with income from investments. Moreover, in child poverty statistics, a young person aged 16 to 19 is considered a child if they are in full time, non-advanced education. Not all children are counted. Changes to eligibility criteria for child tax credits mean that the relevant denominator cannot be accurately specified. As a result, ONS mid-year population estimates are now used to derive a child poverty rate, dictating the pragmatic exclusion of children over the age of 15. I have constrained the age range of the outcomes accordingly, excluding from our purview a group of children who represent an increasing proportion of children entering care (D. L. Bennett et al., 2020).

These results have significant policy implications. Currently, despite the importance of child poverty as a risk factor for becoming looked after, there remain obstacles to its recognition. Research into the place of poverty in UK practice identifies both social workers' reluctance to stigmatise poverty by making the link with child maltreatment, and, counter-intuitively, the persistence of an underclass discourse that is itself stigmatising (Morris et al., 2018). Describing poverty as the "wallpaper of practice: too big to tackle and too familiar to notice", Morris et al. advocate the use of poverty-aware social work paradigms (Morris et al., 2018, p. 370).

My findings complement this assessment. For the two more acute outcomes, care entry and child protection plan initiation, the association with child poverty was evident regardless of the measure of child poverty used, indicating that support needs tied to changing SECs are reliably met with the most intrusive interventions. However, for the less acute child-in-need status, robustness tests were less conclusive. Changing SECs do not as reliably or consistently presage more upstream, family-oriented interventions. Children's needs are likely to increase with increasing child poverty. But the provision of 'child in need' services may not. This raises concerns voiced elsewhere about an underfunded, risk-averse child protection system, increasingly focussed on acute, investigatory statutory interventions at the expense of prevention and family support (C. J. R. Webb & Bywaters, 2018). It underscores the need for an approach to child protection that explicitly addresses the SECs of families' lives.

There are emerging signs of a paradigm shift across the UK – efforts to 'strip the wallpaper of practice' (McCartan et al., 2018). Local area policymakers may redouble these efforts by embedding poverty-informed policies in Children's Services and multiagency partnerships. However, and particularly in the context of constrained resources and decision-making environments in local authorities, shifting population-level exposure to the risk factor of child poverty requires a national policy effort.

At national level, there has been a tendency to obscure the reality of trends in child poverty, and a reluctance to acknowledge the relationship between poverty and care entry. The word 'poverty' does not appear in the Department for Education's 2016 strategy for children's social care or other key reports (Department for Education, 2016; National Audit Office, 2019, 2016). These reports acknowledge a correlation between deprivation and use of child protection interventions but go no further. This study presents clear evidence that rising child poverty is likely fuelling care entry and other statutory interventions. National efforts to reverse adverse trends in care entry, interrupt spiralling 'corporate parenting' costs, and reduce inequalities, should prioritise poverty alleviation. Policymakers might begin by setting ambitious, achievable child poverty

targets. Increasing the generosity of welfare support to families with children would likely have a rapid and lasting impact. In the UK, restoring the £20 universal credit uplift (appendix 18); extending the same uplift to those on legacy benefits; and reversing cuts to welfare benefits, including the two-child limit and lowered benefit cap, would lift millions of children out of poverty (Tucker, 2017). These policy proposals would dovetail with the UK Government's own 'levelling-up' post-pandemic recovery agenda, disproportionately benefitting the most deprived communities. Meanwhile, increasing funding to local authorities would support a shift away from reactive, acute intervention, towards preventive support. Although the analysis presents a grim picture, child poverty is a modifiable risk factor for care entry, highly amenable to policy intervention – where there is political will.

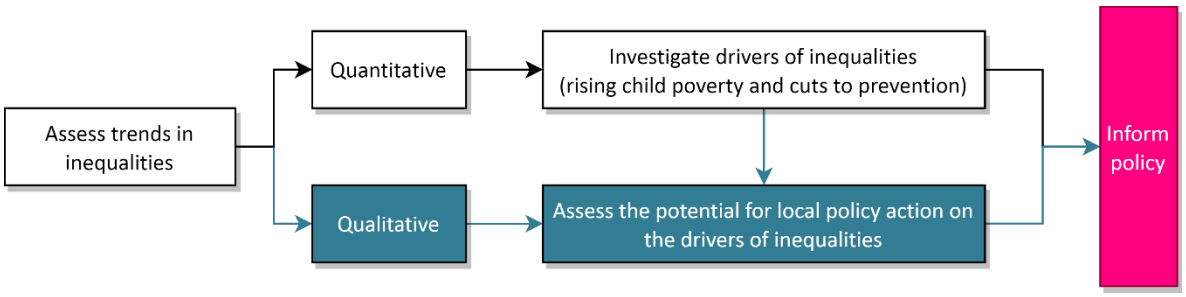
Chapter 5: Study 4 – Narratives of change in children's services: a qualitative study of action on the socioeconomic determinants of care entry

Study 4 is not yet in submission. A triptych of papers is in preparation. Early findings of the research were presented at the 2022 Society for Social Medicine and Population Health Conference. The conference abstract was published as follows:
Bennett, D., Barr, B., & Taylor-Robinson, D. (2022). OP37 Narratives of change in children's services: a qualitative study of action on the socioeconomic determinants of care entry. *Journal of Epidemiology and Community Health*, *76*(Suppl 1), A18 LP-A18. https://doi.org/10.1136/jech-2022-SSMabstracts.37

Commentary on study 4

Studies 2 and 3 indicated that more, and more equitable, funding for prevention, and anti-poverty policies, could safely reduce care entry while reducing inequalities. But to make their mark on children's services, policy recommendations must be attuned to the local decision-making context. In study 4, I explore this context. I take the second path of the research roadmap, shown in figure 16, in turquoise. In virtual qualitative interviews with policymakers, I elicit narratives of change in Children's Services. Using thematic analysis, then applying a policy analysis framework, I assess the status of poverty and prevention, the 'socioeconomic drivers' of care entry, on the policy agenda. Due to the scope and breadth of this analysis, in this chapter I present select findings pertaining to problem-definition: how these drivers may come to be defined as problems appropriate for policy action.

Figure 16. Research roadmap. Study 4 takes the path indicated in turquoise, exploring the local policy context for action on the drivers of inequalities.



Abstract

Background. Tackling the unsustainable rise in children in out-of-home care is a policy priority in England. There is growing evidence that adverse socioeconomic conditions, including rising child poverty and declining local authority investment in preventative children's services, are important drivers of children entering care. Less is known about the status, in local policy, of these drivers. My aim in this study was to elicit local authority policymakers' understanding of the challenges in Children's Services over the past decade, and assess how the socioeconomic drivers of care entry are considered in decision making.

Methods. Remote, individual, semi-structured interviews were conducted with 15 policymakers across 6 local authority Children's Services departments in England. Purposive sampling guided recruitment of local authorities heterogeneous with respect to trends in care entry and deprivation levels. Within local authorities, snowball sampling was used to reach relevant policymakers. Interviews were recorded, transcribed, and subjected to thematic coding in NVivo. A framework derived from Kingdon's conceptual model of the policy process guided the grouping of codes, focussing the analysis on problem definition, specifically participants' consideration of the socioeconomic drivers of care entry.

Results. The number of children in care or entering care was a powerful, widely respected indicator of a major problem. Participants consistently theorised that rising care rates and inequalities were linked to austerity-driven cuts to preventative services. They believed in prevention. Yet 'prevention spend' was a weaker indicator. Instead, the finance indicator of note was 'acute costs averted', reflecting local authorities' statutory duties and pursuit of short-term cost savings – occasionally with a longer-term view to gradually shifting the distribution of spend to more proportionate universalist services. Participants raised the problem of poverty in relation to care entry. But they also steered elaborately clear of causal language, preferring to speak of static associations with area-based deprivation than change within areas over time, and subsuming 'poverty' in an undifferentiated list of more proximal risk factors. Strategic comparison with places deemed good or outstanding by Ofsted foregrounded the need for investment in prevention. Defensive comparison on the basis deprivation could prove counterproductive: deprivation was foregrounded only to be relegated to the background. Finally, the great crises in children's services tend to derail or complicate efforts to address socioeconomic inequalities in care entry.

Conclusion. I identify major challenges to the consideration of policies tackling the socioeconomic drivers of care entry, rooted in the problem stream – as well as opportunities for stronger, crisis-proof problem definition.

Background

Children in care in England

Between 31st March 2008 and 2022, England saw a 38% increase in the number of children in care, to 82,170 (Author's analysis of DfE, 2022). The steep, sustained, fourteen-year-long rise is of public health concern. Relative to their peers, children looked after by the State fare worse, throughout the lifecourse, in the domains of mental and physical health, offending, education, employment and income (D. Simkiss, 2012). They are more likely to die early. Up to 42 years after initial care assessment, care-experienced adults in England experienced higher mortality risk, and a higher risk for more recent assessments (Murray et al., 2020a). Given the drastic nature of state interventions separating children from their families, improving their outcomes is a public health and ethical imperative.

Reducing the economic burden associated with children in care is a priority for policymakers: supporting these children represents a major expenditure at local authority level (L. Jones et al., 2020). Across England, between 2009 and 2019, expenditure on children in care increased by £2.6bn in real terms, to £4.9bn (University of Liverpool, 2021). These cost pressures are building into a crisis in local government finance, forcing cuts to preventative services across local authority departments, including Children's Services and Public Health (D. L. Bennett et al., 2021; Stokes et al., 2022; C. J. Webb et al., 2022; C. J. R. Webb & Bywaters, 2018). In 2020, more than eight in ten councils were forced to overspend their budgets to ensure children's safety (Local Government Association, 2021a). The wider societal costs of looked after children, through impaired wellbeing, reduced productivity, and increased use of public services, are estimated at £9bn annually (Alma Economics, 2021). There is an urgent need for a preventative approach to care entry that would identify and tackle modifiable risk factors for child maltreatment.

Approaches to prevention

Internationally, there have been longstanding calls for a public health, primary preventative approach to child maltreatment (Bethea, 1999), and, by extension, children in care. Primary prevention would encompass universal or proportionate universalist (Marmot, 2010) measures to reduce population-level exposure to risk factors for children's adversity. Although some level of

risk stratification may be involved, primary prevention would seek to prevent harm before it occurs. Where a child has experienced maltreatment, or a clustering of risk factors in a family suggests that a child is likely to experience harm, secondary prevention strategies would aim to reduce the risk of occurrence or recurrence by targeting interventions to these families. Tertiary prevention would seek to reduce the negative consequences of maltreatment (MacMillan et al., 2009), and may involve a greater degree of coercion in the delivery of intensive interventions, or care and support for the child outside the family home. Although the categories are not always mutually exclusive – particularly in a children's services context, given the complex and often hidden nature of children's adversity – primary prevention strategies may benefit all children (R. Gilbert et al., 2012). These might include family friendly policies that help combat child poverty and family stress, wide availability of family support services, and a strengthening of children's rights that precipitates a shift in social norms (R. Gilbert et al., 2012).

Until recently, however, research efforts have largely emphasised more proximal child, parent and family-level characteristics associated with children's adversity (Stith et al., 2009), obscuring the 'causes of the causes' (Marmot, 2005; Walsh et al., 2019). Resulting recommendations tend to be narrowly aimed at frontline practitioners (Stith et al., 2009). Research into preventative services has largely meant evaluations of the effectiveness, under experimental conditions, of targeted, acute interventions for parents with complex needs (Mikton & Butchart, 2009) rather than services and interventions aiming to prevent these needs from emerging (Courtin et al., 2019; C. Webb, 2021b), stacking the evidence in favour of secondary or tertiary prevention. In a 2007 paper on the major gaps in evidence on primary prevention of maltreatment, poverty is cited as a highly prevalent neglected risk factor (Klevens & Whitaker, 2007).

Over the last decade, in England, the research lens has widened and refocussed on the social and structural determinants of care entry. The Child Welfare Inequalities Project exposed a steep social gradient in child welfare interventions, including care status. In 2015, children living in the most deprived decile of neighbourhoods were over ten times more likely to be in care than children in the least deprived decile (Bywaters et al., 2018). This revelation launched a policy and research agenda for child welfare inequalities, explicitly aiming to emulate progress in the more mature field of health inequalities (Bywaters, 2015). Research conforming to this agenda revealed rising socioeconomic inequalities in care entry from 2009, relative to the previous trend, sharpening attention to the socioeconomic drivers of rising care entry (D. L. Bennett et al., 2020).

Socioeconomic drivers

Rising child poverty is a major driver of care entry (D. L. Bennett, Schlüter, Melis, Bywaters, et al., 2022). The international evidence base for a contributory causal relationship between poverty and child maltreatment is mounting (Bywaters et al., 2022). Rapidly expanding access to social care data is likely to increase opportunities for high quality research into the relationship in the near future (Allnatt, Elliott, et al., 2022). To date, every major study using linked administrative data for whole populations to prospectively assess risk factors for children entering care highlight the importance of disadvantaged socioeconomic circumstances (Green et al., 2019; Griffiths et al., 2020; Segal et al., 2019; Teyhan et al., 2019). Relative poverty has been on the rise in England, largely due to cuts to welfare benefits for families with children, the consequence of government austerity policies (Tucker, 2017). Lone parents and families with three or more children have been particularly hard hit (Cribb et al., 2022). Living in poverty increases children's exposure to adversity (Cooper & Stewart, 2021), and clusters with those adversities, in particular parental mental ill health, to produce poor child health and wellbeing outcomes through the lifecourse (Adjei et al., 2021; Lacey et al., 2020) Socioeconomic interventions for reducing children's exposure to harm, including income supplementation, conditional cash transfers, and housing interventions, have been identified as promising (Courtin et al., 2019).

Alongside rising poverty, cuts to preventative children's services in England, deeper in more deprived areas, are associated with rising rates of adolescent care entry (D. L. Bennett et al., 2021), contributing to a cycle of rising acute costs at the expense of prevention (C. J. R. Webb & Bywaters, 2018). The cuts are also associated with rising rates of less acute children's services interventions – though the protective effect of preventative services may be waning over time (C. Webb, 2021b). An evaluation of the health impact of the Sure Start programme, which delivers community-based support to families with young children, showed that it reduced the likelihood of injury-related hospitalisation among children of primary school age, more so in more deprived areas (Cattan & Farquharson, 2019). A small proportion of these admissions can be attributed to child maltreatment (González-Izquierdo et al., 2010); one plausible mechanism for the protective effect of Sure Start is therefore child maltreatment prevention. Meanwhile, cuts to Sure Start have been linked to other negative child health outcomes, such as rising obesity (K. E. Mason et al., 2021), illustrating the broad potential of these services to improve public health.

Collectively, the evidence is that safely reducing care entry, while reducing inequalities, requires action on the socioeconomic drivers of care entry: policies that improve children's socioeconomic conditions, and equitable reinvestment in preventative services.

Elusive policy impact

But the history of health inequalities research has shown that, however strong the evidence base, a commensurate policy response is not assured (Baum et al., 2020; Marmot et al., 2020). A considerable policy analysis literature is devoted to the evidence-policy mismatch, identifying a wide range of obstacles to tackling the social determinants of health inequalities. Chief among them are inequalities in the control, distribution and accessibility of power and resources for public policymaking (Pearce et al., 2019). Other explanations include: individualism, fatalism and 'them and us' thinking among a disengaged public (Marmot et al., 2020); ineffective problem framing (Cairney & Oliver, 2020; Lynch, 2017; Maani et al., 2022; Townsend, Friel, Baker, et al., 2020; Townsend, Friel, Freeman, et al., 2020); researchers' ignorance of the power, politics and timescales governing organisational priorities (Petticrew et al., 2004); a dearth of evidence of the financial costs of policy action or inaction (Petticrew et al., 2004); and the need for research attuned to local contexts (Orton et al., 2011). Perverse academic incentives, including researchers' co-option by well-funded, politically palatable research agendas may play a part (Smith, 2014, 2015). Others have pointed to a counterproductive focus on ever more sophisticated quantitative methods for causal inference despite the weight and breadth of the existing evidence, triangulated across research methods and disciplines (Kelly-Irving et al., 2022). Policy siloes hampering coordinated action may contribute to the stalemate (Exworthy, 2008), as may competing political priorities, or even ideological hostility in the political sphere, particularly where policies would challenge existing power structures (Baker et al., 2018; Exworthy, 2008).

A 2014 systematic review of the policy analysis literature critiqued the general failure to rigorously apply policy analysis theory, leading to naïve recommendations based on fundamental misunderstandings of the policy process (Embrett & Randall, 2014). More recently, Cairney and Oliver have been subtle critics of researchers' attempts at policy entrepreneurialism. They reveal the ways in which researchers have tended to dwell on 'rational' shortcuts taken by policymakers faced with uncertain or incomplete evidence, ignoring 'irrational' shortcuts based on emotions, gut-feelings, habits or beliefs (Cairney & Oliver, 2017), occasioning well-intentioned but misplaced efforts to increase the supply of information to policymakers where information is not in fact what is required (Cairney & Oliver, 2017, 2020). Shrewd policy entrepreneurs must be willing to "find out where the action is, learn the rules of the game, form alliances, frame [their] evidence in relation to the dominant language of policy debate, and respond to socioeconomic context and events which help create windows of opportunity" (Cairney & Oliver, 2020, p. 238). Research seeking to produce useful recommendations for raising the status of an issue on the policy agenda should be guided by policy theory, drawing on conceptual models attuned to the complexities of policymaking – such as the multiple streams approach derived from Kingdon's

work (Kingdon, 1984). Kingdon's approach draws attention to many of the blind spots identified by Cairney and Oliver. It can help map out the sites of policy action, expose the 'rules of the game' (Cairney & Oliver, 2017), assess alliances, identify weak or strong framings, and recognise more or less predictable windows of opportunity (Kingdon, 1984). This may help generate clearer insight into the nature of policymaking relating to the social determinants of health inequalities (Exworthy, 2008).

Kingdon's multiple streams approach

Kingdon's classic work of political science, *Agendas, Alternatives and Public Policies*, considers why some subjects rise on governmental agendas, while others languish. It conceives of three 'streams' of processes, operating relatively independently: problems, policies, and politics (Kingdon, 1984). In the problem stream, respected indicators are often key to evidencing the existence and urgency of a problem. Focusing events, such as disaster, crises, personal experiences or powerful symbols, highlight some problems and not others. Formal and informal feedback from existing programs may also bring new issues to light. But problems must also be framed as such. Deeply held values, a comparative lens, and strategies of classification may transform conditions into problems deemed appropriate for government action (Kingdon, 1984).

The political stream encompasses perceived swings in the national mood, elections that change the ideological landscape, and interest groups pressing their demands. Elected officials have particular power in shaping the political agenda, strategically foregrounding some issues and not others, according to their ideological and electoral interests – and often reinforcing inequalities in access to power. In the policy stream, less visible communities of specialists are engaged in generating policy alternatives, proposals, and solutions. Ideas gain traction according to their technical feasibility, value acceptability, and compatibility with anticipated future constraints (Kingdon, 1984).

Although the streams have 'lives of their own', they are sometimes joined (Kingdon, 1984). Policy entrepreneurs with expertise, authority or leadership qualities, willing to invest time and resources in their preferred policy outcomes, are prepared for these occurrences. They are continually engaged in framing and reframing the problem, 'softening up' the policy stream, pushing their proposals in a variety of forums (Kingdon, 1984). When a window of opportunity opens, policy entrepreneurs are ready to hook their proposals to high profile problems, or capitalise on a ripe political climate (Kingdon, 1984).

Kingdon's theories of the policy process derive from case studies of national policymaking in the United States, a country with uniquely gridlocked institutions of power (Steinmo et al., 1995). But these policy theories, and the models and frameworks derived from them, have proven flexible (Béland & Howlett, 2016; Cairney, 2018). The multiple streams approach has been used extensively in analyses of the successes and failures of policy development relating to the social determinants of health inequalities (Baker et al., 2018; Baum et al., 2014; Exworthy, 2008; Fisher et al., 2019), including at local level in England (Exworthy & Powell, 2004; Hunter et al., 2016). The approach may therefore be adapted to the analysis of decision-making relating to the socioeconomic determinants of child welfare inequalities.

This study

To hasten progress in tackling the socioeconomic determinants of care entry, researchers must contend with the elusive nature of policy impact. My aim in this study was therefore to elicit local authority policymakers' understanding of the challenges and changes in children's services over the past decade, and how this has informed decision-making processes. Using a multiple streams approach, I sought to assess how the socioeconomic determinants are considered, gauge their status on policy agendas, and identify potential strategies to raise their status.

Methods

Project

Though standalone, this qualitative study is nested within a broader, multiphase, sequential mixed-methods project (W. Mason et al., 2020). This qualitative work follows quantitative findings of the salience of the socioeconomic determinants of care entry (D. L. Bennett et al., 2021; D. L. Bennett, Schlüter, Melis, Bywaters, et al., 2022). The sampling strategy is informed by preliminary quantitative work derived from a prior study (D. L. Bennett et al., 2020). Interviews also incorporate elements of data visualisation. The qualitative interview data may be 'triangulated' against the quantitative, allowing me to put 'flesh on the bones' of prior ecological area-level quantitative analyses, and probe complementary or contradictory findings (W. Mason et al., 2020). The qualitative evidence may also point to new research questions, responsive to participants' own priorities, generating further policy-relevant quantitative work (D. L. Bennett, Schlüter, Melis, Webb, et al., 2022). In this study, however, I remain focused on the status of the socioeconomic determinants of care entry in policy.

Research paradigm

This research is influenced by the political philosophy of John Rawls, who posited that, under a 'veil of ignorance', we would create a more equal society (Davidson et al., 2017; Rawls, 1985). This theoretical and ethical position assumes that reality may be constructed and experienced differently – an assumption that underpins this research and informs this study's constructionist paradigm. This paradigm recognises that, in the social sphere, reality, knowledge and truth are not discovered, but created (Schwandt, 1994). Multiple, overlapping realities exist, and knowledge is co-produced in specific contexts (Denzin & Lincoln, 2018). Constructionist analytics attend to *how* reality is done, but also "*what* is being accomplished, under *what* conditions, and out of *what* resources" (Holstein, 2018, p. 693). Given the unequal distribution of power and resources within societies, and their concentration within certain institutions, some forms of knowledge accrue greater influence, and structure others' realities (Bogner et al., 2009). In this respect, constructionist analytics are indebted to Foucault, who considered how discourses – systems of power and knowledge – constitutes subjects and their worlds (Holstein, 2018). Research in the constructionist paradigm recognises the active and reflexive role of the researcher in valuing, evaluating, but also co-creating knowledge.

The approach is well-suited to my aim of assessing local policy priorities, with a view to identifying strategies to address child welfare inequalities. By virtue of their position of authority within the systems that structure the boundary between the family and the state, policymakers possess privileged insight into the phenomenon under study – in our case the socioeconomic drivers of entry. They have access to largely inaccessible, often confidential information, and have a duty to reflect upon and interpret this information, creating and disseminating knowledge (Meuser & Nage, 2009). These perspectives are of particular salience precisely because policymakers have some authority to act upon the knowledge they produce (Bogner et al., 2009). Their understandings of child welfare inequalities may affect those inequalities, through the exertion of power in policymaking. These perspectives and understandings bear investigation. In the research context, policymaker and researcher may inform one another's construction of the issue of care entry, and build new insights, opening up the possibility of change.

Study design and methodology

I undertook qualitative semi-structured interviews with policymakers within local authority Children's Services departments in England. There is a synergy between the constructionist epistemology and interview methodology. In the interview context, I sought to elicit participant's own views. But the data are also constructed in the interaction between interviewer and participant, encoding power dynamics, the organisational context in which the interview occurs,

and inevitably drawing in discourses formed in the wider socio-political world. During the course of interviews, I cultivate the fruitful tension between an inductive, more open-ended approach that privileges participants' meaning-making practices, and a more structured, deductive approach, alive to the ways in which knowledge is contested or co-constructed.

Selection of local authorities

Participants were drawn from six local authorities across four English Regions. This allowed for an exploration of policy agendas in a number of different contexts, while supporting the potential for rich, in-depth exploration of a range of participant perspective within sites. In selecting the sites, I used both purposive and opportunistic sampling approaches.

First, I used outlier sampling (Teddlie & Yu, 2007). I purposively sought the participation of local authorities exhibiting outlying trends in care entry after controlling for deprivation levels and unemployment trends. Qualitative analyses of outlier cases defying expected cause-and-effect relationships can lead to the emergence of new, integrative theory (Gibbert et al., 2021). In this study, it may yield unique policy insights relevant to policymakers in other local authority contexts. For example, participants in local authorities with unusually stable trends in care entry, despite high levels of deprivation, may share effective strategies for mitigating the impact of the socioeconomic determinants of 'demand' for services. Conversely, policymakers in local authorities experiencing a dramatic increase in care entry rates, over and above what might be expected given their deprivation levels, may spotlight particular challenges, including obstacles to implementing policies that have been successful elsewhere.

I used quantitative methods to identify these outliers (appendix 29). Four participating local authorities were outliers, exhibiting either unusually dramatic or stable trends in care entry after controlling for deprivation and employment trends.

Second, wherever possible, I purposively selected contrasting settings, using maximum variation sampling to recruit local authorities heterogeneous with respect to deprivation levels, size, structure, geography, and political affiliation (Teddlie & Yu, 2007). This sampling approach increases the likelihood of eliciting a range of experiences of the phenomenon of rising care entry, enabling analysis that is simultaneously attuned to the role of local context, and to commonalities across contexts (Suri, 2011). There was a spread of deprivation profiles, with participating local authorities drawn from the most deprived to the second least deprived quintiles. There was also variation in terms of local authorities' child population size, geography, structure and political affiliation. However some characteristics were dominant. Over half of

local authorities in the sample were either: in Northern Regions; in Labour-dominated authorities; or had greater levels of deprivation.

Finally, I used snowball sampling opportunistically, to facilitate recruitment of sites. I approached existing contacts, inviting them to share the study information with those who might be interested and eligible. Participants were then encouraged to do the same. This approach is common in studies where recruitment may be a challenge, as with policymakers in positions of authority, or in difficult circumstances, as during a pandemic (Parker et al., 2019). It has utility in exposing policy networks of aligned actors, but pulls against sampling heterogeneity. I analysed the data in light of these varied approaches, their strengths and limitations.

Selection of participants

I interviewed fifteen participants across the six local authorities, with between 1 and 4 participants per local authority. This sample size is appropriate to the aim of eliciting theory of potential relevance to a policy community – large enough to accommodate a breadth of perspectives, and small enough to generate rich data that can be analysed in depth by a single researcher (Vasileiou et al., 2018). In deciding upon the number of participants per site, I first undertook a rapid assessment of a sample of flowcharts mapping the organizational structure of outlier local authorities and counted the number of potential participants of interest. I determined that there would likely be a maximum of five participants per site and adjusted my recruitment efforts accordingly.

Individuals were eligible for participation if they were responsible for shaping Children's Services policy in a participating local authority. This could include determining priorities, devising strategies, or influencing resource allocation. The organisational structure of local authorities varies considerably, as do roles and responsibilities. The definition of the population therefore remained flexible and was guided by participants themselves during the process of snowballing the sample. Throughout, however, I sought to recruit those with the power to set the agenda in Children's Services. Of the 15 participants, five had held the post of Director of Children's Services or equivalent. One had just recently moved on from the role, and the interview covered their time as Director. Another had left but remained deeply involved in Children's Services work and spoke of current and past experiences. Three were Assistant Directors, and four Heads of Service. The three remaining participants held strategic roles, in commissioning, policy, or senior management.

Permission to conduct interviews with participants within the local authority was initially sought from the relevant gatekeepers. Emails were sent, either to the Director of Children's Services using contact details published by the Association for Directors of Children's Services (ADCS, 2020), or to existing contacts within local authorities, sharing the study information and asking that it be shared as appropriate (appendix 30). Where permission was formally or tacitly granted, whether through explicit sanction or by forwarding the email on to potential participants, I proceeded with recruitment. I used snowball sampling to reach the most relevant policymakers within the local authority network (Parker et al., 2019). This approach was consistent with my focus on decision-making processes, with the local authority decision-making nexus as a unit of analysis. I theorised that snowballing interviews within the local authority would lead to a more holistic understanding of individual interview data.

Interview schedule

I adopted both inductive and deductive interviewing approaches; this was reflected in the interview schedule (appendix 31). I devised a set of open-ended questions covering changing resources in children's services, policy priorities, and influences on decision-making. I used these questions flexibly during the first part of the interview, to prompt discussion. They were refined and filtered as data collection progressed, according to which questions elicited richer data. However, throughout, I aimed to foreground participants' own lens on the issue of rising care entry – their interpretations and meaning-making practices (Krauss, 2015). I did not adhere strictly to the questions, preferring to follow participants' leads.

The second part of the interview was more deductive, representing, to an extent, my own partial lens on the issue of rising care entry. I prepared several pieces of data visualisation showing national and local trends in care entry and spend on preventative services, defined as any expenditure unrelated to the running of children's services or children already in care, encompassing family support, youth centres, youth justice and early years services (D. L. Bennett et al., 2021). Plots tailored to participating local authority also contrasted their trends in care entry and preventative spend with those of 'statistical neighbouring' local authorities, as designated by the Local Authority Interactive Tool (Department for Education, 2015). During the interviews, I delivered brief, simple explanations of each plot before inviting participants to co-construct an interpretation. Illustrative plots for a randomly selected non-participating local authority are presented in appendix 32.

Data collection

Interviews took place remotely between September 2020 and May 2021, at the height of the pandemic, before widespread vaccine roll-out. Fourteen were via video call, and one via telephone; they lasted between 30 and 90 minutes. Participants were asked to take the call in a location where they felt comfortable speaking openly; I conducted all interviews from the privacy of a home office. During video interviews, screen-sharing was used to showcase the plots. In the case of the telephone interview, the plots were sent ahead of time – the participant was advised that there was no need to review these before the interview, but were asked to have them to hand. All interviews were audio recorded with written consent from participants (appendix 33), using an encrypted, password-protected recording device.

An open and friendly but relatively formal approach to interviewing was adopted, seeking to put participants at ease while mirroring participants' professional stance. In the interview context, expert's readiness to share knowledge may be influenced by their perception of the interviewer's competence (Meuser & Nage, 2009). Careful self-presentation, and familiarity with the formal and informal rules of the policymaker's context, may influence these perceptions. As interviewer, I was therefore reflexively engaged in managing those perceptions throughout the recruitment and data collection process, seeking to demonstrate 'insider knowledge' when the opportunity arose, while also deferring to participants' epistemological frameworks.

Throughout data collection, an electronic field journal was used to encourage and sustain researcher reflexivity. Reflections, impressions, emotions, and emerging theory were recorded in the journal. A rapid summary was written immediately after each interview, to capture potentially transient aspects of the interview experience.

Analysis

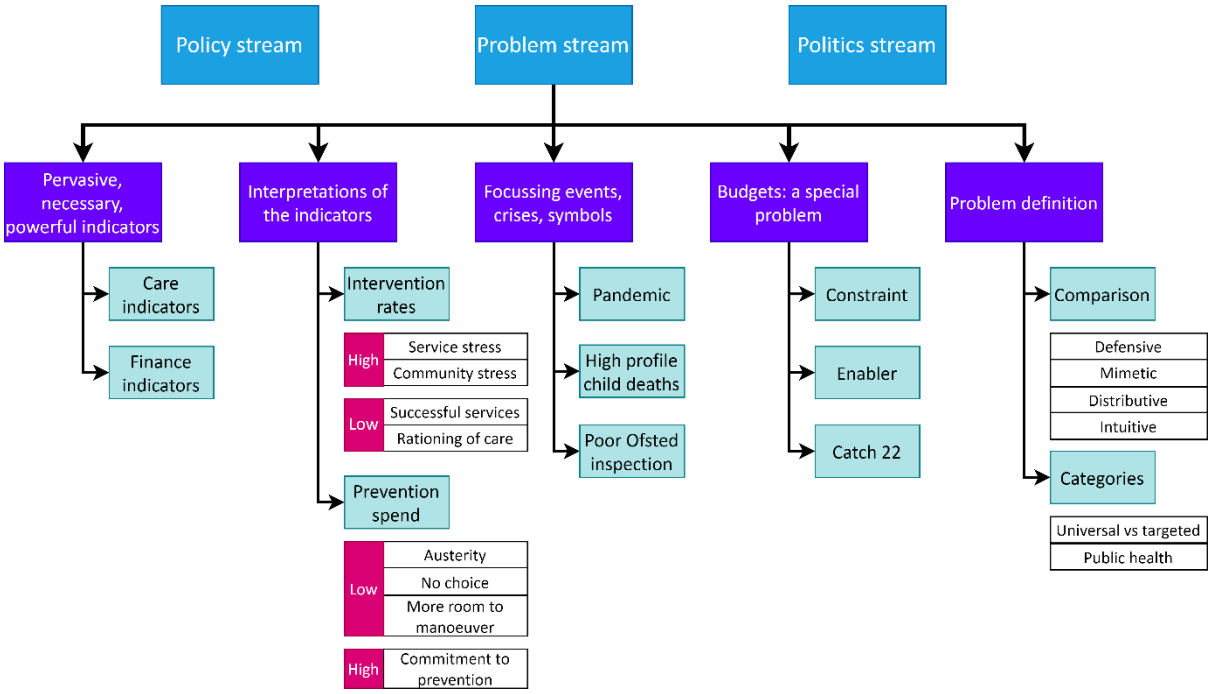
Interviews were transcribed verbatim, anonymised, and uploaded to NVivo. Within NVivo, I first undertook inductive, line-by-line coding, using thematic analysis. Thematic analysis is a flexible approach, commonly used in applied research in the policy and practice arenas (Braun & Clarke, 2014). It draws attention to content and patterns of meaning across a dataset. It is also conducive to constructionist analysis at the latent level – analysis that moves beyond the semantic content of the data to identify underlying discourses, ideas and ideologies (Braun & Clarke, 2006).

Throughout the inductive coding process, I made the most of the flexibility of thematic analysis, taking inspiration from other analytic traditions. I was interested in what was said, but also how it was said (Coffey & Atkinson, 1996). Inductive codes captured participants' perspectives, insights

and interpretations. I also coded for discursive practices, recognising that language may tacitly or overtly communicate ideologies and power relations – an insight drawn from discourse analysis (Braun & Clarke, 2006; Mayr, 2015). Sensitivity to the ways in which participants negotiate, channel, resist or reproduce dominant discourses enables critical engagement with participants' perspectives, avoiding naïve reproductions of institutionally sanctioned knowledge (Mayr, 2015). I generated codes for unusual formal features of text and narrative (rhetoric, syntax, figurative language, narrative beats), and codes for qualities of the interaction (turn-taking, silence or momentum, openness or reserve). Although this is an analytic reflex for this former student of practical criticism (Richards, 1929), analyses of talk and text have proliferated beyond literary criticism, in social research (Goodwin & Heritage, 2016; Peräkylä & Ruusuvuori, 2018). This flexible, multimodal approach to thematic coding envisages the researcher as a 'bricoleur', attuned to the complexity of different modes of enquiry, but free of rigid methodological and disciplinary allegiances (Kincheloe, 2001). As the analysis progressed, I recorded emerging theory in the form of annotations. The process resulted in an extensive, heterogeneous landscape of codes. Analogous codes were grouped together.

I then departed from the process of thematic analysis. Instead of progressively reviewing and refining codes to develop themes (Braun & Clarke, 2006), I moved into a deductive analytic mode. I used Kingdon's conceptual model of the policy process to guide the grouping of codes, focussing the analysis on features of the 'problem', 'policy' and 'political' streams (Kingdon, 1984). I created a hierarchised framework, with a higher-level code for each of the streams and major processes, and subsidiary codes for key concepts relating to these. I then sorted codes into the deductive framework. The move from inductive to deductive analysis was productively challenging, as I sought to preserve richness of insight while directing the scope of the enquiry. I was actively engaged in making connections and building theory that would channel codes from the inductive into the deductive schema. Finally, within the framework, codes were grouped and progressively refined, consolidating insights into processes governing each stream. In this chapter, for brevity, I consolidate further, focusing on the problem stream, and presenting insights pertaining to the socioeconomic drivers of care entry, 'in dialogue' with my quantitative findings. The coding schema is presented in figure 17.

Figure 17. Coding schema.



Ethics

The study was approved by the University of Liverpool's Health and Life Sciences Research Ethics Committee (appendix 34). Ethics were negotiated in practice throughout the research.

Due to the remote design of the study, in the pandemic context, written consent was sought electronically. Before each interview, to reengage with the principles of informed consent, I asked participants whether they had any questions or concerns about the research, and whether participants were still happy to proceed. For both ethical and pragmatic reasons, in mid-February 2022, recruitment was paused for a period of three months. During a supervisory meeting about recruitment challenges, a discussion of the qualitative and anecdotal evidence of heightened pressure on Children's Services policymakers due to the consequences of COVID-19 and associated government policy, there was agreement that persistently following up on earlier expressions of interest might interfere with work and increase stress. I resumed recruitment at the end of April 2022, at which point potential participants were more responsive.

Results and discussion

Pervasive, necessary and powerful indicators

"Constructing an indicator and getting others to agree to its worth become major preoccupations of those pressing for policy change." (Kingdon, 1984, p. 93)

Care indicators

The scale and urgency of the problem of rising care entry was evident across interviews; it was clearly pegged to an indicator. The number of children entering care was a powerful, broadly uncontested longitudinal indicator of this problem. There was also a strong sense that a change in the indicator should prompt research and remedial action by Children's Services. Care entry was a constant preoccupation.

> *For, gosh must be the last ten years, if not a bit longer, the number of children coming into care has grown and grown.*
> Participant 9

> *We were concerned when we looked at our care entrants, there was, um ah, in the local authority, that we'd had a spike in care entrants in specific age groups, in specific wards. [Pause]. So we know those children were not being offered, those families were not being offered a service.*
> Participant 6

The problem-defining primacy of statutory intervention indicators, and care entry in particular, was crystallised in participants' accounts of programme success or failure. By and large, the direction of change of this indicator was the major focus of evaluation.

> *So. What that says to me is, um, the early help work is having an impact because we've not seen a large rise or a continuing rise in the number of children becoming looked after.*
> Participant 12

> *I'm really sorry but if everybody's honest nationally, that programme has completely been a waste of money: it's failed. Like it hasn't impacted the number of children becoming looked after, it hasn't impacted the number of children subject to child protection, [deep intake of breath] in [the area], it hasn't impacted on children being persistently absent from school.*
> Participant 14

Despite its undeniable status and influence in defining policy problems, the care entry indicator was not always itself unproblematic. One participant addressed this head-on:

> *Now, you quite often hear, you hear people say, why is that figure [of numbers of children in care] so high, it, it, it shouldn't be the case. Um, but equally, I never hear people answer well what should be the figure in the local authority?*
> Participant 2

The point may be borne more of pique than a serious questioning of the problematic nature of high numbers of children in care – this participant goes on to describe the local authority having previously been chastised by the courts for 'holding' too much risk in the community. Regardless of motivation, the excerpt does usefully expose, in starkest terms, the socially agreed-upon nature of the problem, raising the possibility of a different read on the indicator, one that pulls towards policy indifference, even a certain level of moral agnosticism:

> *So the strategy there was we'll tolerate that risk. Yeah? I'm not saying that's right I'm not saying that's wrong.*
> Participant 2

This explicit challenge to the indicator was, however, unique in the interviews. Overwhelmingly, high care rates were viewed with deep concern linked to cost implications, the importance of the care entry indicator unquestioned. Its limitations were more or less insignificant and had to be inferred.

For example, alongside the problem of increased 'activity', some participants spoke of greater 'complexity' – a less measurable phenomenon. The concept was under-theorised in participants' accounts. Complexity sometimes meant more severe or entrenched problems within a family. This 'new' complexity might be expected to lend weight to the problem of rising care entry, perhaps signalling high or rising thresholds for intervention and therefore an underestimate of the scale of the underlying problem in care entry data. But complexity could also mean children's services' greater responsiveness to needs that had previously been overlooked, and for which there was now a stronger evidence base mandating involvement, such as children's exposure to domestic abuse within the family home, or extra-familial exploitation (J. Lloyd & Firmin, 2020). This 'new-*found* complexity' might cast doubt on the degree to which a change in the care entry indicators reflects a 'true' change in underlying need, requiring urgent attention and policy intervention.

> *I'd probably also say an increase in activity as well. Certainly the need which children and young people and family present with certainly appear now to be much more complex. I suppose you might ask the question, well, are they more complex or do we just understand them much more now. [Pause].*
> Participant 2

> *And maybe the emerging concerns and the emerging risk that might not have been known or identified, ten, fifteen years ago? And that's all the work around sexual exploitation,*

> *criminal exploitation, county lines, gang activity, which has been a prevalent concern for the local authorities, across the country, for the last six, seven years.*
>
> Participant 3

In later interviews however, after the initial upheaval of the pandemic, both increased activity and complexity began to take on an unambiguously 'real' and urgent quality. There seemed to be less of a question around service-induced demand masquerading as need. In some local authorities, and with restricted opportunities for early detection and intervention due to successive lockdowns, complex demand seemed to be welling up to services:

> *What we see is more of everything. And more extreme than usual. Or more intense than usual.*
>
> Participant 3

Ultimately, it was clear that all senior policymakers were exercised about data. Tracking and tackling levels of acute demand was a major goal. The care entry indicator was pre-eminent, and problem definition strong.

Finance indicators

Care entry was not the only indicator of note. Participants were also familiar with broad trends in finance data. Some knew in fine detail just how much had been invested or lost, and from where:

> *So [approximately 10 years ago], we had a […] base budget for children's centres of [over 10 million pounds], so focusing on pre-birth, you know, children nought to four. And in the budget we've currently got, 2018-19, 19-20, we've got a base budget of [under 2] million, so, we've seen a reduction of [over 80%] […].*
>
> Participant 6

However, this level of detail was unusual. For the most part, and although local authority finances were a constant concern, there was less forensic, analytic immersion in the data. Unlike trends in care entry, local authority finances were not a mystery to solve, but a reality to manage. When discussing changing resources available for children's services, therefore, participants tended to slip into a more narrative mode, with finance indicators only occasionally woven through the arc of a familiar story, the story of austerity. This invariably opened on a pre-austerity period of generous funding for particularly early years services, then came the recession, cuts to local authority budgets, and the loss of preventative services. My plots showcasing broad national trends in prevention spend sometimes served as illustrations of this story ('*Sorry to cut across you – but there you go, you see*').

When it came to individual local authorities, however, some participants seemed unfamiliar with basic trends and hesitated to interpret them, not wishing to speak out of turn:

> *I'd be happy to come back to you on that one because my focus is more on the statutory side, and my commissioner colleagues would be… more familiar with this data.*
> Participant 4

> *Yeah, no, and on this one, I think I will tell you that I do not know, because [tuts], we benchmark ourself, from a statutory reporting duty, with our comparative authority, but the prevention spend is not something that I have seen, or I have come across in such a way. Let alone with our comparator local authorities so, I don't know.*
> Participant 3

These excerpts suggest that, although most participants spoke confidently, in general terms, of cuts to prevention and the havoc they wreak, precise, well-defined, longitudinal indicators of prevention spend may be less commonly used in Children's Services – or may be the province of particular professionals with responsibility for pre-statutory support. The reference to statutory reporting requirements was repeated in every single interview; other indicators are clearly side-lined. What matters is what is counted. What is counted is determined by what is statutory. Therefore, for some local authorities, and despite a rhetorical commitment to 'prevention' variously defined, prevention spend itself may yet remain a blind spot, largely uncounted, readily discounted. There may be scope for raising the status of a prevention spend indicator, particularly if statutory incentives are introduced.

It would be, ideally, a better indicator than the one I used in my plots. As one data-savvy participant discerned, the indicator conflates forms of primary, secondary and even tertiary prevention spend, so masking the depth of the cuts to upstream prevention.

> *[Small pause]. Right ok. Mh. It's probably still covers a lot of services that 'cusp of care' are cited on. (…) So, um, some of that spend likely sits in some of our social work teams, it probably sits in our family group conferencing, our edge of care provision as part of our adolescent offer. So it probably takes in a wider group of services than perhaps I'm speaking about (…) But in terms of pre-social care, the spend is… tiny.*
> Participant 7

In the comparative context another participant hinted at the slipperiness of the prevention spend indicator, the precarity of relying on it. In response to a question about their steeper decline in

prevention spend relative to other areas, they pointed out that high prevention spend could be a casualty of its own success, and so an imperfect barometer of commitment to children:

> *I think the argument always was that if you invest upfront, [tuts], and you then create the change that is necessary, you will be able to save money as you go through. And I think this idea that actually providing good quality services saves you money in the end. You have to spend less.*
>
> Participant 11

This is plausible in theory but would, in practice, require local authorities to have sustained a virtuous investment cycle and high-quality services through tough times – a tall order. It is perhaps telling that this insight came from a participant in a local authority considered to be performing well. And despite highlighting the weakness of prevention spend as an indicator of commitment to children, this same participant was adamant that a healthy spending pattern would favour prevention – this was an explicit goal, in and of itself, with its very own metaphor:

> *Then what happens is that, generally, in Children's Services, we spend a lot on universal services at the left-hand side of the bow tie. Millions and millions. But on a large number of kids. Right? And in the middle we don't spend too much, so it comes down, like, into the centre of the bow tie. And then out at the other end we spend a lot of money, on a very small number of children at the specialist end on children looked after services. Right? Well what we want to do is we want to change that pattern of spend to move from the bow tie to your ski slope. So that you spend very little over here in the specialist end, but you frontload it all up the ski slope.*
>
> Participant 11

Many participants insisted that protecting prevention spend was a winning strategy:

> *Interviewer: Is the local authority exceptional amongst other areas in, in having protected spend on prevention?*
> *Participant: Um? Nooo. No, you find the good and outstanding places will be similar to that.*
>
> Participant 1

Here emerges a central tension. Time and again, I heard that prevention was key. The best local authorities, I was told, protect investment in prevention. Yet a basic requirement for defining cuts to prevention spend as a policy problem – a widely recognised, commonly used, agreed-upon indicator capturing the phenomenon – has not fully been met. If policymakers can agree

that dwindling prevention is a problem worth solving, or even a phenomenon worth tracking and evaluating, this indicator could be created. The problem is highly countable.

Finance indicators certainly counted in programme evaluations. Just as with the care entry indicator, finance indicators could define a programme's success – in fact these two 'success' indicators often went in hand in hand. A change in the former usually meant, de facto, a change in the latter.

> *If we can get the outcomes that we've seen in (…) other places that have that specialist team, we could be avoiding costs of anywhere up to one and a half to two million. Because, because those young people will now not be going into care.*
> Participant 12

> *For every pound we spent on delivering the service, we've saved [more than twice that], across the system, in terms of things like care costs incurred, or likely to be incurred, and avoided; actual care costs that were being dispersed to that particular moment in time.*
> Participant 4

Policymakers therefore needed to demonstrate, not just positive impact or even simple value for money of an intervention, but short-term return on investment. Under these circumstances, the meaningful finance indicator is not 'prevention spend', but 'acute costs averted'.

Interpretation of the indicators

"Indicators are not simply a straightforward recognition of the facts. Precisely because indicators have such powerful implications, the methodology by which the facts are gathered and the interpretations that are placed on these facts become prominent items for heated debate". (Kingdon, 1984, p. 94).

Interpreting high intervention rates and inequalities

i. Service stress

Some were cautious, others categorical, but to some extent, all participants linked high and rising intervention rates to service cuts that placed inordinate stress on surviving services. This 'service stress' model was the dominant theory or explanation across interviews.

> *So I think it's multifactorial. I think some of it probably actually goes back to about 2010 when austerity first started and local governments were getting less and less grants from the centre. Because what they did first of all was take away the preventative services.*

Participant 9

Um, and you know you see that happening today and people wondering well why do you have too many children in care? - Well actually we're not getting involved early enough at the beginning.

Participant 1

Yeah 2008, 2009 were a first sort of, um, decrease in budgets coming in? Fewer services around to support families. Um, [clears throat] so that early intervention, early support, early identification perhaps wasn't there?

Participant 10

So we, we were having sort of early help services cut out and… so more children were ending up in the system and social workers were overwhelmed – really high caseloads.

Participant 4

In general, participants were tentative when interpreting trends, appealing to complexity ('*it's multifactorial*'), using the language of uncertainty ('*I think*', '*perhaps*'), ending sentences with an interrogative turn ('*decreased in budgets coming in?*'). This hesitancy may be attributable to my interview approach: it was more common when discussing the plots than when responding to open-ended questions. Faced with the plots, and feeling put on the spot, participants may have been inclined to express themselves with greater diffidence, not wishing to commit to a single explanation. Because ultimately, across all interviews, there was a clear causal theory, and a confident, consistent emphasis on the earliest forms of prevention ('*preventative services*', '*not getting involved early enough at the beginning*', '*early intervention, early support, early identification*', '*early help services cut out*', '*cutting down of the community resources*'). The following excerpt goes one step further, moving us beyond cuts to preventative children's services, into the diminished ecology of preventative services in the wider community:

Do I have a view on why, and how? I haven't really got a strong view. I haven't really spent the time thinking about what could be the trigger point, other than what I would see to be clear evidence of increased number of looked after children, increased deprivation in some area as a result of the cutting down of community resources, in order to work with families.

Participant 3

Here, the service lens seems almost all-encompassing; even rising area-level deprivation is swallowed up by it, and cast as a direct consequence of the cuts ('*as a result of the cutting down*'). For some, therefore, the loss of public and community services did not just hinder efforts to mitigate

the impact of deteriorating material and social conditions – it was itself a major feature of the uneven distribution of resources that creates those conditions in the first place. For others, cuts to services and community hardship were relatively distinct phenomena occurring simultaneously:

> *So that whole cut from 2010, I think then reflects why numbers went up. That and also in the general public, some of the impact of less jobs and things. Around that same time.*
> Participant 7

This split lens brings us to another major explanation given by participants for trends in care indicators: community-level risk factors.

ii. Community stress

In a rare, overt challenge to the dominant service-stress theory of rising care entry, one participant instead emphasised the overriding role of change at the level of communities:

> *I think some our colleagues think well, if you work really hard then the number of looked after children will come down. Well actually, when you look at all the indicators in communities and risk factors, be it poverty, poor housing, domestic abuse, substance misuse, adult mental health. You know, the current conditions in communities, not just in [this local authority] but elsewhere, wouldn't suggest to you that the current pressures people are under means that those things are in the right direction.*
> Participant 12

Although no single risk factor is given particular prominence ('*poverty, poor housing, domestic abuse, substance misuse, adult mental health*'), this passage nevertheless contains all the components of the influential family stress model for the relationship between disadvantaged socioeconomic conditions and care entry (Masarik & Conger, 2017), from the '*conditions in communities*', including poverty and poor housing, to the '*pressures people are under*', and the ways in which this may harm families ('*domestic abuse, substance misuse, adult mental health*').

Later in the interview, responding to a plot showing rising inequalities in care entry, the same participant elaborates as follows:

> *But, the reality is, poverty doesn't equal poor parenting does it. However, when we look at the range of factors that lead to family crisis, you know, the areas where there are higher levels of deprivation, that's where you do see that. So, you know, the variables are, are, are correlating aren't they, across a large impact of poverty and worklessness, and even in-work*

> *poverty as well. Then linked to adult mental health, then linked to domestic abuse, then linked to substance misuse.*
>
> Participant 12

Though 'stress' does not make an appearance, this is recognisably a family stress model – or at least, there is at a vague sense of a chain of causation running from the wider socioeconomic conditions ('*levels of deprivation*'), via the disproportionate impact on those places of worsening conditions ('*large impact of poverty and worklessness*'), to the effects on individuals and relationships within a family, and therefore parenting.

But mostly, when participants elaborated on the relationship between socioeconomic conditions and care entry over time, their explanations leaned heavily on that mediating link between exposure (poverty) and outcome (care entry), that financial stress.

> *Yeah because of the stresses [slight caution here] Um, the, the contextual issues as well? Um, and the stresses. So you know, um. When you're living in poverty it, it, it* is *stressful, um.*
>
> Participant 14

> *Other factors that lead to people suffering from stress and anxiety, are worrying about their finances isn't it, and worrying about – you know, um, the housing and things like that. Um, and people - you know, so. It is a public health issue really.*
>
> Participant 6

Instead of taking a community-level view, these accounts tend to be grounded in an empathetic vision of the family – they ask us to personalise ('*When you're living in poverty*', '*suffering from stress*'). We all know what it is to feel stressed. It is an intuitive, accessible concept – one that child development researchers, acting as policy entrepreneurs, have consciously used to better communicate the harmful consequences of early years adversity (Shonkoff & Bales, 2011). The careful, conscious framing of stress as 'toxic' to child health has been used to make the policy case for early years investment (Allen, 2011; Shonkoff & Bales, 2011). Although this framing has been criticised for perpetuating falsely fatalistic and alarmist narratives of the impact of experiencing adversity in childhood, contributing to the legitimisation of child removal practices (Featherstone et al., 2014; Wastell & White, 2012), stress remained in participants' accounts an important conceptual tool. The key difference here is the emphasis on financial stress affecting families, rather than neurochemical stress affecting children. And so, when placing stress at the centre of the narrative, participants were able to articulate the relationship between poor

socioeconomic conditions and children's adversity – and without recourse to stigmatising but enduring discourses of 'problematic' families (Cooper, 2020; Lambert, 2019; MacNicol, 2017).

The excerpts above begin to engage, not just with temporal causal chains (poor socioeconomic conditions > family stress > adversity), but also with interpretations of contemporary trends. Unemployment in the aftermath of the recession is one theory of how socioeconomic factors may be fuelling care entry ('*we were in austerity so there wasn't as many jobs around*'). Two participants drew a connection between rising care entry and cuts to welfare benefits, one of them in response to the plots:

> *So there's something –I'm wondering, are we beginning to see the rollback from universal benefits, support for children and families – having an impact on local authorities. And pushing already vulnerable families, who may have had incomes that were slightly less pressured, and who may have been able to access more informal support, but as those informal supports have either had to withdraw or close or shrink because they're just not there anymore.*
>
> Participant 13

> *It's a bit of everything, you know, universal credit coming in created a new layer of concerns and potentially one of the knock on impact was, maybe, a new layer of deprivation and financial struggle, which meant that families were struggling within the confines of their homes, which then had a trigger on potential mental health difficulties and so on and so forth, it's a bit of a domino effect. I don't think. I do not believe that changes in universal credit as a stand-alone change, is the root cause of everything, I think it's part of the wider issue that needs to be considered, in the whole spectrum of changing needs and evolving needs within families.*
>
> Participant 3

The idea that cuts to welfare benefits might be playing into care entry trends is presented as fresh, almost fanciful ('*There's something – I'm wondering*'), and again, there are caveats to navigate ('*it's a bit of everything*'), straw men to set up and knock down (not the '*root cause of everything*'). In the last excerpt, the fear of being misunderstood apparently stems from a tendency to think of causal factors as somehow sufficient to explain rising care entry – necessarily discrete ('*standalone*') and, therefore, by default, purely proximal. Even where causal chains are well understood, well described, ('*pushing*', '*knock-on impacts*', '*domino effects*'), the further up the chain we move, the more caveats we might expect.

Certainly, in contrast to the clear and common causal theory of rising care entry linked to cuts to preventative services, when it came to poor socioeconomic conditions, participants conspicuously avoided causal language. They censored the 'c-word', engaging in linguistic practices usually reserved for quantitative researchers fielding a sceptical peer review (Hernán, 2018):

> *When we look at… factors that are associated with, with child neglect, then obviously deprivation is a massive factor there.*
> Participant 12

> *Um, ah, you know and no doubt, you know, it's um, it's linked to deprivation. Certainly it's linked to deprivation.*
> Participant 6

> *Dep-deprivation and poverty are, are, you know, are correlated massively with those so, you know.*
> Participant 2

> *I'd say you could almost say it's causation between sort of, uh – you could almost say it, but you can't [smiling] – causation between poverty, deprivation and numbers of kids in the system.*
> Participant 4

In the same breath, participants emphasised the importance of deprivation ('*massively*', '*massive factor*', '*no doubt*', '*it's the deprivation*'), and avoided making too direct a link with care entry ('*correlated*', '*associated with*', '*linked to*', '*almost say it's causation (…) but you can't*'). Sometimes the language seemed to abruptly veer away from a consideration of deprivation itself:

> *It's the, yeah, deprivation, it's. I mean the biggest, the biggest issue is, in more deprived areas, is neglect and cumulative neglect. Um, as you'll know, associated with mental health, domestic violence –*
> Participant 1

Here, deprivation seems poised to occupy an overarching position – perhaps the outer arc of a Dahlgren-Whitehead rainbow model of health determinants ('the biggest') (Dahlgren & Whitehead, 2021). But suddenly it is no longer in focus. It fades into the background, tacitly dismissed as a feature of place (dis-placed), in favour of the flattened list of proximal risk factors. This linguistic sleight of hand, the slippery nature of poverty in policymakers' accounts, echoes Morris et al.'s finding of a "constant movement between acceptance and denial of the association

between poverty and child maltreatment" among social work teams (Morris et al., 2018, p. 369). This frontline tendency may well reflect and reinforce a similar conceptual ambivalence higher up the hierarchy.

Participants' caveats are key to understanding the hesitant turn: '*But, the reality is, poverty doesn't equal poor parenting does it*', '*whilst deprivation and poverty doesn't mean that children* are *neglected*'. They seem to be probing the distinction between *deterministic* causation ("A causes B means that whenever A occurs, B occurs") and *probabilistic* causation (A causes B means that "given A, the probability of B is greater than some criterion, such as the probability of B given not-A.") (Frosch & Johnson-Laird, 2011, p. 280). There is, as the participants clearly express, nothing inevitable about the relationship between poverty and care entry at the individual level. The epidemiological evidence is probabilistic (Bywaters et al., 2022). But in these interviews, to speak of causation was to inadvertently *imply* deterministic causation – to collapse likely causal chains and risk a dangerous, stigmatising equivalence between being poor and being a poor parent (Cooper, 2020). The uneasy caveats reflect policymakers' sensitivity to frontline challenges – in particular, the potential for oppressive practice if parents in poverty are unduly targeted. This is consistent once again with the work of Morris et al., who identify the fear of stigmatising poverty as a barrier to addressing it in practice (Morris et al., 2018).

When considering how to address policymakers' unease, and perhaps allay their fears, policy entrepreneurs might usefully explore the distinction, not just between deterministic and probabilistic causation, but between the tasks of prediction and causal inference – and how these relate to the core tasks of Children's Services. Prediction focuses on "identifying and discriminating patterns from the data to determine features or to forecast events" (Tennant, 2023b, p. 8). It may be useful for recognising when intervention may be required "but – in itself – offers little information about how best to intervene" (Tennant, 2023b, p. 9). Causal inference, on the other hand, focusses on "understanding how one thing might influence another" (Tennant, 2023b, p. 8), how changing one factor might change another. Children's Services do both. Practitioners and policymakers make individual-level predictions when assessing a child's risk of significant harm ('*we have to look at our crystal balls for the future*') and population-level predictions when considering the allocation of resources and support ('*there is not a perfect distribution of services')*. They do causal inference when seeking to prevent harm before it occurs ('*you should be investing in early intervention and prevention*'). Policy entrepreneurs drawing attention to the problem of poverty should be sensitive to these different practices. When aiming to inform local policy, communicate causality, and guard against stigma and class bias, they may wish to promote the causal lens. As a contributory 'cause' in the realm of causal inference, the problem

of poverty is a preventative endeavour – it belongs to Children's Services' support function – not its child-level prognostic efforts, its 'crystal ball'.

These challenges, and participants' seeming fear of being misunderstood, may help explain the powerful emphasis on more proximal, parent and family-level risk factors, sometimes to the exclusion of socioeconomic factors. In many accounts, poverty was missing from the mix. This is not to say that these participants lacked a sophisticated understanding of families' struggles. Simply, instead of stepping back and theorising the mechanisms of rising care entry, these participants plunged us straight into a household already in crisis – in this conceptual space, multiple risk factors were simultaneously present, and the main mechanism of harm was accumulation. Participants described a chaotic accretion of risk factors. As in Morris et al.'s work on poverty in practice (Morris et al., 2018), the so-called 'toxic trio' made several appearances – the term is commonly used in practice to describe the co-occurrence mental ill health, domestic abuse and substance misuse, but is increasingly contested (Adjei et al., 2021; Hood et al., 2021). Other clusters were also cited (my emphasis):

> *What we're seeing is repeat removals from parents who have got, who have… not changed their lifestyle because they've got entrenched drug misuse, substance, you know alcohol misuse, mental health issues, domestic abuse*
>
> Participant 7

> *So neglect as an issue and actually - and domestic abuse - so you know, domestic abuse linked to what they call the toxic trio, which is – well the toxic trio includes domestic issues, drug and alcohol, and domestic abuse so.*
>
> Participant 9

> *The main cause is, for early help, um, there, there's a string of them but they're also kind of, um, in - they also intertwine as well, is domestic abuse, poor parenting capacity, and I think it's neglect. But, but all three, all three can be part of the same concerns at any one time.*
>
> Participant 2

These participants often struggled to relay these risks back to the plot showing widening inequalities in care entry – this would have required some explanation for a spontaneous increase in, for example, domestic abuse, at area level. You can see me pressing for this explanation in the following excerpt. And, when pressed, participants did sometimes reach upstream for explanations rooted in poverty or unemployment, and the damage it does:

> *Interviewer: Yeah. So a greater focus on that as a danger than perhaps previously? Has that changed over time – the response to domestic abuse? Or is it that it's maybe more prevalent in the community?*
> *Participant: I think both, I think the impacts of emotional health and wellbeing. Poverty, unemployment in the family home… When you are stressed, and you find life challenging, living with another person becomes increasingly challenging –if you've not got the language or the skills to respond differently. Um, then domestic abuse is often what we see.*
> Participant 10

Sometimes, poverty featured as merely another risk in the risk clusters, often alongside the 'trio', with no distinction between proximal and distal factors – a flattened model representing an acute situation.

> *The prevalence of underlying health conditions, and multiple [long pause] poorer outcomes, so that over-layering of, you know, poor mental health, less financial opportunity, less ambition or drive or opportunity for your children.*
> Participant 13

One participant did try to hierarchise risk factors:

> *But our overriding issue was, is, neglect and poverty. But underlying that you have issues of domestic abuse, you know, alcohol and drug abuse. And it's like which causes which, really, but probably a lot of the neglect is underpinned by… um, poverty and alcohol and drug abuse, and then domestic violence. They're all, they're all linked together really, Davara, but.*
> Participant 9

This through-the-looking glass attempt at untangling causation ('*overriding*', '*underlying*', '*which causes which*', '*underpinned*') ends in a nexus of interrelation. This passage exposes the very real difficulty of grasping, either conceptually, in words or, for researchers, in logic models – the nature of syndemic relationships, how risk factors cluster together, and the specific role of socioeconomic conditions within those dynamics (Singer et al., 2017). But my analyses suggests that without a guiding model of how poverty operates, it can easily be minimised, dropped, pushed into the background, crowded out by caveat. Ultimately, in contrast to the simple story of stressed services, community-stress theories of rising care entry and inequalities were more difficult to unravel. Participants were acutely conscious of the challenges families faced, but the story of rising child poverty did not break through strongly. The socioeconomic drivers of rising care entry often recede – until policymakers are called upon to explain differences between areas.

There was a marked difference in the way participants spoke about poverty within families, versus deprivation across places. Take this first excerpt, which begins with yet another caveat and ends by drawing attention away from deprivation, towards family-level factors:

> *So. [Sigh]. I think it's really complex. Um, [pause] there's obviously lots of families who live in deprived areas who look after their children and there's no issues. Um, and there's lots of deprived families who can parent, and live in poverty but their children, you know, are well cared for, so, I guess it's about understanding what makes the difference between two families that might live next door to each other in a deprived area, and one has children who end up known to social care and one doesn't.*
>
> Participant 14

Compare it with this one, in which the same participant seeks to explain their local authority's trends in care entry:

> *Even some of the best performing local authorities have seen an increase, maybe the year before last, in the number of children becoming looked after. Not to the same extent as us by any stretch of the imagination, but. And they are a more affluent area as well, they don't have the same levels of deprivation so. Again, there's that deprivation issue.*
>
> Participant 14

Suddenly, the ambivalence recedes. When discussing their own local authority's performance relative to other areas, participants did not hesitate to interpret the plots so as to attribute variation in care rates to differential deprivation levels. Assurance about the role of deprivation was a consistent and marked feature of the comparative mode:

> *I came from another local authority and [this local authority] had… a kind of equal number of children on child protection plans. And how can that be, coming from a much smaller local authority to [an authority] where there are high levels of deprivation. How can your numbers on child protection be so low.*
>
> Participant 7

> *I think I've already mentioned our public health profile is different? Levels of deprivation that is different.*
>
> Participant 13

Here there is no need to elaborate, no need to untangle causation. 'Deprivation' was sufficient explanation, an immovable 'fact', fixed and unvarying. Epidemiologically, the static deprivation explanation lends itself well to explaining differences *between* areas, less so to differences *within*

areas over time. Participants may have felt better able to speak confidently because they were sticking to time invariant comparisons in the realm of association. I will return to this curious confidence in a later section on problem-definition through comparison.

Interpreting low or declining intervention rates

i. Successful services

Rising care entry was the norm. But my focus on outlier local authorities led me to areas that had experienced relatively stable trends, considering their levels of deprivation and worklessness. Even places that struggled with high rates over the decade had sometimes experienced periods of greater stability. Participants invariably attributed current low or stabilising intervention rates to policy successes, and, in particular, prevention. Prevention came up time and again, prevention of all shapes and sizes, primary, secondary and tertiary – the concept, it seemed, could be made to mean almost anything. Whatever their working definition, participants were firm in their belief that preventative services were key to managing acute demand, shielding children from unnecessary entry into care, but also shielding more acute services from overwhelming demand ('*protecting our front door*'):

> *I've heard lots of people* talk *about prevention and early help, but not so many with the… bravery and the boldness to kind of invest in early help in the way that we have here.*
> Participant 5

> *So. What that says to me is, the early help work is having an impact because we've not seen a large rise or a continuing rise in the number of children becoming looked after.*
> Participant 12

> *It's because we've got the right kids in care, the right help going to families so that their kids don't have to come into care, social workers with the time and ability to do that, because actually early help services are protecting our front door.*
> Participant 4

Still in the realm of prevention, one participant from an outlier local authority described shifting resources upstream, but upstream of the system itself, seeming to conjure a more expansive, more ambitious vision of primary prevention:

> *– we do spend a lot of money on the system. And how do you make that shift. You know I think that we're an example of having made some of that shift. Because we've reduced by*

> *[hundreds] in this [local authority] the number of kids in care and that has stayed […] lower each year since we made that shift.*
>
> Participant 11

Participants' explanations also drifted downstream, to secondary and tertiary preventative services. Some spoke of the fantastic success of edge-of-care services for older children, offering respite to parents and support while pushing back against a long-term out-of-home solution. Others pointed to their local authority's strong pre-proceedings support, offering intensive programmes to address parents' complex needs. Others still lauded tertiary prevention leaving care services devoted to sustainable family reunification:

> *But we've had some really, really positive and successful cases where we've stepped that down and the risk can be managed in child protection, and it's even then stepped down to child in need and then get back down to early help and eventually universal services.*
>
> Participant 7

For many participants, the commitment to family support stemmed from core values. They believed in keeping children within their families wherever possible. This was a belief with a founding text – the 1989 Children Act ('*at the heart of it is the welfare principle*'). And this family orientation was the touchstone for a range of policy efforts to reduce care entry, from family group conferencing to a push on reunification efforts and kinship care.

> *So to start to do something about that, you know would be relatively – I say easy – but relatively straightforward because you only need some kind of strong leadership, some principled ways of going about it. A method. You know, this is how we're going to operate it. These are the things that are important – <u>this</u> is what we're gonna chase in terms of reducing these numbers of kids in care. <u>These</u> are the types of kids that should be back with their families and we need to do everything that we possibly can to get them out of care and get them back into their families, 'cause that the best way – that's the best place for them.*
>
> Participant 5

> *You know the 1989 children Act. We always talk about it as a really good piece of legislation. And at the heart of it is the welfare principle, you know this idea that you try to support children and young people to live within their families wherever possible.*
>
> Participant 11

There is some evidence linking a strong family support culture with levels of out of home care. A workforce survey in Wales suggests that children's social care workers from local authorities with

declining rates of children in care exhibit stronger pro-family values and have greater confidence in support from their local authority (Wood & Forrester, 2023). The role of funding relative to need in promoting such a culture is not explored, but it seems plausible that they are mutually reinforcing: strong support for families may lead to investment in a richer ecology of support services, and this investment may, in turn, enable practice that is more congruent with social work values.

ii. Rationing of care

While a powerful family-first moral discourse was prevalent across interviews, some also spoke of financial pressures pulling in that same direction of keeping children out of care. Perhaps unsurprisingly, given participants' present responsibility for ensuring children's safety, talk of rationing was more common when reflecting on historical trends ('*you'd need to understand the… organisational history*?'; '*you look at it kind of like the history*', '*at that time*', '*it was interesting sort of mid-decade what happened*'):

> *We were trying to save money by getting children out of care if that makes sense.*
> Participant 2

But rationing was not always a legacy issue. Concerns were raised by participants from local authorities struggling with high levels of demand:

> *And there's a lot of pressure – and awful lot of pressure on the service around the amount of money that we spend on placements, and because of the market, the way that… some things have been privatised – allowed to be privatised – so you know children's homes, and, [sigh], foster care, it's created um… what's the phrase when there's more demand than supply? So the market's totally in control and can dictate costs, and [pause]. That's really difficult for a service to manage with the pressure from your corporate, from your chief exec, because you know [sniff] you are… bankrupting the council [small laugh]. But on the other hand we've got certain standards and expectations, and an inspectorate, and statutory guidelines, that we have to – and quite rightly so – place children in um, decent accommodation and safeguard children properly so [sigh].*
> Participant 14

There is pressure from local authority leaders to keep rates low – including, it seems, to cut costs by rationing care. It is clear from the excerpt that this generates moral stress. The participant does draw attention to the countervailing regulatory and legal forces. Virtue ethics also play a supporting role ('*and quite rightly so*'). But where there are powerful financial exigencies, values are

put to the test, and rely on those fundamental legal and external institutional safeguards ('*inspectorate*', '*statutory guidelines*').

The rationing of care by deprived local authorities may mask the scale of the problem of rising inequalities – this is one possible explanation for the inverse intervention law (Bywaters et al., 2015). Yet problematic rationing was linked in participants' mind, less with consistently low care rates, than with fluctuations, year on year. Lower, stable rates may be more likely to reflect low deprivation levels or policy successes, than artificially high thresholds for care. Rationing was not seen as a viable long-term solution; it was considered a stopgap measure, one that creates more problems further down the line ('*Because you're always gonna end up seeing those kids come back in*'):

> *Interviewer: So when I see fluctuations like this, I should very much be thinking about, you know, that top-down, finance-pressured response –*
> *Participant: - Yes absolutely –*
> Participant 10

Interpreting high prevention spend

Few participating local authorities had unusually high or rising prevention spend; insights were perhaps bound to be thin. Nevertheless, some places had stable trends in prevention spend, or higher spend than statistical neighbours despite an overall decline. Some had reversed their trends, spending more on prevention in recent years.

i. Local authority commitment to prevention

When pressed to explain some of features of these trends, and participants frequently noted political commitment to prevention, strong values-driven leadership, even a 'culture of belief' in preventative work to reinforce the evidence base. Perhaps some simply defaulted to this simplest explanation, which also reflects well on their leaders, and their organisation. But others were adamant:

> *So it's also the focus, the commitment of our politicians. You know they remain committed to early intervention and prevention, and therefore resources have been protected. Yeah. And (…) you know that changes from council to council, that focus, absolutely.*
> Participant 13

> *You know we took different decisions. The decision that money saved from children in care was going to be reinvested in early help.*
> Participant 4

> *But you're right, there seems to be a rise further back which. Which I believe is a great indicator from a local authority perspective that the problem is known to us, and that they're trying to do something about it.*
>
> Participant 3

This theory of wise and virtuous local authority decision-making was the most common – I interrogate it further in the politics stream, not featured in this chapter. Participants rarely offered alternative explanations, and it may well be *the* explanation. The plots showing trends in prevention spend may also have failed to spark recognition or inspire deeper theorising. As we have seen, 'prevention spend' was a comparatively neglected indicator, and an imperfect one. Participants may have been unfamiliar with the features of trends in the plots, or the particular comparisons the plots invited. The features of interest to myself as a researcher – stable prevention spend or comparatively high spend – may also have seemed inconsequential relative to the era-defining cuts that structured practically every local authority's recent experience. Because even participants that discerned in their trends a commitment to prevention returned us to this reality:

> *I think I've already indicated, that's in scope now because if I've got to reprioritise, in order to protect our statutory service, then that's what I'll have to do.*
>
> Participant 13

The participant's tone here was curt, as though they were hardened to the idea of this sacrifice. There is a powerful precarity to the kind of commitment that has already envisioned its own expiry. We see here the limits of relying on even exceptional leaders in a fragile system.

Interpreting low prevention spend

i. Austerity narrative

Participants' preoccupation with trends in prevention spend usually took narrative form. The story sometimes began with allusions to a bygone golden age in local authority financing.

> *And sure start local programmes had a lot of money attached to them to be able to provide services, to commission services. And I'm talking - millions - of pounds. (…) Um, which, which was massive.*
>
> Participant 10

> *So I was having this conversation a few weeks back really, 'cause I can remember a time [tuts] sort of in the nineties, where, you know, compared to where we are now we were awash with money.*
>
> Participant 5

There is a suggestion in these retrospective accounts of a kind of excess, even decadence – the budget for early help was '*massive*', local authorities were '*awash with money*'. These same participants went on to express reservations about local authority decision-making around this time:

> *We got money in sure start local programmes, we didn't always have the, the direction and the guidance about how we were supposed to spend that money? In the wisest way?*
>
> Participant 10

> *Umm, and, it would be harsh to say we squandered that, but I don't –I'm not sure we really used that money to full effect?*
>
> Participant 5

The misgivings are not about levels of funding, but local authorities' ability to make best use of funds without robust guidance. Nevertheless, in combination with the language of excess, the overall impression is of waste. If the dominant narrative about this period of unprecedented preventative support is one of ambivalence, it becomes difficult to imagine and advocate for a straightforward return. Spending can as easily indicate profligacy as prudent investment.

Not all participants adopted this ambivalent framing. For some, this time was more straightforwardly prelapsarian:

> *I mean if you think about it, in the olden days, which is probably, what, ten years ago? A family would be struggling, they would go to their local Starting Point. And, and from that point on, they would be signposted to the local offer, to community offer, to community services.*
>
> Participant 3

> *There was – it, it was quite a hopeful kind of picture.*
>
> Participant 8

These excerpts convey a sense of nostalgia. The fairy-tale-like 'olden days', the faintness of the memories, a decade old, seems to relegate this vision to a past beyond reach. If past policy achievements are either contested, or lost to time, there is perhaps a need to build consensus

around a new, more present framing – a new, re-envisioned 'hopeful picture' of well-funded services.

However this time of relative affluence was framed, there came a turning point:

> *Aaaand, obviously the … local authority funding started to be severely cut with austerity.*
> Participant 14

> *And then, when austerity kicked in, I can't remember the kind of percentage of the cuts now. But Children's Services was subject to quite savage cuts then? Yeah?*
> Participant 2

There is a bathetic quality to the storytelling in these excerpts, and it was clear throughout the interviews that the austerity story was by now so familiar, so well-worn, as to be barely worth retelling. '*Obviously*' there were deep cuts. There's no preface to '*when austerity kicked in*' – it is taken for granted that the interviewer, like the participant, would know what came next ('*Yeah?*'). Austerity was a tedious narrative inevitability. Indicators relating to the depth of the cuts had faded from memory ('*I can't remember the percentage*'), leaving behind only adjective ('*savage*'). The sentences are grammatically awkward ('*started to be severely cut*'), ('*was subject to quite savage cuts*') (my emphasis). They have been contorted into a passive formulation, effectively obscuring the subject of the sentence – and author of the cuts – central government. Participants were perhaps reflexively diplomatic or displaying professional caution when defaulting to the passive; many of them held politically restricted posts, requiring a politically neutral manner in the fulfilment of work duties. In this particular case, it is clear who is responsible – the linguistic illusion is easily dispelled. But with repetition, this tendency to obscure the source of decision-making power can complicate, even sublimate the idea of accountability.

So although national-level fiscal policies following the recession are a source problem, definitionally problematic for addressing the socioeconomic determinants of care entry, these policies and their progenitors did not necessarily occupy centre stage in participants' accounts. This does not mean that they were not important – every interview, without exception, covered the cuts. Simply, participant narratives did not dwell on national decision-making. Instead, they picked up on the myriad ways in which these cuts cascaded through local systems. Sometimes the source problem was pinpointed: '*austerity*' was used as a shorthand for central government cuts to local government finance ('*that whole cut from 2010*'). But more often than not, participants picked up on consequences of the problem as it worked its way downstream. There were '*budget cuts*', '*cuts at a council-level*', '*the state of the budget*', '*what we were left with*', '*reductions*', '*decreases*', '*loss of*

funding', '*no more funding*', '*tighter resources*'. The language of 'deficit' often took over from the language of 'cuts': local authorities were struggling with '*massive budget gaps*', '*deficit*', '*pressures*', '*balancing the books*', '*budgets not keeping up with demand*', '*demand exceeding investment*'. From the theme of 'deficit', it is a short step to the subtlest suggestion of fiscal mismanagement, with '*overspend*', '*out of control expenditure*', '*risk of bankruptcy*'. In such a way, the locus of responsibility can shift almost imperceptibly from central to local government, often behind the veil of the passive voice.

> *And… because of the way local government finance has been reduced significantly, you've seen over time, it's that part of our activity – the early help and prevention – that has been, let's call it the sort of easier target for… service reviews and reduction in spend, because it's, it's non-statutory. And we've seen a rise in the investment in the serious end of the work with families, and then social care, and looked after children.*
> Local authority 1, participant 1

Local government finance '*has been reduced*'. Early help and prevention '*has been the easier target*'. '*We've seen a rise in the investment*'. Each sentence in this excerpt invites the question, 'by whom'. Whether a signal of diplomacy, loyalty, subtle disapproval or disavowal, the tenacious use of the passive blurs accountability, even as its trickles down. Accountability is devolved, though power is not. This same participant refers to the whole phenomenon of cuts from the centre to the periphery as 'the state of local government financing'. This radical shorthand suggests drastic normalisation – perhaps in recognition of the powerlessness of local government to affect national agendas.

Normalisation works through repetition, and participants told the story, not just of the nature and extent of the problem of the cuts, but its gruelling persistence – a process of attrition, a '*constant*' battle marked by biennial spending reviews:

> *And it's a constant battle every year in terms of that financial funding – and probably that's the one thing that I got most fed up of when I decided to pack up being a Director of Children's Services, because those budget fundings [phone rings once] and that hounding of how much can you give in (…) But every year I kept having to slice more and more off the prevention budget.*
> Participant 1

And massive cuts every two years in line with the spending reviews that government were giving to local authorities (…) it's the more gradual decline that's been harder because it's the nibbling away at – um, so we'll just take a little bit more out and a little bit more out.
Participant 10

(…) over the years, when a lot has been stripped, uh, it's much harder to keep on stripping.
Participant 3

Whereas different participants had their own version of the story of local authority spending pre-austerity, here was a consensus among participants, from areas most to least deprived, that, at a minimum, there was '*no more slack'*. This baseline consensus may be important for imagining a next chapter.

ii. No choice

In the here and now, explanations for low or declining prevention spend tended to fall into two categories. There were local authorities with no choice in the matter, and local authorities with more room to manoeuvre. Among local authorities with 'no choice', prevention spend was, by all accounts, the necessary casualty of an ever-diminishing budget, and high and rising spend on children in care. Rising care costs were sometimes attributed to rising care rates, sometimes to rising unit prices; either way they were costs that the local authority had no choice but to shoulder:

You can't take money out of statutory services because those are the children massively at risk, there, now. (…) Because it's not defensible to suddenly say well we're reducing resources to <u>those</u>, because they're likely to die. You know, that's as stark as it is. So, I think authorities' hands were forced to say well we have to continue our services to those children but we can't offer children a service until they are those children [small laugh]. Uh, which, you know, appears really short-sighted but I think authorities' hands were forced by the fact that they simply couldn't do the stuff that is… nice to do? Um, and I would argue it's beyond nice to do, it's essential to do, but, I think that's where, you know, hands were forced, really.
Participant 8

Whilst overall council budgets have shrunk, we've seen less investment in where we should be putting more investment, which is early help and prevention and keeping families together, and, more spend – not because we've chosen to but because of the volume of looked after children and both the number of those children and the cost of providing the right support for

> *them has risen significantly. So I think councils will show a rise in trend in spend on the money for looked after children, and a reduction in the preventative end of the business, which is counter-intuitive really, but, uh that's, you know that's where we are sadly.*
>
> Participant 12

The strain is palpable; participants were forced to defend decisions that none of them had wanted to make, that they don't consider themselves to have really *made* ('*not because we've chosen to*'). In addition to the imperatives ('*have to*'), negatives ('*not defensible*', '*can't*', '*simply couldn't*', '*not because we've chosen to*'), double negatives ('*can't not*'), there are images of a struggling, ailing body ('*headache*', '*short-sighted*', '*hands were forced*', '*scraping the barrel*') suggestive of a failing system. In the two excerpts, the clauses pile high, twist and turn, as the participant seeks room to resolve the contradiction between real and ideal – to '*climb out of the pit*', as one participant put it, in which the local authority finds itself – but always comes up against the same limits, ending, defeated in '*hands were forced*' or '*sadly*'. More care meant less prevention, simple as that. In these local authorities, we can trace the close of a vicious circle: participants attribute high and rising care rates to declining prevention spend; and declining prevention spend to the rising costs of care.

For local authorities with nothing to spare, no room to manoeuvre and no choices left to make, policy entrepreneurs entreating policymakers to 'choose differently' risk attracting some ire:

> *So nobody kind - I don't think anybody, nobody actually says, that, that, you know nobody argues that isn't the case, everybody understands that.*
>
> Participant 6

There is a hint of prickliness in the tongue-tied pursuit of language strong enough to remove any remaining doubt ('*I don't think anybody*', '*you know nobody*', '*everybody*'). This participant gives us to understand that, if policymakers are not investing in prevention, it is not for lack of trying. It is perhaps no accident the two foregoing excerpts are drawn from the same site, which numbers among the most deprived fifth of local authorities in England. The same economic conditions that stoke the problem stack the odds against the solution. Local authorities most in need of the remedy are least able to administer it. At the other end of the deprivation spectrum, when asked whether their department would be able to hold firm on their investment strategy, one participant cited their comparatively privileged socioeconomic position.

> *Better than most. Better than most. Um, I know that a lot of authorities that are really sort of on the edge, have no reserves.*
>
> Participant 4

Participants from local authorities '*on the edge*' may be forgiven for seeming on edge when pressed to adopt an unworkable plan. And when it came to the need for investment in prevention, a majority of participants in four of six participating local authorities fell back on the same lament – '*it's not statutory*'.

iii. More room to manoeuvre

Local authorities with more resource were not immune to the problems described by local authorities under duress – they too were restricted in terms of their investment in prevention. But they had more room to manoeuvre. In some cases, a fierce fight had already been fought and won around the time of a poor Ofsted inspection in previous decades. The fallout from a past inspection had forced a reckoning, leading to judicious investment at a time when other local authorities were making cuts. Having invested in high quality services, these local authorities were better placed to weather the austerity years while spending comparatively little:

> *So I think we have had a number of years where we have had to make some reductions in our services. But I think the argument always was that if you invest upfront, and you then create, the change that is necessary, you will be able to save money as you go through.*
> Participant 11

Although the emphasis in discussions of prevention spend was almost entirely on local authority decision making – the commitments and constraints – one rare participant pointed the circumstances beyond local policy that helped control or contain prevention spend:

> *I think the other thing is – you've got to remember this is a county authority? We do have some really really poor areas, that are in the lowest decile for deprivation. But you've also got parts of the local authority that are absolutely rolling in it, you know? Lots of money there. Um, it's the sort of place where David Cameron's big society would work? Because you've got lots of people with lots of spare time and, and lots of resource to go and create voluntary service, you know?*
> Participant 4

While reluctant to characterise the local authority as less deprived, pointing to the pockets of deep deprivation within their boundaries, this participant clearly acknowledges that prevention spend may be low, not just because services are efficient, but because comparatively less prevention spend is required, thanks to greater community capacity and resource.

Focusing events, crises and symbols

"Problems are often not self-evident by the indicators. They need a little push to get the attention of people in and around government. That push is sometimes provided by a focusing event like a crisis or disaster that comes along to call attention to the problem, a powerful symbol that catches on, or the personal experience of a policy maker." (Kingdon, 1984, pp. 94–95).

Pandemic

The pandemic and pandemic-era policies brought major disruption to children's services, as to all key public services, and challenges '*we could not have anticipated*'. Participants spoke of being forced to learn, adapt, innovate, persevere, collaborate, work in an agile way, through trial and error. But despite the 'newness' of it all, the pandemic was also experienced by participants as a major focusing event, shedding new light on the old problem of disinvestment:

> *I think what covid has done, it has almost put a magnifying glass on all those – the dormant problems we've created over the years by reducing resources, by cutting down funding within the communities, by stripping down communities from Sure Start, (…), youth offer, youth workers, youth hubs and whatnot.*
>
> Participant 3

We are even in the same lexical field as Kingdon's 'focusing event' – covid as a '*magnifying glass*' on problems '*we've created*'. In other metaphors, the pandemic was a '*shock to a system already under stress*', a '*potential catalyst*'. As children receded from view ('*not on our radar*', '*less…visible*'), fault lines in child protection systems, carved out by the cuts, came into sharp relief. This magnification of the problem of the cuts reaffirmed several participants' faith in primary prevention, and in the '*the critical need for universal services to be out there and to be interacting with families in a preventative way*':

> *Because once that was taken away, we've seen the huge impact that it's had on local authority.*
>
> Participant 3

But if the pandemic amplified the problem of disinvestment in prevention, it also revived the conditions that precipitated their loss: economic recession. During the course of this research, the budget deficit reached record peacetime levels, as the Government introduced interim support measures for businesses, households, and services (Harari & Keep, 2021). Initially, in one local authority, these exceptional times called for the exceptional suspension of the fight for prevention funding:

> *Every year, someone will say well we need to look at the, you know, the non-statutory services. The stuff that we don't have to provide (…) One thing in the pandemic – we haven't had to get too [laughing] engaged in, in that sort of debate this year.*
> Participant 4

The reprieve was temporary however, and the majority of participants had their eye on the longer-term financial fallout. The pandemic had placed yet more pressure on local government budgets and there was pessimism, even dread and apprehension about what would follow. Participants had little faith that central government would come to their aid, despite the generally supportive rhetoric at the time.

> *I think part of the problem is, there was an expectation that might change a bit when Boris Johnson got elected, he said he would, and then the pandemic has hit (…) Because of all the businesses are closed and that, the councils haven't had the level of income they would normally have. And they've had to support a lot of vulnerable people during the pandemic. So a lot of local authorities are now facing massive budget gaps. Now there's been promises made, high level promises, you've even seen it on the news that, you know, local authorities will be helped, but there's no detail beneath that and there's a lot of cynicism that they'll get the level of money that they need to not have to cut again.*
> Participant 9

> *So the financial crisis – everyone got very worried about that stuff – um. The repercussion from that was, you know, stands to reason the money's got to come from somewhere, so it's come from, um [cough] less money to public services. Uuhm, [tuts]. So, it reminds me of a time when everyone was very worried and concerned. Goodness knows, that might happen again.*
> Participant 5

This last excerpt ends on an ominous prophetic note. Two crises, separated by a decade, are collapsed by the participant, amid a sense of déjà vu. We begin to see that the pandemic, this great focusing event that exposes and sharpens the negative consequences of austerity policies, may well prolong them. It casts a shadow over the same problem it brought into focus.

High profile child deaths

> *The system wobbles on the back of child deaths and national significant and serious incidents.*
> Participant 1

In participants' accounts, the greatest crises in child protection were precipitated by high profile child deaths and cases of serious maltreatment. The spectre of a child death, and the weight of imagined culpability, was never far from the surface in interviews (*'unless you want to be inadequate and have children's deaths on your hands, sometimes you've just gotta do what you've got to do').* Participants returned time and again to the political blame game after the killing of Peter Connelly, when media coverage was intense, public outrage at its height (*'appalling time'*, *'fear of God'*, *'vilification'*, *'that… sense of fear'*, *'really hard time actually'*, *'suddenly very worried about being the next headline'*):

> *David Cameron sort of getting involved and, um, and Ed Balls responding and reacting to that, and Sharon Shoesmith being hung out to dry in Harringay – was an absolutely appalling time, I think, for social workers.*
> Participant 4

> *I think it probably put the fear of God in a lot of DCS's* [Directors of Children's Services]*? And I think that kind of filtered down into their, within their kind of management systems and, and, you know, down to frontline practice as well.*
> Participant 5

National political and media attention to Peter Connelly's death placed the problem of childhood adversity squarely on the political agenda. But the focus was inevitably local authorities' failure to intervene. The problem of unequal and rising intervention was submerged. By the time the wave of risk-averse practice finally receded, that problem was worse (Elliott, 2020).

In theory, a crisis is also a window of opportunity. Policy entrepreneurs may work to frame or reframe the problem and press their solutions. But there is a particular difficulty. The precipitating crisis, the death of a child at the hands of a caregiver, is unspeakably terrible. It involves unthinkable cruelty. It becomes difficult to find any words, let alone deploy the logic and language of public health, which operates in the aggregate, draws attention to systemic and societal problems, de-individualises and de-personalises, displacing the child at the heart of the matter. Attempts at such a 'reframing' may appear grossly insensitive. While participants certainly described the negative consequences of the politicisation of child deaths, and several sought to debunk the myth of safe certainty (*'no certainty', 'can't guarantee outcomes', 'we have to look at our crystal balls for the future', 'best guess based on our professional abilities and knowledge and practice experience', 'sometimes things go wrong'*), few attempted a reframing.

One participant did connect the personalising crisis to the systemic problem of disinvestment in prevention:

> *But often that area gets neglected, Children in Need. And it's the biggest area of concern for me. It's the area that most children die in, on serious case reviews. And it's the area that gets least attention.*
>
> Participant 1

There is a sense, here, that more '*attention*', more resource, might be devoted to the larger group of children deemed in need of local authority support – that Children's Services' disproportionate focus on acute cases amounts to a kind of to a kind of systems neglect. This point is not new. In response to Lord Laming's report of the Victoria Climbie inquiry (Lord Laming, 2003), the Labour government published the green paper 'Every Child Matters' (HM Treasury, 2003). The document traced the continuity between child wellbeing and child protection and advocated for a spectrum of preventative services, from anti-poverty policies to Sure Start (HM Treasury, 2003), and so to the children's centres mentioned in this next excerpt:

> *And then, as part of a fundamental review, Lord Laming's report into Victoria Climbié, and the development of children's centres, by previous governments, I was part of the team that developed children's centres across the local authority.*
>
> Participant 10

So not all policies implemented in the aftermath of high-profile child deaths have been punitive or reactive. That the Laming report was scarcely mentioned by participants, or only in passing, is perhaps due to its belated effects – these inquiries are delivered long after media furore has died down, and their positive or lasting influence is not assured. Nevertheless, strategic opportunities to tackle to the socioeconomic drivers of care entry have arisen from tragic cases – if belatedly, after the blame-and-fear factor recedes.

Ultimately, whether fatalistic or solution-oriented, all participants were, to some extent, resigned to the inevitability of tragic cases periodically rocking the child protection system, setting the 'pendulum' swinging between the poles of interventionism and family support:

> *We've had two or, three or four, every sort of few years you get a big national incident and the mood swing changes and that pendulum – by that I mean, it changes to 'children are best placed at home and let's wrap around and support children the very best we can within their families and communities' to 'we need to get children out, they're not safe'.*
>
> Participant 1

This 'swinging pendulum' seems almost totemic, standing in for the societal forces that shape public and political attention to child protection. It is difficult to imagine halting or dismantling

it. But this imaginative effort may well be necessary. These crises, though relatively rare and unpredictable, are also inevitable. They are likely to continue periodically monopolising the policy agenda, and derailing efforts to tackle rising care entry and inequalities. When they arise, policy entrepreneurs might make room – open a window – for speaking sensitively and compassionately about the already alarming trends in care entry, child welfare inequalities, child poverty, and spending on preventative children's services. They might push *anew* for policies recommended in previous inquiry reports, and push *back* against a moral panic that would seek to scapegoat social work professionals and demonise child welfare-involved families (Warner, 2013a). This is starting to happen (Slawson, 2021).

Damning Ofsted inspection

A negative Ofsted inspection was, in many participants' accounts, a key narrative turning point:

> *Um, obviously they then had a bad Ofsted […], which I think gave them a bit of a wake-up call.*
> Participant 14

> *And then, things sort of went a bit pants. So [that year] we had a joint area review, so it's a multi-agency inspection.*
> Participant 4

> *We were deemed inadequate by Ofsted. [Tuts], and that's been quite a bit of a seminal moment really in Children's Services history here in the local authority.*
> Participant 11

On the one hand, a poor inspection was a calamity. A crisis. According to participants, Ofsted applied pressure on top of pressure, introduced the potential for devastating reputational damage, led to unfair dismissals and poor morale, hijacked the policy agenda and local authority finances, introduced intense organisational anxiety and perverse incentives, fuelled risk averse practice, came down harder on local authorities in the North of England, and sometimes even led to dubious judgements (*'we received an Ofsted outcome of 'good', yeah? At that point? Whether it was good or not, I think that's something to debate [short laugh]'*). It brought disruption, distraction and debt, intensifying budgetary constraints:

> *The council falls over, the partnership falls over if it goes badly wrong. Costs millions of pounds to get it back on its feet again as well.*
> Participant 11

But the recovery planning and the work that goes into recovery planning from an adverse, inspection is phenomenal, and local authorities have to borrow money to get themselves out.
Participant 10

Yeah. So there's no new money when you go into intervention, it just costs you a lot more and you have to reprioritise your focus.
Participant 1

On the other hand, and for all their justified ambivalence, participants seemed to depend upon Ofsted applying political pressure. Some were able to use a negative judgement, or the threat of one, to leverage additional investment in Children's Services. The greater the risk, the greater the leverage, and the wider the window of opportunity.

They recently had to put [millions of] pounds in. That's because they'd become inadequate.
Participant 1

Inspection does play into this an awful lot, rightly or wrongly. I always think, why do you have to wait for someone to come in and tell you that you're inadequate and that children aren't safe in your area for a local authority to take it seriously and invest. It's sad [laugh].
Participant 14

And then the council finds itself in a position where they get heavily criticised by the regulator, and then from a corporate and political point of view, you're left with a decision there to say, well you know what, a poor Ofsted inspection carries a corporate risk? Yeah? It, it, it generates a negative public perception of the council, so although we've got financial challenges we're going to have to invest.
Participant 2

Children's in part were protected because, you know, it's the one thing that Chief Execs and leaders of councils can't afford to get wrong because of the reputational issues, the scrutiny, and the massive financial cost that it costs to go into inadequate, and go into intervention.
Participant 1

Some participants, with the benefit of long hindsight, were able to put a positive spin on what had once been a crisis – a poor judgement acted as a '*shock*' to the system, a '*wake-up call*' that could spark new vision and usher in change, as well as crucial investment ('*Were able to come up with a vision that was like 'let's fix this'*). And so, an inadequate inspection outcome was to be avoided at all costs, and yet…

Me and [my colleague] sometimes kick ourselves, 'cause we think, if we'd have got inadequate, it wouldn't have been on us, and we'd've' got loads more money [laugh] 'cause they have to.

Participant 14

When we were last inspected and this didn't go down well – and I'm not sure I want this repeating too far and wide – it would have been better for [the local authority] to be judged inadequate at that point. It wouldn't have been good for the people in the service. It wouldn't have been good for social workers. But actually in terms of the investment that potentially would have had to come then, we perhaps would be further down our journey now. And we're doing ok but there is that perverseness, you get investment if you don't do well but no investment if you're doing well [smiling].

Participant 10

Budgets – a special problem

"Budgetary considerations sometimes force items higher on the governmental agenda, acting as promoters. At other times, budgets act as constraints, holding some items low on (or even off) the agenda because the item would cost more than decision makers are willing to contemplate." (Kingdon, 1984, p. 105).

In Kingdon's analysis, budgetary pressures are a 'special problem', deserving of their own chapter (Kingdon, 1984). These pressures have dominated participants' interpretations of care and finance indicators, their narratives of austerity. In this section, we turn to them again, focussing more directly on how they constrain or enable efforts to tackle care entry and its socioeconomic drivers.

Budget as constraint

At local level, as we have seen, budgetary considerations were, overwhelmingly, a strict constraint on local authorities' ability to tackle care entry. They had little leeway:

So if a local authority, if they don't balance their budget, you know, they've got a legislative duty to balance their budget. And if they don't balance their budget they can be taken over by Whitehall.

Participant 9

The consequence of reduced budgets was a litany of loss. Children's services were '*stripped*', '*restructured*', '*consolidated*', '*slash and burned*'; investment '*dwindled*' and there was '*under-investment*', '*de-*

investment', and investment not '*sustained*'. Funding for early help was '*lacking*', '*cut*', '*redirected*', '*removed*', '*reduced*', '*significantly contracted*', '*tiny*', '*lost*', '*taken out*' and '*taken away*'.

Children's centres were '*closed*', '*cut*', '*lost*', '*condensed*', '*let go'*, '*mothballed*', '*restructured*', '*hollowed out*', '*morphed into something else*', their offers '*diluted*'. Children's centre staff and managers were '*cut*', '*reduced*', placed on '*temporary or fixed term contracts*':

> *We've managed to maintain a network of centres, although they have um [pause]. Well the council like to say [it's] retained all its children' centres, if we look at it, the offer's been diluted significantly, if I'm just being really candid with you.*
> Participant 6

> *Yeah I mean obviously in some local authorities have closed children's centres. They've had to do that.*
> Participant 7

Other specific services were singled out for special mention. Family support had been '*reigned in*', '*whittled down*', '*pared back*'. Youth services '*cut significantly*', '*decimated*', staff '*removed*'. Drug services were '*annihilated*', '*cut*', '*withdrawn*'. School improvement budgets were '*significantly reduced*', school effectiveness officers '*cut*'. Third sector investment programmes were '*cut to the bone*'. Disability support was '*halved*', the scope of health visiting '*reduced*'.

On occasion, these same budgetary constraints were framed as, if not beneficial, then at least opportunities for greater efficiency and innovation, and sharpened priorities. In the following example, cuts ostensibly improved services and benefited children:

> *We reduced the cost of having some of the people located in different places and having separate management and senior management structures, but actually what we saw then, in the first year of that service, was greater impact in terms of preventing children coming into care or onto CP plans, so.*
> Participant 8

One participant from the least deprived participating local authority insisted that they were always on the lookout for further savings, having made great strides – though this merely served to emphasise the remote and receding prospects of further efficiencies. There was no more low-hanging fruit:

> *So we're always looking for ways in which we can work more effectively, more efficiently, but I think, we're probably coming to the end of that. My sense of it is that I don't think there's*

> *anything more, realistically, that we could, do to really save things from children's services, I think we've probably done a lot of the easy stuff, and we've done some of the hard lifting as well. And I think if you take any more money out, then I think there will be consequences.*
> Participant 5

There were several references to cuts having spurred innovation: the council '*had to be thinking of new initiatives, new initiatives*'; the places '*that do very well*' were '*thinking outside the box and outside of the ordinary'*. The steep drop in funding was '*probably when we've had to be at our most creative*'. And local authorities were constantly having to '*reinvent ourselves*'. In one case, innovation took the form of coproduction, with local priorities decided in consultation with families:

> *So I think it's been a little bit sort of 'back against the wall' but I think for me, my experience of that has meant we've had to think very precisely, and find out what families' lives are actually like, things that they are having to deal with on a day-to-day basis. And therefore – think <u>with</u> them?*
> Participant 5

In this participants' account, truncated in the excerpt, the concepts of innovation ('*more innovative*'), efficiency ('*maximise value out of every penny*') and ethics ('*think <u>with</u> them*') are fundamentally intertwined. The local authority's priorities, and therefore their efficiencies, derive from a strong family-oriented ethos; families' voices were foregrounded:

> *They were very clearly saying 'we don't need more of anything. Can't make sense of what you do already'.*
> Participant 5

For the most part, however, the idea of innovation was synonymous with a kind of service survivalism:

> *Kept some money to keep those running. But it really was on a shoestring, and wasn't, you know, it was sort of turn the lights out, keep the heating down.*
> Participant 1

> *Well they'd survived in part. I think there's already been some closures of children's centres but we've got [some] left at the moment.*
> Participant 13

> *It's easier to… breathe life into something that already exists rather than stopping it, and then, you know, please god when better times come you can invest back in those things to resurrect it again.*
>
> Participant 5

When the bar is this low, the strategic retention of a service, albeit in diminished form, may fairly count as creative, while local authorities keep the faith in prevention and await a kind of policy second coming – a service 'resurrection'.

Nor was mere retention necessarily straightforward:

> *From my experience what we were doing is every two years, we were reshaping, making cuts, making savings and reshaping a service. And that has continued throughout, and I have just finished my last remodelling exercise to save more money.*
>
> Participant 10

The prefix 're' and the verb 'make' are doing a lot of work in this excerpt ('*re*shaping', '*re*modelling', '*making* cuts', *making* savings'), emphasising action and creation even as services are withdrawn. This feature of the language speaks to the real effort required to merely save a service. Innovation, perhaps, but a desperate kind of innovation.

And in the places where innovation took the form of a tactical withdrawal, participants described prioritisation as borne, not of research, consultation or choice, but of dire necessity. I counted 58 excerpts across 14 interviews pertaining to the prioritising of acute services, over prevention, under conditions of resource constraint – by far the largest code. Whether participants spoke in terms of prioritising certain children (children at '*high risk*', '*likely to die*', '*your here and now children at immediate risk of harm*', '*looked after children*', '*children with very complex multiple needs*'); or in terms of prioritising duties and services (the '*intensive end of the work*', '*statutory responsibilities*', '*statutory services*', '*protection*', '*statutory duties*', '*social workers*', '*the targeted stuff*', '*at the acute end*', '*higher up the continuum*', '*all response*', '*far more protection*', '*extensive placements*'), the message was the same. Choice was heavily constrained: '*not because we've chosen to but because*'; '*what must you do, because it's statutory*'; '*pushed into doing like more of the targeted stuff*', '*they've got to spend that money on that statutory thing*', the local authority '*just has to spend that money regardless of whether it's there or not*'. My concluding blue-sky question, 'if you were given unlimited funds, what's the first thing you would do?' was sometimes met with incredulous laughter and a rapid response, revealing just how constrained participants' usual horizons were:

> *Ah ha! [Laughing]. I'd put it all in early help.*

Participant 7

[Laugh] Unlimited resources? I would put one or more mental health support worker in every school.

Participant 9

Budget as enabler

But budgetary considerations may also raise the status of some problems relative to others. A fair number of participants felt that local authorities had prioritised children's services at the expense of other local authority services. Sometimes motives were cast as pure ('*right thing to do*'), sometimes less so ('*the, um, reputational issues, the scrutiny*'), but the end result was the same: 'problematic' Children's Services were likely to remain on the local authority agenda and attract a greater share of funding relative to other departments:

I mean that said, Children's Services, were prioritised by members. And generally they are. But quite frankly they're often seen as a drain on the public purse.

Participant 1

So I've been very lucky that Children's Services has always been at the forefront of the local authorities that I've worked in, uh, in terms of meeting demand, uh, and meeting needs.

Participant 3

Not all participants went so easy on their respective local authorities. One participant felt that adults' services had been prioritised to a greater extent than children's services, despite the potential to make a greater difference by targeting the early years. Another felt that the political incentives simply did not favour Children's Services:

To somebody like me, the absolute worst thing in the world is having children not well looked after, or old people, but to a politician, that doesn't win them votes. What'll win them votes is, whether the bins get emptied. Are there any potholes in the road, are they going to keep the local library open?

Participant 9

It's fair to assume an implicit critique here. It lies in the stark contrast between the moral conviction of the participants' own position ('*absolute worst thing in the world*'), and the blunt framing of political priorities – politics as gamesmanship ('*doesn't win them votes*'). Though waste disposal, infrastructure and community spaces are real competing interests, they are made to seem somewhat trivial and parochial next to the council's caring responsibilities ('*potholes*', '*local*

library'). As a result, the end of the excerpt tilts towards cynicism, conjuring, not competing notions of the public good, but naked political ambition. However, budgets cuts did seem to have clarified broad priorities; on the whole, Children's Services seemed to be one of them.

Within Children's Services, restricted budgets seemed to have raised the status of some high-cost issues. The costly dependence on agency staff had clearly risen up the agenda:

> *And social workers, and having to rely on agency social workers which costs twice the price.*
> Participant 1

> *So, we try to stay within budget, in terms of staffing?*
> Participant 3

> *We used to spend […] million[s of] pounds on agency staff.*
> Participant 11

Participants were considering, not just nurturing a strong, stable workforce so as to wean the local authority off this dependence; they were also proposing to make better use of professionals without a social work degree, such as family support and youth workers. This focus on high-cost workforce issues could, in theory, favour a more professionally diverse, less risk-averse workforce, and promote a greater focus on prevention. One participant described these non-social work staff as '*differently qualified*'. The inherent value of these professionals was clearly being recognised, if not correspondingly remunerated. To the local authority, they represent value-for-money:

> *And just looking at it in cold sort of financial terms, that doesn't need a qualified social worker to do, necessarily. It needs a skilled family worker who's good at negotiating, mediating, really good at engaging young people who might be feeling quite disaffected, and parents who might just feel like they've reached the end of their tether.*
> Participant 8

But by far the most expensive problem, and the one that took centre stage, was the cost of placements for children in care. This was raised in every interview. Some participants essentially diagnosed market failure in the form of excess demand, which they attributed to creeping privatisation:

> *Those placements cost a fortune because the private sector just charge whatever they want.*
> Participant 9

> *External residential placements, which have trebled … probably in the last seven or eight years –crazy money. And they are the biggest thing that are zapping the budgets in Children's. Um, so that's been a big thing.*
>
> Participant 1

According to the Competition and Markets Authority (CMA), the reasons for privatisation are 'debatable' (Competition and Markets Authority, 2022). Some have blamed changes wrought by Labour policies, which continued apace under the Conservative-Liberal Democrat Coalition, through to the present day (Carey, 2019). Others trace the problem further back, to the erosion of the welfare state consensus and Thatcher's push to privatisation (R. Jones, 2019). Whatever the causes, the hyping of high-cost problems can set the wheels of policymaking in motion. The CMA has since reported on the deep dysfunction in the children's social care market, and recommended that national government provide additional support to local authorities (Competition and Markets Authority, 2022). The final report of the Independent Review of Children's Social Care additionally proposes a windfall tax on major profits of the largest providers to contribute to the costs of improving the care system (MacAlister, 2022). A full Government response to the CMA report is forthcoming. Until the cost of placements are addressed, safely preventing care – or at least narrowly avoiding it – is likely to remain a policy priority. If the cost of care falls, the problem of rising care entry might slip down the agenda. But equally, if it falls, there is likely to be greater scope for investment in prevention and quality improvement. Unhooked from financial exigencies, policymakers' commitment to safely reducing care entry – their values, including their belief in prevention and a family orientation – might then truly be put to the test.

Of course, the problem of ever-more acute spending is not solely the province of the children's social care market. One participant noted the parallel high-cost problem in education, with pared-back pastoral support in mainstream schools driving children into the special education sector. This seemed to be yet another intractable problem:

> *So our expenditure in terms of um, S-E-N support, supporting children in their mainstream schools, even if they're on an Education Health and Care plan… is tiny. I think we spend – I can't remember what the percentage is, but it's many millions (…) goes on children in special schools. I think it's cultural. People are pushing children through the system to escalate the children. And I think, sometimes when I looked into that in terms of S-E-N that was because, schools are saying, well we have no longer got a learning mentor, we've had a reduction in our pastoral staff, all earlier support services has been diminished, we can't*

> *meet this child's needs. And then look what happens, it costs us something up to like 80 thousand a year for a child in an independent residential school. Now I'm not saying – you know obviously all children can't remain in their maintained schools, but we've got a disproportionately high number of children in special schools… in this local authority. That's another example of the expenditure at the acute end, and we're having similar conversations with our schools to say – we need to stop spending here, and we need to reinvest in S-E-N support. Do you know what I mean? But while we're haemorrhaging money here, you don't have it to invest in that. So some of it's about culture change as well.*
>
> Participant 6

The point about culture change is an interesting one, given the cold hard material pressures acting on interrelated systems. Efforts to change organisational cultures might count among Kingdon's 'third' type of program prioritised when budgets have shrunk – programmes that cost little, achieve little, and save little (Kingdon, 1984). But another participant insisted that, in the move towards more ethical social work practice, leadership and cultural 'priming' of the system for later more substantive change was an important step:

> *Now all the work around the culture, it don't cost that much, but it does take investment of your senior leaders and it does take for your senior leaders to change their behaviours so that the organisation starts to behave differently, and when you start to do that you can build momentum to start to make that shift. But it is a challenge.*
>
> Participant 11

Cultural or organisational change is not likely to alleviate the financial pressures driving demand for costly acute and specialist services. However, it does not follow that it is inconsequential. Drawing on the concept of radical incrementalism (Schram, 2015), Timor-Shlevin et al. argue that policy entrepreneurs can build on "minor practices of resistance" to effect a broader paradigm shift (Timor-Shlevin et al., 2023, p. 30).

Certainly, some participants tended to focus quite narrowly on the nature of the relationship between staff and families, focusing on the importance of training, or the implementation of practice models:

> *So, relationship-based practice models of any kind.*
>
> Participant 13

> *We've brought signs of safety in, like I was saying.*
>
> Participant 7

An evaluation of Signs of Safety Pilots attests to the popularity of social work practice models: in 2020, Signs of Safety was being used, 'in some form', in a majority of English local authorities (Baginsky et al., 2020). Practice models may be beneficial, and there is some suggestive evidence from Wales of that survey respondents from local authorities with declining care rates were more likely to be using the 'outcomes framework', which requires local authorities to agree outcomes in collaborative work with families (Wood & Forrester, 2023). But the jury is still out. An evaluation of a Signs of Safety pilot found no evidence of improved practice or outcomes for children and families (Baginsky et al., 2020). Given the wider pressures on the child welfare system, these practice-focussed solutions might invite scepticism. However, if constrained budgets prohibit more ambitious action on those wider systems pressures, rather than dismissing new frontline efforts as faddish, a radical incrementalist (Timor-Shlevin, 2021) might work to embed anti-poverty practices in these popular practice models, raising consciousness and setting the scene for eventual action on the socioeconomic drivers of care entry.

The catch 22

In summary, reduced budgets constrained investment in prevention while raising the status of high-cost problems and small-scale solutions. Instead of investing in preventative services for longer-term cost savings, many local authorities seek fast and marginal savings at the level of acute services in the hopes of freeing up finance. These hopes, however counter-intuitive, were sometimes realised. One local authority in particular was spoken of as having broken out of the vicious circle, and I will cover their policy strategy in a separate piece of work on the policy stream. But the problem stream foregrounded voices from local authorities caught in the problematic logic. Sometimes, the only response to a problem is itself a problem – and painfully obvious even to those policymakers calling the shots:

> *But you need to [small sigh] invest more resource into your early help services, and it's how you shift, it's how you get that shift, and it's a lot easier to say it than it is to do it, because you're having to deal with your <u>here</u> and <u>now</u> children [tapping the table with fingertips to punctuate these syllable], who are at immediate risk of harm, but you also need to deal with what's gonna come up, and the only way you can do that is by investing in early help, but sadly for early help, because they're not a statutory service and they don't get inspected and they're not [intake of breath] they're not [breath out] scrutinised in the same way, um, then they don't get prioritised when it comes to spending.*
>
> Participant 14

This last sentence lengthens, the prepositions pile up, the tension mounts, and the participant runs out of breath trying to contain the contradiction between principle and practice – before the final weary sigh through to the inevitable conclusion. These same contradictions were expressed in myriad ways. With understanding came helplessness and frustration:

> *I understand why that happens under a finite budget, but you know my opinion is that's a false economy. It's not only not good at delivering better outcomes for children and their families, it's also more costly and reactive service.*
> Participant 6

> *I don't think there's an easy answer but you try to balance that level of risk in the community, without having the available resources to support children and families safely in the community. And that's the dichotomy you're grappling with really.*
> Participant 2

> *You know local authorities have had to make very, very difficult decisions – how do you balance off stuff that you know is right to do but isn't statutory, [tuts] against your statutory obligations to safeguarding. How do you balance the books.*
> Participant 10

When discussing the financial catch 22, several participants employed metaphors of balance, seeking an equilibrium that often hadn't yet been achieved ('*balance that level of risk*', '*balance off stuff that you know is right to do*', '*balance the books*', '*local authorities have been spinning plates for a very long time*'). Sometimes the sought-after balance was between ethics and economics, sometimes expenditure on prevention or reaction. In either case, the key question was *how*: how to achieve that balance, '*turn the tanker*' and shift expenditure upstream: '*it's how you get that shift*'.

Problem definition

Comparisons

"Problems sometimes involve comparisons. If one is not achieving what others are achieving, and if one believes in equality, then the relative disadvantage constitutes a problem." (Kingdon, 1984, p. 111).

i. Defensive

As we saw in this chapter's section on community risk factors, it is in the comparative mode – in the realm of area-level associations, of differences between places on average, rather than within areas over time – that participants spoke with greatest confidence of the role of deprivation. In

discussions of place, 'deprivation' came to the fore. And yet, these comparisons sometimes seemed more defensive than diagnostic:

> *The size and nature of that local authority is really small compared to here, geographically and financially and population size anyway, so it's really difficult to make that comparison. So I think in terms of some of the trends we've talked about, I think deprivation and economic factors, you can't get away from that, that's staring us in the face.*
> Participant 12

> *And the deprivation. I'm not saying [they don't] have deprivation, but we have got more deprivation– and there is some in the North, obviously in [other Regions] as well, but you need... When we do this chart, with our statistical neighbours, it does not mean an awful lot to us.*
> Participant 7

These participants *make* comparisons to *resist* comparison, sensitive, perhaps, to some suggestion of negligence, some failure. This defensiveness may be well-founded. Benchmarking has been used by Ofsted to identify places that might be performing poorly ('*Ofsted and the DfE and that look at that stuff*'); local authorities are expected to answer for their statistical differences. When explaining or justifying differing trends, participants variously pointed to their unaccompanied asylum-seeking population, their younger population, their ethnic diversity, the courts – external forces not within their purview. Deprivation was by far the most common explanation. Markers of deprivation are used to identify the 'neighbouring' local authorities used in my plots, so the defence might be overdone – though of course, the indicators factored into neighbour-matching may not fully capture differing socioeconomic contexts (Department for Education, 2015). Whatever the legitimacy of the defensive pose, it had the curious effect of, on the one hand, emphasising the role of deprivation in shaping demand, and, on the other, dismantling the validity of the very comparisons that prompted the insight. Deprivation explained difference to explain it away.

This next excerpt captures a participant's response to a plot I had shared. When I pointed to the trend line representing the deprivation quintile to which their local authority belonged, they countered by emphasising the scale of the inequalities within the local authority's borders:

> *Ok. Yeah on the basis of average and therein lies the difficulty really with this local authority (…) I mean, I think it's really difficult with this authority particularly, because as I've said to you, the inequalities, health inequalities and everything inequalities across the*

borough, is incredible, in a relatively small area, so I do find it hard to generalise, and to see this local authority in that line [of the plot].

Participant 8

The participant draws attention to within-area inequalities to push back against the characterisation of the local authority as less deprived overall. Although the word 'inequalities' appears in triplicate, they are not really the point. They are the defence against a perceived under-estimate of local challenges. This kind of comparison may well be justified, but when it comes to galvanising local action on the socioeconomic drivers of care entry, it may also be unproductive.

A pre-emptive defensive pose was sometimes adopted by participants from seemingly exemplary local authorities:

Interviewer: Yet spend does remain sort of higher in [your local authority] than in some other areas.

Participant: I think that's absolutely right. So, you know, that's one of the challenges that we face. I do have still quite a chunk of the budget that goes into early intervention and prevention. But that, I think I've already indicated, that's in scope now because if I've got to reprioritise in order to protect our statutory service then that's what I'll have to do.

Participant 13

What I had assumed would be a strength of this local authority relative to its statistical neighbours – attending to prevention spend as a socioeconomic determinant of care entry, sustaining investment – was experienced by the participant as a problem ('*that's one of the challenges we face*'). The logic of the challenge is not spelled out, but it seems possible that, rather than reflecting the fixed and principled stance of the local authority as a whole, the emphasis on prevention had been staked out by key policymakers in children's services, under pressure to relent. The case for prevention may be weakened if other local authorities are seen to be working with less. Benchmarking may be more likely to precipitate a race to the bottom than positive emulation. The radical potential of comparison may be neutralised, even weaponised.

When local authorities did not resist local comparison, they often compared favourably. Having plotted small-area Income Deprivation Affecting Children (IDACI) against care rates, one participant relayed a pleasing discovery:

It was an outlier in the opposite direction, it actually had lower numbers of children in care per ten thousand [laughing] than most of the others.

Participant 4

Here, in the comparative context, the problem (an outlier for the local authority, with worse outcomes) is rendered less problematic (an outlier relative to other local authorities, with better outcomes). This local authority's problem in absolute terms is also a relative success. Like the defensive comparison, the contented comparison could be unproductive – but for the tendency for success to seek replication. A certain kind of Ofsted-approved success inspired mimesis.

ii. Mimetic

Invariably, a 'good' or 'outstanding' judgement drew broad attention, inviting pro-active, generative, curious comparison:

> *Yeah so we were looking at local authorities who've got good or outstanding in their Ofsted inspections (…)*
> Participant 6

> *But also, I think people around the country looked and went 'what happened there'? You know, (…) that drew quite a lot of attention (…)*
> Participant 11

> *(…) they are outstanding and we went over to some seminars (…)*
> Participant 9

The judgement was the inciting event. After that, policymakers were clearly doing the work – of making trips, sharing strategies, comparing contexts, hosting seminars. Participants mentioned '*improvement work*', '*improvement boards*', '*improvement advisors*', and the Department for Education-funded '*Partners in Practice Project*'. Clearly, there is a thriving improvement industry devoted to the spread of good ideas. In *Agendas, Alternatives and Public Policy*, Kingdon refers to 'spillover effects', whereby a precedent in one policy area may be used to lever open a window of opportunity in an adjacent policy area (Kingdon, 1984). In England, the essentially comparative improvement industry may foster the geographical equivalent:

> *But you know, that, then you scale that up by 150 local authorities and what does it look like.*
> Participant 11

The local-to-local improvement network may be considered a kind of comparison-generating machine, and policy incubator. There is always a risk that ideas sweeping the policy community may turn out to be fads, depoliticising and decontextualising political and socioeconomic problems. For example, local authorities with low care rates were not as quick to acknowledge

their socioeconomic advantage – or if they did, it was more as an afterthought ('*I think the other thing is it – you've got to remember this is a county authority?*'). However, 'successful' local authorities' tendency to attribute their success to investment in prevention was clearly useful in the diffusion of policy ideas. The interviews yielded examples of policymakers from exemplary local authorities urging others to tackle the socioeconomic drivers of care entry by reinvesting in prevention – even when it's hard:

> *So part of our approach when we go in and do that whole system change is to actually say, you know, you need to invest in some of this because it'll get a little bit more expensive to start off with, but you'll soon see the benefits of it.*
> Participant 6

iii. Distributive

For some local authorities, placed-based comparison clearly had operational value. Some participants discussed the tendency to, or potential for, targeting services to those more deprived areas:

> *So for example, in the North of the local authority – I mentioned the difficulties there. It has a lot of social problems (…) But actually most of our partners are based [elsewhere?] (…) And that's taking a long time to turn around? We're just setting up a new multi-disciplinary team now, to work with kids […] there? Um, you know, because there is that gap, there is that sort of dearth of service going in. So I know there is not a perfect distribution of service.*
> Participant 7

One further within-local authority comparison shed light on the problem of under-investment in children relative to adults. A participant was struck by the discrepancy in spending, highlighted by a local researcher:

> *I mean obviously I'm not from adult services world but I do remember seeing some slides – it was [names a researcher at a local university] actually, shared them with us. And you could actually see the expenditure on children compared to the expenditure on adult.*
> Participant 4

This comparison draws attention to a chasm between the local rhetoric on the importance of investing in the early years for maximum life course impact, and the reality of how local authorities prioritise, in cold hard cash terms. In this case, it spurred the participant's case for a

shift in spend towards primary prevention for families with children. Distributive comparison makes the case for redistribution:

> *And a lot of discussions we have with the large hospital trusts, and things like the provider alliance, is about the acute, and they're talking about the frail elderly, and they're talking about, do you know what I mean, they're looking at the end of the lifespan. And there's all that expenditure, some of it could be actually prevented by ensuring children have a healthy start, people didn't smoke – d'you know what I mean, it's all, some of that is preventative.*
> Participant 6

Many more local authorities and local partners might be invited to engage in this kind of comparison, and test their ideals against their bottom line.

Also discussing funding for Children's Services, one participant engaged in cross-sectoral comparison, to powerful effect:

> *Because the NHS is a national health service, if a part of a local system is struggling but another part's got surplus, there are ways of the system moving the money round. (…) So in health, it's kind of been recognised in health, particularly since Mid-Staff – I don' t know if you remember all the scandal at Mid-Staffordshire when quality got really poor and it's because the board were putting finance first – that any savings in any one year of a service of more than about 2.5-3% is too big an ask… without affecting the quality of the service. I'm sat in council meetings at the moment where they'll say we've got to take 15% out.*
> Participant 9

This participant resists the widespread normalisation of the cuts by applying a health service financing perspective to local government. All of a sudden, this figure of 15%, which might have paled in comparison with some of the other figures cited in interview, seems very stark. The whole inflexible system of Children's Services financing is called into question.

iv. Intuitive

Comparison inspired rhetoric. At a basic level, participants seemed to powerfully identify with the story of place-based inequalities; it was a framing that resonated with the local experience, a story they too could tell:

> *The poorest, the most deprived, the most depressed, get hit hardest. You look at the research that Bywaters, Morris and Featherstone et al. have done around, you know, being in Wokingham as a child and being in Blackpool as a child – eleven times more likely to come*

into the care system if you're in Blackpool. And we've got that here, in the sense of, there's a [place in our local authority in the centre], and [a place on the outskirts with a similar name], and if you're in the centre you're ten times more likely to be in care.

Participant 11

Professors Paul Bywaters, Kate Morris and Brid Featherstone – these child welfare inequalities researchers have clearly had some success in disseminating their research and defining the problem, making their mark on this relatively insular local policy network. 'Inequality' may make for a more intuitive story of the problem than 'poverty' alone. The story may help to hype the problem and draw policy attention – provided it is focussed on solutions.

Categories

i. Universal, targeted, proportionate universalism

I have suggested that 'prevention' can be made to mean almost anything. Superficial agreement on the need for prevention masked deeper disagreement over what kind. This is evident in the familiar discursive wrestling over the framing of children's centres, mirroring the wider political discourse. Compare the two excerpts below. The first mounts a critique of children's centres as insufficiently targeted; the second anticipates and gently satirises that critique – adopting similar language, but with a slight sensationalist, tabloid-headline twist – before moving to contradict the accusation:

And we had lots of well-meaning mums and families coming to the, you know, baby massage and baby yoga or whatever it was that they were doing, and I couldn't help thinking, I'm not sure these are the right families that [gentle laugh] we should be supporting [slight cough, or perhaps scoff]. And the families that really needed our help – weren't coming anywhere near the children's centres, it seemed to me.

Participant 5

I mean you know, the cliché about the oh, when children centres were all opened it was all yummy mummies with range rovers having baby massage, you know. Yes there might be some baby massages at some of our children's centres, but the children's centres are targeted, and in fact they have to report what proportion of contacts they're making with families from the most deprived areas within their catchment area, so there's a real focus on, ensuring that we're focussing on the right families.

Participant 12

What works in one place (large, rural local authority) may not work well in another (urban). Ultimately, both participants may speak in the best interests of their communities. But by agreeing to the very premise of the critique – children's centres are defensible to the extent that they are targeted – the second participant has given ground. This becomes clear mere sentences later, when they reveal the fight on another front, their striving to reassure families who would see children's centres as a gateway to more acute intervention:

> *(…) there's a feeling that has been communicated that they're only for those families that maybe are really, really struggling – or might be potentially within the radar of social care – whereas actually, uh, that's not what they're about, they're part of that prevention and early help offer, and, you know, a family can get support from there without… thinking that, 'oh, that's, that's just one step before my children are removed from me'.*
>
> Participant 12

And so the discomfort is practical as well as discursive. Is raises the question of whether it is possible to target families '*who really need help*' without changing the nature of that help, intensifying surveillance, intervention and stigma – in effect, without moving from one category of service to another, primary to secondary. This next participant also conjures the voice of the children's centre critic, but pushes back, not just on the accusation that services are insufficiently targeted, but on the substance of the criticism itself. They mount a defence of '*that soft stuff*':

> *When people were originally saying right you need to stop all this universal nonsense like stay and play sessions, you need to actually just do targeted stuff because that's not gonna make the most difference. What we went back and said to them – we identify the families who need the most support through those universal services. So it may be a mother who's coming to the stay and play session who then stays behind and talks to the worker, and that she didn't sleep last night because, you know, the baby was keeping her awake and father was… you know it's that soft stuff. And then families build up that trust with those workers and then obviously are more open to then saying what their lived experience is. You know so, it is important to continue to have, like, baby massage services. People think it's all flowery and nice to do, but fundamentally they're really important in terms of promoting parents' bonding, attachment. So we've tried to maintain that universal proportionalism. Is that the right word? We've always tried to maintain that. But we have actually been pushed into doing like more of the targeted stuff.*
>
> Participant 6

This participant negotiates a compromise between the categories of universal and targeted, applying the concept of proportionate universalism (or, in the participant's own words 'universal proportionalism' – an important concept that could do with a new name): services available to all, but at a scale and intensity proportionate to the degree of need (Marmot, 2010). These matter, because they frame the problem and inform solutions. And yet that last sentence sounds an ominous note ('*we have actually been pushed into doing like more of the targeted stuff*'). Pushback may be weakening, the balanced approach difficult to sustain. Prevention is increasingly acute.

ii. Public health

That participants' application of a public health concept – proportionate universalism – shows how disciplinary categories may inform responses to the problem of rising care entry. In making the case for prevention services, participants used common public health metaphors of 'firefighting' and 'going upstream':

> *And I said to the DCS [Director of Children's Services], you know you're spending all this money on expensive fire engines, putting out fires, when you could invest in smoke alarms and stop that from happening. If you want to reduce caseloads in children's social care then you need to invest in early help.*
>
> Participant 6

> *So you're putting everything upstream. And if the stuff you do upstream is effective, then you'll have less kids coming into care*
>
> Participant 11

They applied classic health inequalities – now child welfare inequalities – framings to the problem of care entry ('*you're ten times more likely to be in care*'). Participants were sometimes explicit about their '*public health perspective*'. And one participant who had drawn closer to public health colleagues during the pandemic was optimistic about working together in future to address the social determinants of child welfare interventions:

> *How can we really focus on a whole community approach that prevents things from ever getting to statutory services - and that's something that I'm so interested in, like I've done twenty years in statutory services, but the thing I would love to do is to is just be able to really reduce that need for those services*
>
> Participant 8

But every discipline may have its blind spots. The public health approach may have important weaknesses. For example, the language of discrete 'risk factors', absent a conceptual model of how these factors interact, can direct attention to clusters of more proximal, behavioural factors, dragging policymakers back downstream – especially when scarce resources incentivise targeting:

> *And we've looked at some of those the risk factors we know are risk factors in terms of care entrance, so we're looking at domestic abuse, substance misuse, adult mental health issues, we've also included on there persistent absence, school exclusions, children in alternative education provision, and we're also looking at children who've DNA'd to [did not attend] CAHMS services – child and adolescent mental health services.*
>
> Participant 12

Children's Services' increasing reliance on data systems to target services and interventions to particular families raises questions about bias in data systems, the individualising of social problems, and increasing digital surveillance (Redden et al., 2020):

> *And so what we're going to be embarking on now is by using data and intelligence* (…) *to profile families and identify, you know, [a certain number of] families who are engaged with early help, at risk of sort of escalating to social care.*
>
> Participant 12

The intention here is of course to support the families who need it most. It is not just about intervention – departments beyond Children's Services are asked to prioritise these families' needs. But the language of policing and surveillance creeps into the excerpt ('*intelligence*', '*profile*'), raising broader questions about rights and power dynamics (Redden et al., 2020). Other participants were more openly sceptical of the data-science orientation, and spoke of data-driven approaches as flattening complexity and eliding families' lived experience ('*that's where it starts to get complex, and me and [my colleague] have discussed this before because… the answer doesn't lie in data*'). So while the public health lens may be useful in defining and addressing problems in Children's Services, the category comes with baggage. There is a need for caution and disciplinary humility when applying public health concepts to social care problems.

Summary

In this qualitative study, I have conducted interviews with policymakers, eliciting narratives of change from across a range of local contexts, and co-constructing interpretations of recent trends. Using thematic analysis, then applying a policy analysis framework derived from Kingdon's multiple streams approach (Kingdon, 1984), I have delved deeply into the problem

stream, assessing how local policymakers consider the problem of care entry and its socioeconomic drivers.

In summary, across interviews, and despite a crowded problem stream, care entry emerged as a central problem. The number of children in care or entering care was a powerful, widely respected indicator of a major problem. The direction of this indicator defined the success or failure of local programmes, and policymakers were steeped in these data. My core problem comes pre-hyped.

Finance indicators were also important, but the indicator of note was 'acute costs averted'. Despite a ubiquitous narrative lamenting the loss of preventative services, 'prevention spend' was a relatively neglected indicator. It seemed weak. Participants weren't as familiar with it, they found it tricky to interpret, and it was thought to conflate primary, secondary and even some tertiary prevention. It may mask as much as it reveals. Policy entrepreneurs should continue to forcefully advocate for a better indicator of local authority commitment to prevention – better data, clearer S251 returns – and raise the status of any such indicator, not just with local policymakers, but also with Ofsted (D. L. Bennett et al., 2021; C. J. R. Webb & Bywaters, 2018). For good or ill, Ofsted has a great deal of power when it comes to focussing local authority attention on specific indicators (Murphy, 2021a).

When interpreting indicators, all participants linked rising care entry to budget cuts, and, in particular, cuts to prevention. They articulated a relatively straightforward causal theory – less prevention, more demand. But the deep and prolonged crisis of austerity, long-since normalised, continues to erode preventative services while raising the status of high-cost problems, fuelling care entry and focussing resources on the knife-edge of care. Many policymakers are keenly conscious of the vicious circle of ever greater spend on acute services at the expense of prevention. This is old news. But their very frustration, and the language they use to describe the status quo, re-centres emotion in a public policy debate that has so far remained rather dry and academic. The results expose quite how vicious these spending patterns are. They run counter to deeply held social work values. When making the case for reinvestment, therefore, policy entrepreneurs should push back against the normalisation of austerity policies, clearly identifying the progenitors of the cuts so as to avoid trickle-down accountability without corresponding power, and communicating the frustration, helplessness and moral distress of local policymakers. The narrative they craft must not simply hearken back to a contested policy past, but envision a new future, perhaps drawing on policymakers' own ambitious visions, in their responses to blue-sky questions.

Participants also spoke of rising risk factors within communities. Poverty did feature; it was one factor in the mix, linked to family stress. But on the whole, participants veered away from discussion of a causal relationship between poverty and care entry. The fear of stigmatising poverty, and the diminished place of poverty in conceptually chaotic, flattened landscape of competing 'risk factors', is an obstacle to tackling this major socioeconomic driver of care entry. A problem that cannot be named, does not reach the agenda – and indeed, in the policy stream, which I do not cover in this chapter, few participants considered policies to address the material conditions of children's lives. Policy entrepreneurs and researchers may be able to offer clearer conceptual models and causal language for breaking the poverty-to-care taboo (Featherstone, Gupta, Morris, White, et al., 2018). They should highlight the potential role of local anti-poverty policies in safely reducing care entry, emphasising their technical feasibility and compatibility with ethical practice (Saar-Heiman & Gupta, 2020).

Because there are powerful values at play in children's services. In our interviews they seemed to pull against ever greater interventionism. Participants were strongly opposed to risk-aversion, and in favour of family support. That anti-poverty feeling did not generally come to the fore suggests that social work values have yet to encompass, fully and explicitly, ambitious anti-poverty aims. Policy entrepreneurs should tap into core social work values when defining the problem.

The great national crises in Children's Services tend to derail efforts to tackle rising care entry and its socioeconomic drivers (Elliott, 2020). Even crises that, like covid, magnify the problem and point to policy solutions, may also exacerbate the financial conditions that precipitated the problem in the first instance. High profile child deaths will continue to periodically dominate the policy agenda (Warner, 2013b), centring the individual child, and subordinating structural analyses. Rather than passively submitting to this crisis landscape, policy entrepreneurs must consider how to make the most of the normally scarce national attention to Children's Services, mining the neglected recommendations of independent reviews, past and present (Lord Laming, 2003; Munro, 2011). Local crises have opened windows of opportunity. Poor Ofsted judgements, though challenging, costly and disruptive (Hood & Goldacre, 2021), can also drive crucial investment. Policy entrepreneurs may wish to position themselves as a critical friend of Ofsted's, recognising the influence they wield.

Not all crises are framed as such. Austerity, a past, present and ongoing crisis, has become an old familiar story that policymakers tell. Policy entrepreneurs might push back against the normalisation of prolonged crises. The narrative they craft should clearly identify the

protagonists, including the progenitors of austerity, and re-envision prevention policy, setting the scene for future reinvestment.

Local comparisons highlighted the role of deprivation in structuring care rates, though policymakers' accountability for any failures relative to other areas meant that these comparisons often seemed defensive, rather than productive. In the context of an active improvement industry, successes more likely to provoke useful comparison. Cross-sectoral comparisons were rare but powerful and potentially useful in the hands of a policy entrepreneur operating at national level. Few international comparisons were drawn, pointing to a potential future avenue for policy-relevant research. Also when engaging in problem definition, participants shifted between a conception of care entry as a problem at the level of the individual, requiring targeted intervention, and care entry as a population-level problem requiring proportionate universalist solutions. The dual lens is necessary in a sector that is engaged in prevention at all levels, and also some level of risk-prediction. But an emphasis on targeted solutions may yet dominate, hampering efforts to address structural causes.

Limitations

This study is subject to limitations. I conducted 15 interviews across six local authority sites, and the findings are necessarily partial. They may be less relevant to policymakers in some areas, and may omit a range of perspectives borne of different contexts. However, the selection of contrasting settings with outlying trends in care entry, after accounting for deprivation and unemployment levels – places that do not conform to expectations, where the problem appears either under control, or unrestrained – ensures a focus on decision-making at local level, and sharply defined or unusual policy insights. This has led to the development of theory of potential relevance to some policymakers, and to the policy community as a whole.

The qualitative findings are rich and extensive, and a consequent limitation is the omission here of insights pertaining to the policy and political streams, and the consideration of holistic strategies for bringing together the three streams and getting the issue, and proposed solutions, on the political agenda (Kingdon, 1984). However, the circumscribed decision-making environment at local level, a series of crises distracting and detracting from the problem of care entry and its socioeconomic drivers, and an intractable national political landscape, has so far limited opportunities for bringing together the streams. While they continue to operate relatively independently, it is feasible to explore them one by one.

The strength of the online meeting format is also its weakness. The interview resembled any other work meeting. This may promote a kind of naturalism, conducive to rapport, but it may also fail to reinforce the unique, confidential nature of the qualitative interview, and the opportunity to speak openly. Some participants did seem to exercise caution in their responses. I aimed to overcome reserve, but also to interpret it, acknowledging the institutionally mediated nature of the interview, and the ways in which an individual's agency is constrained by the organisation to which they belong (O' Toole, 2018). My interview approach may also have contributed to participants' caution. When asked to co-produce interpretations of the plots, participants might have felt under pressure to respond flawlessly. I interpret findings in light of this possibility. Finally, 'expert interviews' tend to benefit from the interviewer establishing their insider status (Bogner et al., 2009). This interviewer sought opportunities to bolster their credentials, for example noting past experience as a keyworker in supported accommodation, or expanding on acronyms before participants could do so:

> *Participant: So you know the MASH is the –*
> *Participant and interviewer [at the same time]: Multi Agency Safeguarding Hub.*

But in one interview, an early apparent miscommunication may have affected rapport. In another, the interviewer's lack of familiarity with the participants' specialist field may have led to their reluctance to reschedule when the interview was cut short - though they might simply have been busy. In contrast, some interviews were warm, effusive, and difficult to bring to a close – with additional revelations after the recording had been stopped, not included in this study. Limitations relating to the unpredictable nature of human interactions are common in any qualitative study. Researcher reflexivity ensured careful and contextualised interpretations of the resulting data.

Conclusion

Though tackling rising care entry is a clear policy priority, I identify major challenges to the consideration of policies tackling the socioeconomic determinants of care entry. But I also identify opportunities for stronger, crisis-proof problem definition. Better indicators of prevention spend, a clearer causal language for describing the role of poverty in driving care entry, a refusal to normalise ongoing cuts to key services, a readiness to highlight the neglected recommendations independent reviews of the sector, past and present, and a willingness to engage in strategic, purposeful comparison across local authorities, sectors and countries – all may help draw attention to the core problem of rising care entry and inequalities. While the national political landscape for reducing child poverty and increasing central government funding

to local government remains highly circumscribed, policy entrepreneurs must recognise the need for local strategies. And, given the pressures on policymakers, these strategies may be, by necessity, incrementalist. But modest change can help effect a paradigm shift, particularly if explicitly aligned with more ambitious anti-poverty and primary preventative goals.

Chapter 6: Study 5 – Monitoring a fragile child protection system: a longitudinal local area ecological analysis of the inequalities impact of children's services inspections on statutory child welfare interventions in England

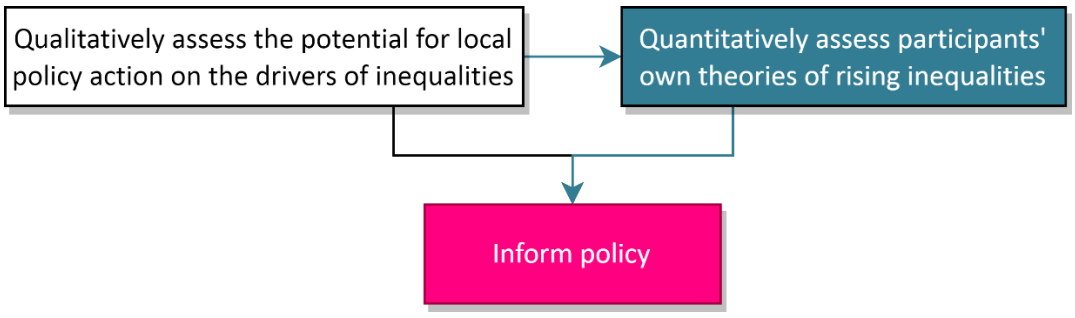
Study 5 was first published as:
Bennett, D. L., Schlüter, D. K., Melis, G., Webb, C. J., Reddy, S., Barr, B., Wickham, S., & Taylor-Robinson, D. (2022). Monitoring a fragile child protection system: a longitudinal local area ecological analysis of the inequalities impact of children's services inspections on statutory child welfare interventions in England. *Journal of Social Policy*, 1–21.
https://doi.org/10.1017/S0047279422000587

Commentary on study 5

A recurring theme of study 4 was participants' preoccupation with the growing power of the inspectorate. Several asserted that poor inspection judgements led to a spike in care entry; one suggested that this would inevitably increase inequalities, via differential consequences of children's adversity linked to service bias.

In study 5, I evaluate these claims empirically (figure 18). Using Poisson mixed-effects regression models, I assess whether child welfare intervention rates are higher in an inspection year, higher for worse judgements, and whether there is an inequalities dimension to the rise. The study findings validate and extend existing research into the role of quality monitoring systems in shaping service delivery. It highlights the need for an inspectorate attuned to potential unintended consequences of their interventions – an inspectorate engaged with the wider socioeconomic determinants of service quality, and the local socioeconomic context for quality improvement efforts.

Figure 18. Research roadmap. Theories derived from qualitative work were assessed quantitatively.



Abstract

Child protection systems monitoring is key to ensuring children's wellbeing. In England, monitoring is rooted in onsite inspection, culminating in judgements ranging from 'outstanding' to 'inadequate'. But inspection may carry unintended consequences where child protection systems are weak. One potential consequence is increased child welfare intervention rates. In this longitudinal ecological study of local authorities in England, I used Poisson mixed-effects regression models to assess whether child welfare intervention rates are higher in an inspection year, whether this is driven by inspection judgement, and whether more deprived areas experience different rates for a given inspection judgement. I investigated the impact of inspection on care entry, child protection plan-initiation, and child-in-need status. I found that inspection was associated with a rise in rates across the spectrum of interventions. Worse judgements yielded higher rates. Inspection may also exacerbate existing inequalities. Unlike less deprived areas, more deprived areas judged inadequate did not benefit from an increase in the less intrusive 'child-in-need' interventions. These findings suggest that a narrow focus on social work practice is unlikely to address weaknesses in the child protection system. Child protection systems monitoring should be guided by a holistic model of systems improvement, encompassing the socioeconomic determinants of quality.

Background

Ending violence against children is a public health priority, central to the United Nations 2030 Sustainable Development Agenda (United Nations, 2015). Globally, in 2014, an estimated 1 billion children, at a minimum, experienced emotional, physical or sexual abuse (Hillis et al., 2016). The negative consequences for children's health and wellbeing throughout the lifecourse, and for societies at large, are vast in scope and scale (World Health Organization, 2016). There is broad international consensus on the need for national child protection systems to coordinate action – including preventative action – and robust monitoring and regulation to ensure that systems are working as intended (UNICEF et al., 2013).

Applying UNICEF's typology of child protection systems, England's system can be characterised as formal, that is, regulated by the State through legislation and policy; and complex, in that the system is governed and financed by the State from domestic resources and employs a professionalised workforce (UNICEF et al., 2013). Yet the English system has also been described as structurally fragile, weakened by successive waves of intense public criticism following high-profile child deaths, leading to inquiries focussed on professional error, reforms mandating compliance with imperfect performance indicators, and, ultimately, defensive practice by demoralised and transient staff (Munro, 2011). These challenges risk tilting the English system further towards a 'child-protection' orientation focussed on protecting children from harm often through legalistic and coercive interventions, and away from a 'family support' orientation that prioritises working with families to reduce harm (Biehal, 2019; Spratt et al., 2015; UNICEF et al., 2013).

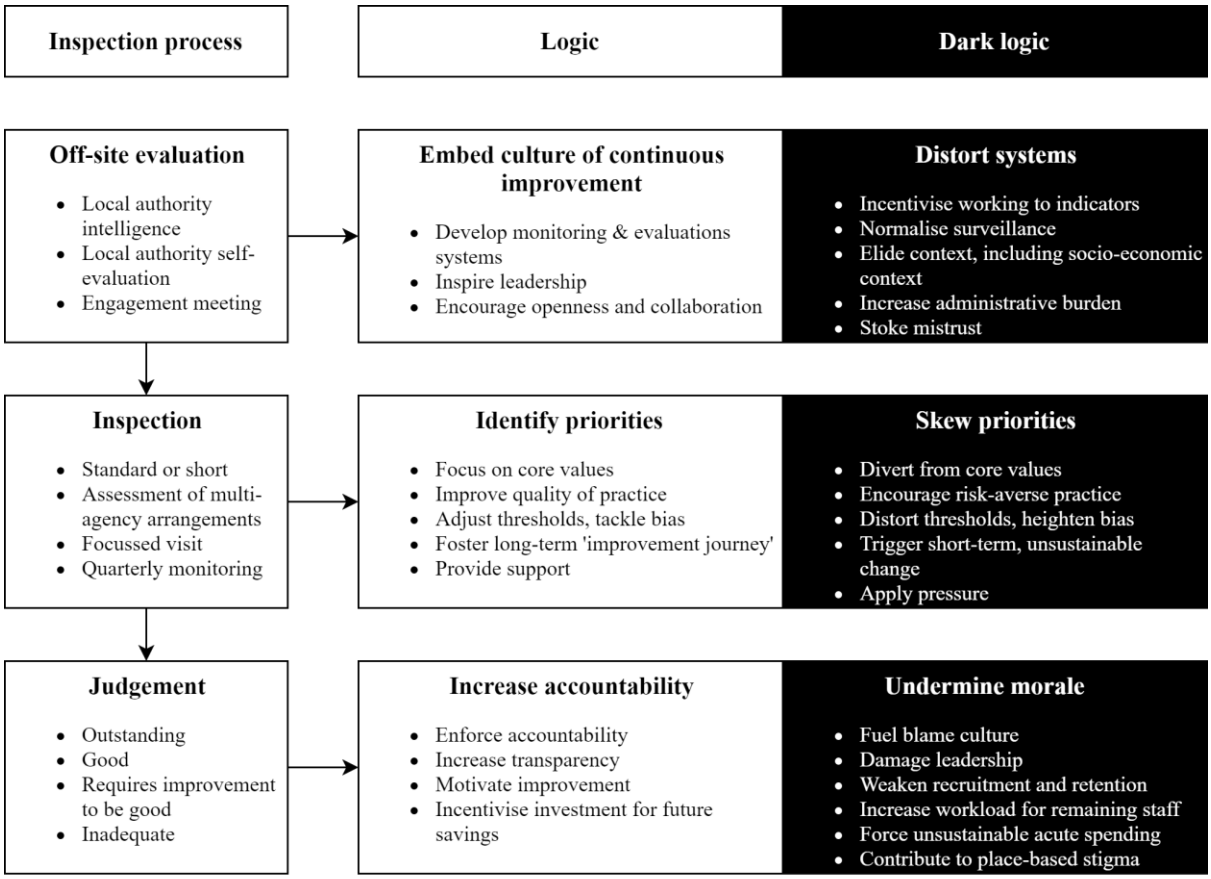
It is in this context that the child protection system has come under increasing strain. Contemporary policy analyses trace a costly move towards more crisis intervention (The independent review of children's social care, 2021). Over the past decade, rates of children entering local authority care have increased (Bennett et al., 2020). Austerity-driven cuts to local authority budgets have led to the rationing of scarce resources, particularly for preventative services, and more so in more deprived areas (Hood, Goldacre, Gorin, & Bywaters, 2020; C. J. R. Webb & Bywaters, 2018). This has heightened concerns about 'failure demand' in child protection, whereby a failure to effectively address emerging needs leads to cascading acute interventions, ultimately overwhelming the system – with socioeconomic deprivation as a catalyst (Hood, 2015). This is already an established narrative among some child protection teams: social workers trace a direct, causal link between cuts to support services, rising caseloads, and more routinised, less child-focussed work (Murphy, 2021b, 2021a). Quantitative research has

established the potential of preventative support to reduce rates of Children in Need and young people becoming looked after (D. L. Bennett et al., 2021; C. Webb, 2021b). The withdrawal of support erodes this potential. There is a need for monitoring and evaluation systems attuned to these structural risks (C. J. Webb et al., 2022).

Monitoring and oversight of the English child protection system falls to an inspectorate, the Office for Standards in Education, Children's Services and Skills (Ofsted). Ofsted aims to set standards, assess quality, and drive systems improvement in each and every English local authority (*About Us - Ofsted - GOV.UK*, n.d.). Although inspection frameworks have changed over time, in response to criticism and consultation (appendix 35) (Ofsted, 2016a, 2017), all comprise cycles of onsite inspection and routine analysis of 'key performance metrics', culminating in narrative reports and judgements on a four-point scale, ranging from 'outstanding' through to 'inadequate'. Typically, local authorities' Children's Services have undergone graded inspections, lasting between 9 days and 3 weeks, once every three years, sometimes with little or no formal notice – though the relatively predictable 3-year cycle structures expectations. The timing of inspections for particular local authorities may also be informed by the data Ofsted hold – based on this intelligence, an apparent deterioration may trigger inspection (Ofsted, 2021). Poor judgements are consequential. They occasion additional monitoring and re-inspections, and Children's Services must demonstrate rapid improvement or risk being wrested from local authority control (Local Government Association, 2019).

Monitoring and evaluation processes may have both beneficial and deleterious effects on the quality of child protection and outcomes for children. Where poor judgements are accompanied by intense media scrutiny or political opportunism, or coincide with other challenges, such as the implementation of changes following a serious case review, the consequences for local authorities may be amplified, or unpredictable (Purcell, 2020b). Significantly, given the context of fiscal austerity, Ofsted has been slow to recognise the role of deprivation in determining service quality (C. J. Webb et al., 2022), and rejects a link between spending and outcomes despite emerging evidence of the salience of prevention spend (C. J. Webb et al., 2022). This suggests that there may be important blind spots in the inspectorate's vision of quality and approaches to surveillance. Figure 19 outlines, in white, a logic model of continuous quality improvement through monitoring and inspection. It also posits a dark logic model of possible unintended consequences (Bonell et al., 2015), drawing on the peer reviewed and grey literature (ADCS, 2009; Gibson, 2016; Hood et al., 2019; Hood, Goldacre, Gorin, Bywaters, et al., 2020; Local Government Association, 2015; Local Government Association et al., 2015; Ofsted, 2016a, 2017; Wilkins & Antonopoulou, 2020b).

Figure 19. Logic and dark logic model of the impact of current Children's Services monitoring and evaluation systems (Ofsted, 2021).



One possible unintended consequence is increased care entry. The inspectorate looms large in qualitative research within Children's Services Departments. 'Ofsted Anxiety Disorder' (Murphy, 2021a) may be pervasive, saturating emails, memos and team meetings, steering audits and disciplinary procedures, and ensuring a constant focus on 'Ofsted-readiness', understood as evidence of compliance rather than child-centred practice. This anxiety intensifies when an inspection is thought to be imminent (Murphy, 2021a). Poor quality, bureaucratic practice may impede family engagement and increase the likelihood of escalation of risk and more acute intervention. Reflecting on long-term trends in care entry rates, some of the study participants, local area policymakers in the child protection system, have spoken of anxious, risk-averse practice in the run-up to inspection, and, in response to negative judgements, lower thresholds for acute child welfare interventions as a shortcut to guaranteeing children's safety and placating the inspectorate (NIHR School for Public Health Research, 2018). These same phenomena could also be viewed as the consequence of necessary adjustments to inappropriate thresholds, and ultimately in the best interests of children. Either way, local authorities may experience a sharp rise in child welfare interventions in the year of an inspection. By this dark logic, child

protection systems monitoring may reflect and exacerbate, rather than identify and redress failure demand.

There is emerging evidence that poor judgements may precipitate increased demand, but limited evidence that this increased demand extends to children in care. In a 2019 report, the Local Government Association warns local authorities of a possible spike in referrals following inadequate judgement – there is no mention of the impact on more acute interventions (Local Government Association, 2019). Identifying local authorities expected to receive an inadequate judgement between 2011 and 2013 based on an assessment of performance indicators, Hood et al. compare those that conformed to predictions with those that defied them. Their results suggest that local authorities judged inadequate may experience increased child protection investigations, conferences, and plans in the year following inspection (Hood, Grant, et al., 2016). They do not report on changes in care entry however, and the restricted sample size does not allow for a definitive assessment of the impact of inspection on statutory child protection interventions.

More recently, Hood and Goldacre analysed trends in median local authority intervention rates, centred on a notable inspection year. The discontinuity they observed was borne out by an interrupted time series analysis, confirming the hypothesised rise in child-in-need and child protection interventions during an inspection year, particularly for local authorities judged inadequate – though again, no evidence of a spike for Children Looked After (Hood & Goldacre, 2021). In a survey of Directors of Children's Services, the question of the flexibility of thresholds for care entry divided respondents (All Party Parliamentary Group for Children, 2018). Ultimately, though considered by some to be common knowledge in practice, or 'widely known in the business' (NIHR School for Public Health Research, 2018), the potential impact of high-stakes inspections on thresholds for care entry has not yet been established. Moreover, it is unclear whether any threshold effects vary by local area socioeconomic conditions, a critical consideration given rising inequalities in children entering care across England (Bennett et al., 2020). Deprived local authorities suffering more acutely from failure demand and struggling with unmet need might be expected to ration scarce resources by raising thresholds across the spectrum of services. If the scrutiny of inspection prompts a recalibration of thresholds, these areas might be expected to experience a correspondingly greater spike in child welfare interventions, relative to less deprived areas.

This study therefore aims to assess whether rates of care entry are higher in an inspection year, whether this is driven by inspection judgement, and whether more deprived local authorities

experience different intervention rates for a given inspection judgement. A secondary aim is to determine whether findings are consistent across less acute child welfare outcomes. This will offer insights into how child protection systems monitoring might continue working towards service improvement for children's health and wellbeing, while mitigating unintended consequences.

Methods

Data sources and measures

I performed longitudinal analyses of trends in care entry at local authority level, using routinely available data from 147 English upper-tier local authorities between 2010 and 2020, based on 2019 boundaries. I refer to the financial year (April to March) by the latter year throughout. The time period reflects a distinct social policy context, beginning with the introduction of the first austerity measures in the aftermath of the 2008 recession, taking us through a decade marked by deep and ongoing cuts to welfare benefits and public services, and ending in March 2020, on the brink of the first UK COVID-19 pandemic lockdown – the data are unaffected by the changes that followed. Four local authorities were excluded from analyses. Bournemouth, Christchurch and Poole, and Dorset were excluded due to boundary changes that could not be reconciled across years; the City of London and the Isles of Scilly were excluded due to their small population size – as frequent extreme outliers, they are commonly excluded from local area-level analyses of child welfare interventions (Hood & Goldacre, 2021; National Audit Office, 2016).

The primary outcome was the annual rate of children under the age of 18 starting to be looked after by local authorities in England ('CLA rate'). Panel data for the number of children entering care were drawn from the 'children looked after data return', submitted by local authorities to the Department for Education on 31st March annually (Department for Education, 2021c). The secondary outcomes were the rate of children becoming the subject of a child protection plan ('CPP rate'), and children beginning an 'episode of need' ('CIN rate'). Data for these outcomes between 2010 and 2020 were sourced from the CIN Census records of children referred for social care support in England (Department for Education, 2021b). Missing data were rare, confined to CPP and CIN data in the early years of the CIN census (appendix 36). I therefore performed complete case analyses. Data on the local authority child population from which cases are drawn were sourced from Office for National Statistics (ONS) mid-year population estimates (Office for National Statistics, 2020).

The main exposure was Ofsted inspection judgement. I used data on inspection judgements issued between 2010 and 2020, available from Ofsted (Ofsted, 2020). I considered all inspections resulting in a public judgement pertaining to children who need help and protection, or children not yet looked after, across inspection frameworks (appendix 35, table 42). Exposure to the inspectorate was modelled first as a binary variable ('no inspection'; 'inspection'), then as a categorical variable ('no inspection'; 'inspection with *good* or *outstanding* judgement'; 'inspection with *adequate* or *requiring improvement to be good* judgement'; 'inspection with *inadequate* judgement').

As a measure of local area deprivation, I used the multiple deprivation score of the 2019 Indices of Multiple Deprivation, encompassing the following deprivation domains: income; employment; education, skills and training; health and disability; crime; barriers to housing and services; and living environment (Ministry of Housing Communities and Local Government, 2019). These 2019 data were compiled from indicators measured around 2015, the midpoint of my analysis, and were therefore the most fitting time-invariant measure of deprivation for the several judgements for each local authority over the decade. In descriptive analyses, I assigned local authorities to quintiles based on their multiple deprivation score. In regression models, I used a continuous measure of the multiple deprivation score: I ranked local authorities by their score, calculated the cumulative proportion of the 2015 child population in each rank, and derived a weighted rank by assigning a value from 0 to 1 based on the midpoint of the local authority's range in the cumulative distribution (D. L. Bennett et al., 2020; Straatmann et al., 2019).

Statistical analysis

First I summarised data in a table of descriptive statistics and visually assessed trends in CLA rates to see if obvious changes occurred with inspection. In visualising the data, I plotted trends in exposure and outcomes over the study period, grouped by local authority deprivation quintile. I used bar charts and horizontal line plots to examine trends in inspection frequency and dominant inspection judgement 'trajectories', and line plots to assess descriptive trends in child welfare outcomes. I then used trellis plots of care entry rates against time, faceted by deprivation quintile, lines coloured by annual inspection judgement, to explore visually whether large fluctuations in the primary outcome, CLA rate, coincided with inspection.

Second, I assessed statistically how CLA rates changed with inspection. To do this I fitted Poisson mixed effects regression models to the longitudinal local authority-level data for each child welfare outcome over time, using the log of the child population as an offset, and a time-varying indicator of inspection as the exposure (D. C. Atkins et al., 2012; D. C. Atkins & Gallop, 2007; Donald & Robert, 2006). First, I used the binary inspection variable (inspected no/yes) as

the main exposure; this model assumes a transient change in overall CLA rate in the inspection year, relative to no inspection. In a second model, I used the categorical inspection judgement variable as the main exposure; this model also assumes a transient change in overall CLA rate in an inspection year relative to no inspection, but the magnitude of the change is assumed to vary by judgement. In all models, I included multiple deprivation weighted rank and either a linear or quadratic time trend, according to model fit. Finally, to assess whether any association between exposure and outcome varied by area-level deprivation, I fitted a third model, testing for an interaction between the exposure and deprivation variable. In all models, I included a random effect on the linear term of the time trend to account for the correlation between measurements within local authorities over time. I accounted for overdispersion by adding observation-level random effects (Harrison, 2014). All model parameters were estimated by maximum likelihood, using generalized likelihood ratio statistics to compare nested models, and testing for significance at the 5% level. Models were estimated using the glmer function from the lme4 package in R version 4.0.5 (Bates et al., 2015). Model formulae are presented in appendix 37.

Results

Descriptive statistics are presented in table 6. Between 2010 and 2020, local authorities were inspected three times, on average, at all quintiles of deprivation. Descriptive trends in exposure and outcome are presented in appendices 38 and 39, respectively. The trellis plots, faceted by deprivation quintile (figure 20), show substantial heterogeneity in care entry rates both between local authorities, and within local authorities over time, irrespective of inspection judgement. However, visually there are notable examples of rates spiking in an inspection year, suggesting a potential association between inspection and a transient rise in CLA rates, more evident in more deprived areas.

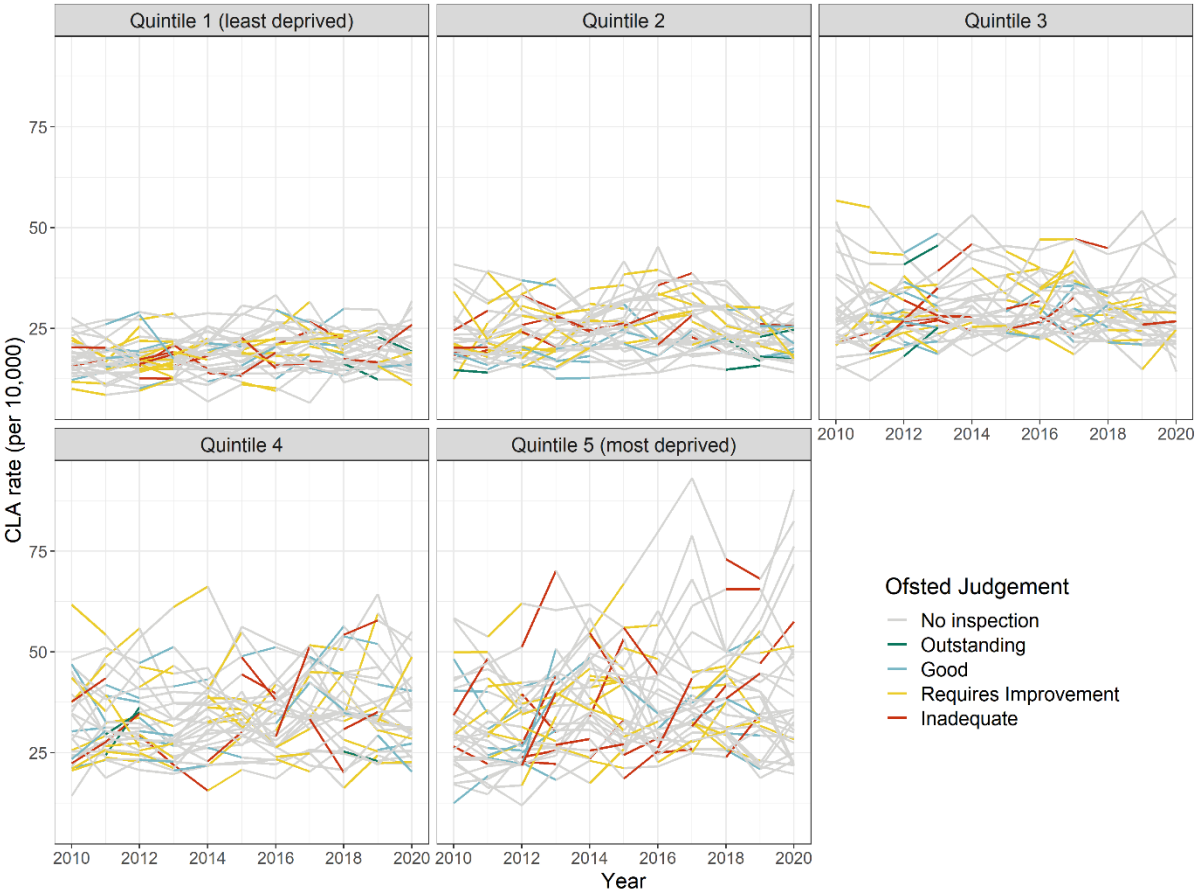
Table 6. Descriptive statistics over the time period 2010-20, by local authority multiple deprivation quintile.

	Multiple Deprivation Quintile					
	1= least deprived	**2**	**3**	**4**	**5=most deprived**	**Total**
LAs; N (%)	30 (20.4%)	29 (19.7%)	29 (19.7%)	29 (19.7%)	30 (20.4%)	147 (100%)
Mean annual CLA rate per 10,000, 2010-20	18.9	24.0	29.5	34.0	36.7	28.6
At least one inspection; N (%)	30 (100%)	29 (100%)	29 (100%)	29 (100%)	30 (100%)	147 (100%)
Inspections per LA; median [IQR]	3 [2, 3.75]	3 [3, 4]	3 [2, 4]	3 [2, 4]	3 [3, 3]	3 [2, 4]
Judgement: Outstanding; N (%)	2 (2.3%)	5 (5.3%)	2 (2.4%)	3 (3.4%)	0 (0.0%)	12 (2.7%)

Judgement: Good; N (%)	22 (25.3%)	27 (28.4%)	24 (28.9%)	24 (27.3%)	22 (24.2%)	119 (26.8%)
Judgement: RI; N (%)	46 (52.9%)	46 (48.4%)	41 (49.4%)	47 (53.4%)	44 (48.4%)	224 (50.5%)
Judgement: Inadequate; N (%)	17 (19.5%)	17 (17.9%)	16 (19.3%)	14 (15.9%)	25 (27.5%)	89 (20.0%)

Note. Descriptive statistics covering: number of local authorities; mean annual rate of children entering care; number of local authorities experiencing at least one inspection; median number of inspections per local authority; number of local authorities receiving each of the judgements (outstanding; good; requires improvement to be good; inadequate). LA, Local Authority; IQR, interquartile range; RI, requires improvement to be good.

Figure 20. Trellis plots, faceted by LA multiple deprivation quintile. Each line represents an LA's trends in CLA rates, 2010-20. Lines are coloured by the LA's inspection status that year.



Note: These trellis plots show that there is heterogeneity in care entry rates between and within local authorities over time, across inspection judgements. There are notable examples of transient rate increases in an inspection year.

Tables 7 and 8 outline the results of the Poisson mixed effects regression models. In Models 1, using the binary inspection variable (inspected no/yes), an inspection year was associated with a rise in child welfare intervention rates, including rates of care entry, the most acute outcome. Overall, between 2010 and 2020, inspection year was associated with a 2.3% increase in the rate of children entering care (95% CI 0.5%, 4.1%); a 3.0% increase in the rate of children being made subject to a child protection plan (95% CI 0.8%, 5.3%); and a 5.2% increase in the rate of children recorded by the local authority as having begun an episode of need (95% CI 2.7%,

7.8%), relative to no inspection, holding deprivation constant. To contextualise these findings, and based on mean national child welfare intervention rates over the study period, an inspection across all local authorities, which would generally take place over the course of three years, would be expected to yield an additional: 650 children entering care (95% CI 141, 1158); 1,745 children being placed on a child protection plan (95% CI 465, 3083); and 19,794 children beginning an episode of need (95% CI 10278, 29691).

In Models 2, using the categorical inspection judgement variable as the exposure, worse judgements were associated with higher rates across the spectrum of interventions, relative to no inspection. Figure 21 illustrates the consistent dose response relationship. Local authorities judged to be good or outstanding did not significantly differ from those that received no inspection. Each step decrease in inspection judgement was associated with higher rates. Between 2010 and 2020, local authorities judged to require improvement saw, on average, a 3.2% increase in the rate of children entering care (95% CI 0.8%, 5.7%); a 4.2% increase in the rate of children becoming subject to a child protection plan (95% CI 1.2%, 7.3%); and a 5.2% increase in the rate of children beginning an episode of need (95% CI 2.7%, 7.8%), compared to local authorities that received no inspection, controlling for deprivation. For local authorities judged inadequate, this rose to 4.6% for children becoming looked after (95% CI 0.9%, 8.5%); 9.9% for children becoming subject to a child protection plan (95% CI 5.1%, 15.0%); and 11.6% for children beginning an episode of need (95% CI 6.0%, 17.4%).

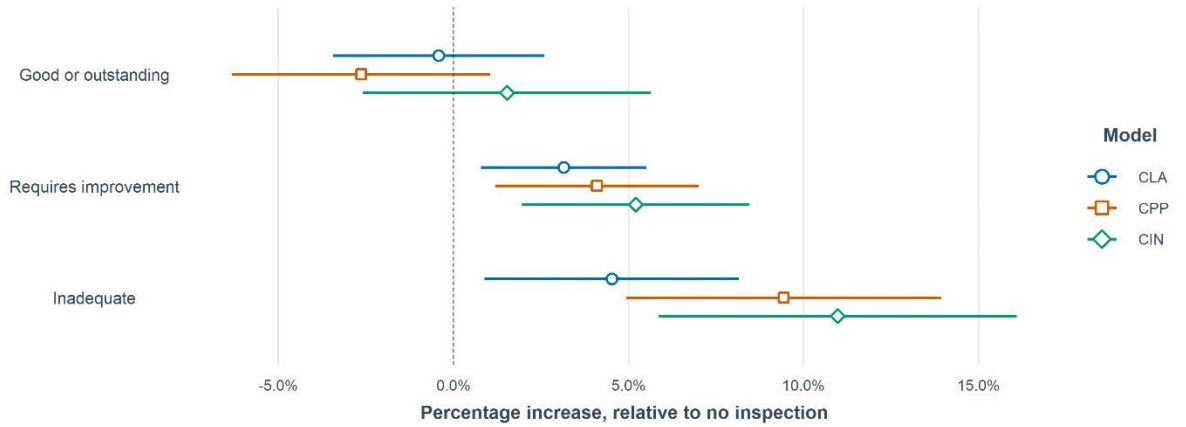
Models 3 incorporate the interaction between the categorical inspection judgement and deprivation variable. Using likelihood ratio tests, inclusion of the interaction term conclusively improved model fit only for the CIN model, not the CLA and CPP models. I therefore present and interpret only the results for the CIN model (for full CIN model output, see appendix 40, table 47). In the least deprived areas, the dose response relationship identified in Model 2 is broadly upheld, with higher mean CIN rates as judgements worsen, reaching significance among local authorities judged inadequate. The mean rise in CIN rates for an inadequate judgement relative to no inspection is particularly marked, at 28.7% (95% CI 15.5%, 43.3%). By contrast, in the most deprived areas, the dose response relationship appears to be disrupted at the level of inadequate judgements. The worst judgement was not associated with a significant change in the CIN rate, relative to no inspection, showing an average change of 0.3% (95% CI -8.2%, 9.5%). Appendix 41 illustrates these Model 3 interactions for CIN.

Table 7. Summary of regression coefficients for the percentage rise in child welfare intervention rates associated with inspection, controlling for deprivation.

	Percentage change in the child welfare intervention rate, relative to no inspection, with 95% confidence intervals		
	Child welfare intervention		
	Children starting to be looked after	Children placed on a child protection plan	Children recorded as 'in need'
Model 1: Binary exposure			
Reference category: no inspection	-	-	-
Inspection	2.3% [0.5%, 4.1%]	3.0% [0.8%, 5.3%]	5.2% [2.7%, 7.8%]
Model 2: Categorical exposure			
Reference category: no inspection	-	-	-
Good or outstanding	-0.4% [-3.4%, 2.6%]	-2.6% [-6.1%, 1.1%]	1.5% [-2.6%, 5.8%]
Requires improvement	3.2% [0.8%, 5.7%]	4.2% [1.2%, 7.3%]	5.3% [2.0%, 8.8%]
Inadequate	4.6% [0.9%, 8.5%]	9.9% [5.1%, 15.0%]	11.6% [6.0%, 17.4%]

Note. For full model output, see appendix 40.

Figure 21. Estimated percentage rise in child welfare intervention rates associated with inspection judgement, controlling for deprivation.



Note. This figure illustrates the output of Table 7 Model 2. It highlights the clear dose response relationship between severity of judgement and change in intervention rates: the worse the judgement, the greater the rise in CLA, CPP and CIN rates. (CLA – children starting to be looked after; CPP – children placed on a child protection plan; CIN – children recorded as in need).

Table 8. Summary of regression coefficients for the percentage rise in CIN rates, associated with inspection, for least and most deprived local authorities.

	Percentage change in the child welfare intervention rate, relative to no inspection, with 95% confidence intervals	
	Children recorded as 'in need'	
	Least deprived local authority (Deprivation = 0)	Most deprived local authority (Deprivation = 1)
Model 3: Interaction categorical exposure*deprivation		
Reference category: no inspection	-	-
Good or outstanding	1.7% [-7.0%, 11.3%]	1.4% [-6.5%, 9.9%]
Requires improvement	3.3% [-3.5%, 10.7%]	7.0% [0.8%, 13.6%]
Inadequate	28.7% [15.5%, 43.3%]	0.3% [-8.2%, 9.5%]

Note. For full model output, see appendix 40.

Discussion

There are higher child welfare intervention rates in the year of an inspection in England, suggesting a systematic drop in intervention thresholds following a negative inspection outcome – or in correct anticipation of such an outcome. Higher rates appear to be driven by inspection judgement: there is a clear, consistent, graded association between inspection judgement and intervention rates, distinct from pre-existing local authority time trends. The worse the judgement, the higher the rates. Findings did not change according to the level of local area deprivation for my main outcome of children looked after, nor for my more acute secondary outcome, children starting on a child protection plan. However, for children recorded by the local authority as beginning an episode of need – the least intrusive statutory child welfare outcome – the consequences of inspection varied by level of deprivation. The dose response relationship of higher CIN rates for worse judgements holds true in the least deprived areas. But in the most deprived areas, this pattern is interrupted: an inadequate judgement was not associated with any change in CIN rates, relative to no inspection.

This study corroborates and complements a recent study by Hood and Goldacre, quantifying the impact of the inspectorate on child welfare intervention rates (Hood & Goldacre, 2021). Both offer evidence that inspection, and inadequate judgements in particular, herald greater use of new child-in-need interventions and child protection plans. Both uncover strong associations within the same financial year – a previous study had indicated that the effects of inadequate judgements on child protection intervention rates might play out in subsequent years (Hood, Grant, et al., 2016). Ethnographic work shows that, although fear and anxiety about inspection may be unrelenting, it is more 'infectious', more pervasive, when inspection is thought to be, or cast as, imminent (Murphy, 2021a). Collectively, the evidence points to a child protection system highly reactive to the monitoring system, rapidly 'flexing' in anticipation of, or in response to, a negative judgement.

Whereas Hood and Goldacre use an interrupted time series design centred on an appropriate inspection year to highlight the discontinuity in trends before and after the event (Hood & Goldacre, 2021), this analysis makes use of data across all inspections to assess annual effects over the decade, uncovering new insights. I expose the clear dose response relationship between inspection judgement and child welfare intervention rates, with higher rates for worse judgements. This is consistent with a literature emphasising the 'bureaucratic burden' accompanying negative judgements (Munro, 2011; Murphy, 2021a). I demonstrate the clear impact beyond practice, on children and families. I show that that the dose response relationship

extends to the most acute outcome, care entry rates. If the flexibility of thresholds for the most acute interventions was still in doubt (All Party Parliamentary Group for Children, 2018), this study puts these doubts to rest. And I give evidence of socioeconomic inequalities in the Ofsted-associated rise in new child-in-need interventions.

There are several possible explanations of my findings. The changes may be inappropriate, the result of risk-averse decision-making or rushed child-removal practices that leave insufficient time for supportive interventions. There is clear evidence that the pressure of the inspectorate affects social workers' decision-making (Gibson, 2016; Langston, 2021; Murphy, 2021a). Institutional ethnography in children's services exposes the ways in which a local authority's identity may be structured by inspection judgement. Social worker's identities are constrained accordingly, with senior managers redefining the boundaries of pride and shame, and limiting discretionary space, to enforce compliance with an audit-driven culture intended to secure favourable judgements (Gibson, 2016; Murphy, 2021a). The altered decision-making environment may fuel the dark logic outlined in figure 19, distorting systems, skewing priorities and undermining morale, ultimately compromising the quality of frontline practice and support to children and families. Social workers' ability to centre the child, to know the child and exercise discretion, particularly under conditions of scarce resources, may become subordinate to actions perceived to further the interests and protect the reputation of the organisation itself (Munro, 2011; Murphy, 2021a, 2021b). The reputational damage to local authorities of a negative judgement has historically been severe, heightened by a critical media, particularly in the context of high-profile child deaths (Parton, 2011, 2012; Warner, 2014). Changes to the inspection regime implemented in 2018, including the introduction of non-judgement focussed visits, a greater emphasis on social work practice over process, and a mixed methods evaluation of the implementation, may already be helping to address some of the unintended consequences of organisational defensiveness – though the intensity of inspection remains at the forefront of local authority feedback (Ofsted, 2019).

Conversely, adjustments to child welfare intervention rates may be warranted where children are unsupported or at risk, and excessively high thresholds are lowered. In this case, the systematic lowering of thresholds in response to inspection, over the decade, is plausible only in the context of other unaddressed structural weaknesses in the child protection system, such as chronic underfunding in the face of high demand – more consequential in more deprived areas and disproportionately affecting early help and family support services (C. J. R. Webb & Bywaters, 2018). My finding of a differential impact of inspection judgement on rates of children beginning an episode of need by deprivation highlights this weakness. Appendix 41 illustrates the

differences in the impact of inspection judgement by area-level deprivation. Interventions at the level of Children in Need are the least intrusive, least investigation-oriented statutory intervention. In theory, if not always in practice (Featherstone, Gupta, Morris, & Warner, 2018; Hood, Gorin, et al., 2020), they entitle the family to a range of support, from home help and access to day-care, to financial assistance, recreation, and respite, helping to forestall further escalation of children through the child protection system (Citizens Advice, n.d.). Whereas advantaged areas respond to an inadequate judgement by increasing activity across the spectrum of interventions, but more so at the level of Children in Need, increased intervention in the most deprived areas skews fully towards the acute. By the dark logic of figure 19, and where child protection systems monitoring cannot address local authorities' strained socioeconomic circumstances, inspection may trigger unsustainable change, and unsustainably high spending on acute interventions. The opportunity cost of this response to the inspectorate may be preventative measures: investment in support at the level of Children in Need. In this way, inspection may expose and magnify inequities in resource allocation. These inequities may, in turn, precipitate further child welfare inequalities (D. L. Bennett et al., 2021).

Taken together, the dissonant signals in the data raise concerns about a vicious circle of quality degeneration: higher rates of costly child welfare interventions in response to a poor judgement, contributing to ever-diminishing resources for investment in ordinary and early help for children and families when needs first emerge. Given the greater frequency of inspection for persistently 'inadequate' local authorities, the cycle may quickly spiral. This concern finds its clearest expression in quintile 5 of the horizontal line plot (appendix 38, figure 54): local authority improvement trajectories are the exception, not the rule. It raises questions about the inspectorate's ability to promote long-term, sustainable quality improvement: absent tangible intervention into local authorities' socioeconomic and fiscal contexts, to address population needs and reverse disproportionately large budget cuts, interventions at the level of practice may simply be insufficient. Others have stressed the need for child protection systems monitoring that is both attentive and responsive to local circumstances. Hood et al note the uniformity of Ofsted's recommendations to local authorities despite the different socioeconomic contexts (Hood et al., 2019). Finding deprivation to be the greatest predictor of inspection judgements, Wilkins and Antonopolou stress the need for a stronger welfare orientation in the child protection system, fundamentally questioning the value of a practice-focussed monitoring system (Wilkins & Antonopoulou, 2020a, 2020b). Others have drawn attention to the powerful role of socioeconomic determinants of inspection judgement, both at the level of demand, in the form of deprivation, and supply, at the level of local authority expenditure on preventative services,

challenging Ofsted's previously held position on the absence of such a link (C. J. Webb et al., 2022). This study lends further weight to these arguments, indicating that the inspectorate may reflect and even exacerbate failure demand in the child protection system. More broadly, in political terms, obscuring the link between socioeconomic policies and their child welfare consequences can help legitimise prolonged austerity (Maron, 2021). Political sensitivities should not be permitted to interfere with robust action to improve the quality of child protection systems.

In acknowledging the unintended consequences of child protection systems monitoring in England, it is important to not lose sight of its essential purpose: ensuring the equity and quality of support to children and families. Evidence that exposes weaknesses in that system should not be turned to reductive arguments for dismantling and deregulation. Rather, my research highlights how limited approaches to monitoring may yield undesirable results, and how empowering the inspectorate to engage with the wider determinants of service quality, in domains conventionally considered to be outside of their purview, might lead to more effective intervention. Policies implemented in Scotland following their Independent Care Review may be instructive. Changes to the Scottish care inspectorate sought to prioritise children's voices, rights and long-term loving relationships, eschewing an over-reliance on process indicators in favour of collaborative approaches (Independent Care Review, 2020b). But crucially, these changes were nested within broader reforms addressing failure demand and the socioeconomic context of care (Independent Care Review, 2020a).

Limitations

The study has a number of limitations. My qualitative research and visual exploration of the data led me to hypothesise an immediate impact of inspection on child welfare intervention rates. Where inspection takes place at the end of a financial year, we cannot be certain that exposure precedes outcome. Off-site monitoring of local authorities' data means that a sudden, concerning rise in child welfare intervention rates may trigger a sudden inspection. However, it is highly unlikely that reverse causality could have produced the consistent dose response relationship between inspection judgement and child welfare intervention rates observed. This alternative hypothesis also runs counter to existing evidence, which points to higher demand following inspection (Hood, Grant, et al., 2016; Local Government Association, 2019). My models also assume a transient change in child welfare intervention rates in the year of an inspection; I therefore cannot establish whether changes are sustained. However, my descriptive analyses and investigation of model residuals show no indication that trends in children entering care stabilise

at a higher rate following inspection, or that inspection year changes are sustained. Hood and Goldacre's study overcomes this limitation using different modelling approaches, identifying a post-inspection fall in new child-in-need and child protection intervention rates (Hood & Goldacre, 2021).

A further limitation, as noted, is that the study cannot establish whether inspection-associated changes in child welfare intervention rates are appropriate or not. Qualitative and documentary research may shed further light on the discussion of the findings presented here, while analyses of individual-level data would offer important insights into the interplay between systems and outcomes for children. Future research might also investigate the role of inspection frameworks, with their different notice periods, durations and processes (appendix 35, table 43). The move to unannounced inspections may have inadvertently cemented bureaucratic, indicator-focussed practice; Murphy theorises that the loss of preparation time paved the way for constant 'Ofsted-readiness' (Murphy, 2021a). Crucially, whatever mechanisms underlie changes in child welfare intervention rates in an inspection year, a child and family's experience of the child protection system may be very different depending on where a local authority finds itself in a cycle of inspection. This has consequences for children, their families, the children's services workforce, and the financial health of local authorities. The 'perceived burden' of inspection goes beyond the time and energy required to plan for and host inspections (Ofsted, 2019). For some local authorities, warranted or no, the burden is concrete, manifesting itself at the level of demand.

Conclusion

This study investigates the English child protection system's responsiveness to the inspectorate, exposing dynamic thresholds for child welfare intervention in an inspection year: a greater child protection burden as inspection judgement worsens, and, for inadequate judgements, a differential impact on rates of children beginning an episode of need, by local authority deprivation. Children in more deprived areas judged inadequate do not benefit from the rise in supportive interventions seen in less deprived areas. This affirms both the importance of the inspectorate, and important weaknesses in its ability to motivate a child protection system's sustainable improvement journey. Discouraging risk averse practice while ensuring that appropriate thresholds are sustained over the longer-term is an important goal. But a narrow focus on practice is unlikely to address signs of failure demand in the child protection system. Where socioeconomic context constrains a child protection system's ability to deliver quality services, monitoring systems must note the problem and direct financial support. This has the potential to disrupt a vicious cycle of quality degeneration, allowing local authorities the

breathing space to invest in quality improvement. Thus, child protection monitoring systems should be guided by a holistic conceptual model of systems improvement, drawing on both logic and dark logic, and encompassing the socioeconomic determinants of quality.

Chapter 7: Discussion

In this final discussion chapter, I summarise key findings with reference to the thesis objectives, and outline strengths and limitations of the work. Policy recommendations are considered in light of recent policy developments in England, and, following a conclusion, directions for future research are outlined.

Key findings with reference to objectives

This thesis took as its starting point the need for a public health, preventative approach to care entry. I identified a lack of longitudinal research into the socioeconomic pattern of the recent rise in children entering care, untested hypotheses regarding the potential contribution of austerity and Ofsted policies to those trends, and an obscure local policy environment for tackling the socioeconomic drivers of care entry. I then filled these knowledge gaps. The five studies in this thesis address the full range of objectives:

Objective 1. Assess trends in socioeconomic inequalities in children entering care in England.

In a first study, I determined that inequalities in care entry increased after a change in trend in 2007. Unemployment was independently associated with care entry but did not explain trends in inequalities. Between 2007 and 2019, relative to prior trends, and after controlling for unemployment, the gap between most and least deprived areas increased by 15 children per 100,000 per year (95% CI 4-26). A visual assessment of inequalities in subgroups of children indicates that they are particularly wide, though stable, among infants; whereas, for children aged 16-17, inequalities increased rapidly with overall care entry rates. I found no evidence of rising inequalities in less acute child protection and child in need interventions overall – though they appear to be rising among children placed on a child protection plan due to the risk of emotional abuse.

Objective 2. Investigate potential drivers of changing inequalities, including expenditure on preventative children's services and child poverty.

A second study investigated the contribution of trends in prevention spend between 2011 and 2018 to trends in care entry at a year's remove, for younger and older children, controlling for employment and Regional child poverty. The models showed no association between changing prevention spend per child under 5 and changes in care entry for 1-4-year-olds. However, every £10 per child decrease in prevention spend was associated with an estimated additional 1.9 per

100,000 children aged 16-17 entering care the following year (95% CI 0.7 to 2.9), equivalent to 1 in 25 care entries in this age group over the study period.

The third study of the thesis establishes the major contribution of trends in child poverty to trends in care entry. Between 2015 and 2020 and controlling for employment rates, a 1 percentage point increase in child poverty was associated with 5 additional children entering care per 100,000 [95% CI 2–8]. I estimate that, over the study period, 8.1% [95% CI 5·0%–11·3%] of care entries were linked to rising child poverty, equivalent to 10,351 [95% CI 6,447–14,567] additional children taken into care in England over this period.

Objective 3. Assess the potential for local policy action on the drivers of inequalities.
In a fourth, qualitative study, I found that local policymakers within children's services were highly motivated to address the problem of rising care entry. But efforts to tackle the problem were bounded.

'Prevention' was an idea with force and resilience, but there appeared to be little or no scope for reinvestment under prolonged austerity. Participants spoke of fighting for the mere preservation of surviving services. They were still, repeatedly, regularly, forced to make cuts to fund care. This led policymakers to pursue short-term cost savings on the edge of care. Very occasionally, this was a first step in a longer-term strategy to shift the distribution of spend upstream, gradually counteracting vicious with virtuous investment cycles. But for many, the vision of proportionate universalism seemed beyond reach.

Participants raised the problem of poverty in relation to care entry, but hesitantly, tentatively, usually alongside other clusters of risk factors, rarely in relation to recent trends, and never in plain causal terms. In contrast, participants spoke confidently, matter-of-factly, of associations with area-based deprivation. Deprivation explained high care rates – but it also explained them *away*. Deprivation seemed a static force, fixed and unvarying, disconnected from the rapidly changing socioeconomic conditions of families' lives. Anti-poverty policies may yet remain low on local policy agendas in children's services.

Objective 4. Explore local policymakers' own theories with respect to potential drivers
Qualitative interviews revealed policymakers' preoccupation with inspection. They hypothesised that inspection cycles structured care rates, and that inspection drove rigid, process-oriented practice that risked exacerbating inequalities.

Following policymakers' own priorities, my fifth study set out to empirically test these recurring hypotheses. I found that inspection was associated with a rise in rates across the spectrum of

interventions. Worse judgements yielded higher rates. Between 2010 and 2020, inspection was associated with mean increase in care entry of 2.3% (95% CI 0.5%, 4.1%). Relative to local authorities that received no inspection, those judged to require improvement saw a 3.2% increase (95% CI 0.8%, 5.7%). For those judged inadequate, this rose to 4.6% (95% CI 0.9%, 8.5%). Inadequate judgements were reliably met with a spike in more acute care and child protection plan interventions across all local authorities – in more deprived local authorities this may be at the expense of more supportive child-in-need interventions. Assuming child-in-need interventions are protective, the inspectorate may contribute to failure demand, ultimately amplifying, rather than merely reflecting, pre-existing socioeconomic inequalities. Over time, overall, inspection judgements have not markedly worsened. Inspection probably does not explain a large proportion of the rise in care entry. But the greater risk of a poor inspection outcomes in more deprived areas (C. J. Webb et al., 2022) means that the inspectorate may intensify the clustering of children in care in more deprived parts of the country.

Collectively, these studies have deepened our understanding of socioeconomic inequalities in children looked after in England.

Strengths and limitations

The strengths and limitations of particular studies are considered in their respective chapters. This section addresses the strengths and limitations of the overall approach of the thesis.

Area-level analyses

I set out to conduct these studies at area-level. The local authority is a policy-relevant unit of analysis, appropriate to a consideration of place-based approaches to tackling inequalities. Place affects how we live our lives, and ecologic effects are particularly relevant when evaluating social policies (Morgenstern, 2008); area-level data are not simply "the poor cousin of individual level data" (C. Webb, 2021a, p. 2). But there are particular limitations to the ecologic approach. In particular, there is the potential for ecological fallacy when making inappropriate inferences about individuals from ecologic estimates (Morgenstern, 2008). The longitudinal ecological analyses cannot determine whether children who entered care were directly affected by the relevant exposure, nor whether exposures operate at individual, family or community level. I am clear throughout the thesis that inferences should be made at the local authority level and point to a range of evidence-informed theorised mechanisms for area-level associations, including those operating at the individual level. Future child welfare inequalities research in the UK and beyond should address the core research questions of this thesis using existing and newly

emerging linked, individual-level data (Lyons et al., 2009; The University of Adelaide, 2021; UCL, 2023).

In the qualitative work, given my finding of the major contribution of rising child poverty to care entry, and the power of central government to make welfare policy, a local focus may limit the scope and ambition of the analysis. Conversely, intransigent ideological opposition to redistributive policies at national level arguably justifies pragmatic forum-shopping, and the building of a more effective policy community from the ground up.

In consequence of the area-level focus, the findings of this thesis are, by design, specific to the English context, and principally relevant to local and national policymakers in England, particularly those representing the interests of more deprived parts of the country. Findings are not likely to generalise to different contexts with different political systems, welfare state regimes, policy responses to economic crises, and child protection and quality monitoring systems (N. Gilbert et al., 2011; M.-B. Ubbesen et al., 2015). But they may be of broad interest. High or rising rates of out of home care are a growing concern in several high-income countries with similarly mixed child protection and family support orientations (Bilson & Macleod, 2023; O'Donnell et al., 2016). And child welfare inequalities are an international phenomenon (Bywaters, Brady, et al., 2016). There is a need for more international comparative research to identify the most appropriate strategies for reducing child welfare inequalities in varied policy contexts.

Data limitations

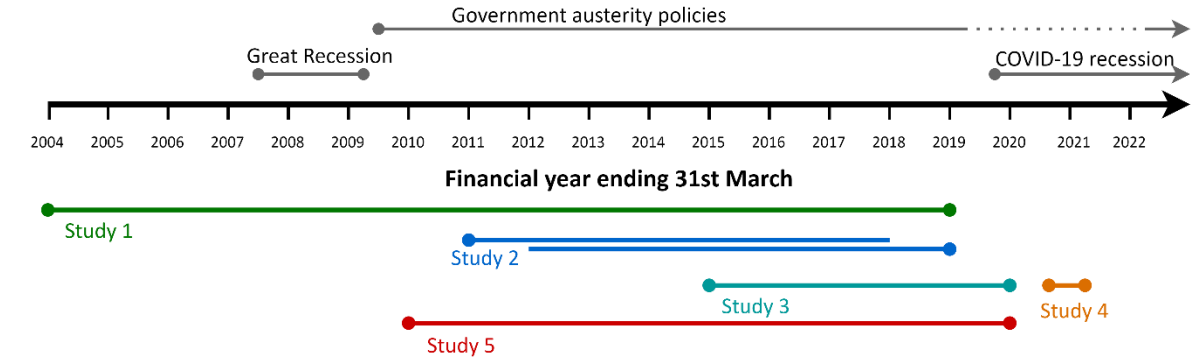
The use of administrative data on children in contact with the child welfare system limits what may be inferred. Although approximately one fifth of the child population of England comes into contact with the system (Bilson & Martin, 2017b), survey data show that maltreatment is far more extensive and intense than is reflected in official figures (R. Gilbert et al., 2009). Much maltreatment, including severe harm warranting care entry, remains hidden. It is not possible to say what constitutes an appropriate level of intervention, nor ascertain whether findings for children experiencing intervention extend to children experiencing comparable harm in the underlying population. But this was not my aim. The inequalities lens is clarifying in this respect. My conceptual model of pathways to inequalities (figure 4) ensures a focus on safely preventing care entry by targeting the mechanisms of the recent differential rise by deprivation, *however* thresholds for intervention may be defined. This model has intervention as a *potential* consequence of harm, not an inevitable one. The pathway is itself subject to differential consequences by social position – if, for example, children of parents in poverty are more visible, parents unduly surveilled and stigmatised (C. Webb et al., 2020b), or if families with material and

social capital are better able to evade or ward off intervention (Bernard, 2019). Risk-averse practice, or the rationing of care, linked to local authorities' funding relative to need, may fuel differential consequences (Bywaters et al., 2015). I interpret my findings accordingly.

Nevertheless, my research and resulting recommendations have broad implications for all children experiencing harm, not just children known to child welfare services. Research eschewing service data has repeatedly documented socioeconomic inequalities in child maltreatment (Berger, 2005; Doidge, Higgins, Delfabbro, & Segal, 2017; Doidge, Higgins, Delfabbro, Edwards, et al., 2017; Farrell et al., 2017; Hussey et al., 2006; Isumi et al., 2018; Jackson et al., 2018; M. H. Lloyd & Kepple, 2017; Marcal, 2018; Roberts et al., 1998). Inequalities in care entry are not solely attributable to differential consequences of maltreatment. They operate via the whole range of mechanisms of inequality outlined in the guiding conceptual framework of the thesis. Policies to redress children's differential exposure to poor socioeconomic conditions – to improve childhoods – and proportionate universalist support to tackle differential vulnerability, are likely to reduce the burden of maltreatment, including among children who never come to the attention of services.

In quantitative analyses, I encountered challenges relating to the availability of high-quality longitudinal data on socioeconomic exposures of interest. In the second study using local authority finance data, I cannot distinguish between primary, secondary and tertiary preventative services, limiting my ability to isolate the specific mechanisms of inequality. Likely variation in recording practices between and within areas over time affected the analytic approach, as did the lack of area-level data on the potential confounder of child poverty for the study period. Only after the fortuitous publication of the new 'children in low income families' data in March 2020 did the third study of this thesis become feasible, though only covering a five-year timespan (figure 22). I addressed these limitations through appropriate aggregation, choice of study design and robustness tests. I also deepened my understanding of potential data quality issues in the qualitative interviews and preliminary conversations with policymakers. Collectively, the studies of this thesis span just over 17 years, and cover the 2008 recession, austerity, and the early years of the COVID-19 recession. Data are interpreted in light of their respective time spans and policy contexts (figure 22). Finally, and despite the foregoing limitations, there are powerful ethical reasons for conducting policy-responsive research into urgent public health issues using imperfect data, provided methods appropriately account for those imperfections – especially when they are the only data available (C. Webb, 2021a).

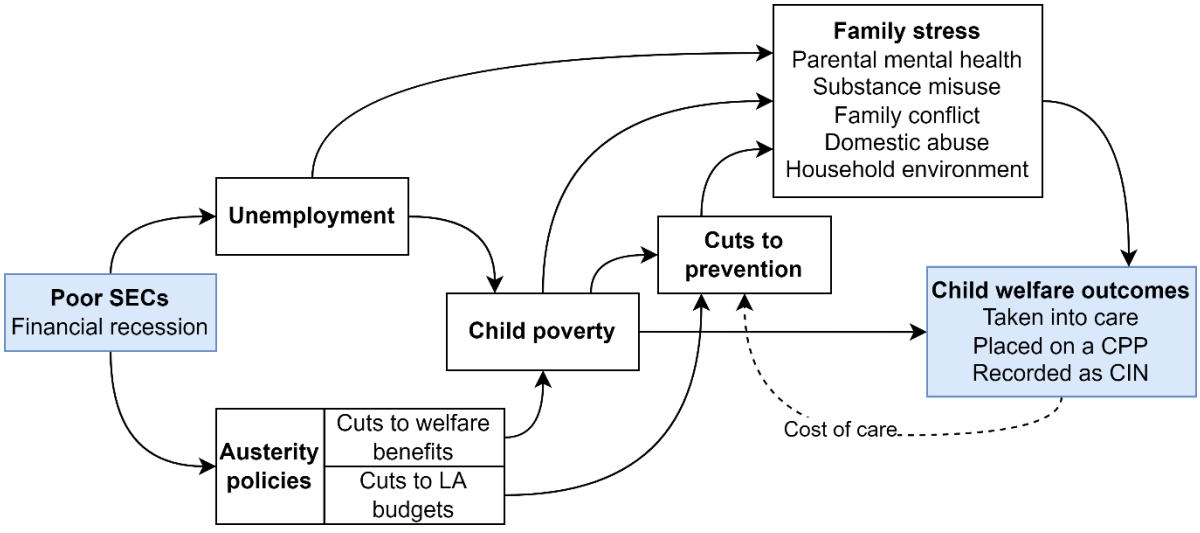
Figure 22. Timespan of the thesis studies, in relation to national economic events.



Study design

In each of my analyses, the study design was appropriate to the research objective, and the nature of the data. Quantitative analyses were informed by an a priori theoretical model of the relationship between socioeconomic conditions and care entry (figure 23). The model is based on literature reviews. It incorporates elements of Masarik and Conger's family stress model for the relationship between poverty and child maltreatment, recognising the mediating role of stress in structuring children's experiences of harm (Masarik & Conger, 2017). But the direct pathway from child poverty to care entry also recognises the contribution of material hardship to challenges in adequately caring for children, and reduced family capacity for investment in the conditions that help keep children safe – for example, in respite, support, better housing and neighbourhood conditions (Bywaters et al., 2016). This model guided the analytic approach, including the ways in which I sought to control for potential confounders. It takes the recession as a trigger event, and traces, over time, unidirectionally, the causal pathways leading to care entry.

Figure 23. Logic model showing the theorised pathways informing the studies in the thesis.



Note. SECs – socioeconomic conditions; LA – local authority; CLA – Children starting to be Looked After; CPP – children placed on a child protection plan; CIN – Children in Need).

There is a long tradition of using external shocks such as economic crises to study the causes of disease (Craig et al., 2012). The impact of extreme and differential changes in exposure may be evaluated as a 'natural experiment'. The case for such an evaluation is strongest where, as in this research, there is a reasonable expectation of significant health impact of unknown effect sizes, random allocation of the exposure would be unethical, and the policy implications are potentially far-reaching (Craig et al., 2012). However, where the allocation mechanism is non-random, evaluations are susceptible to bias (Vocht et al., 2020). In the studies of this thesis, local authorities' levels of exposure to changing socioeconomic conditions are related to pre-existing deprivation levels and cannot be considered to have been randomly allocated. To account for potential bias, I used within-between regression models, which, in the estimate of within-area effects, control for all baseline differences between area and trends affecting all areas equally; I also applied regression adjustment and conducted a range of robustness tests. However, I cannot rule out the possibility of residual confounding. Findings are interpreted accordingly and considered in the context of the wider literature. Further research should address similar research questions using alternative data and study designs.

Although making use of the recession as a 'departure point' lends itself to longitudinal area-level analyses, focussing attention on the pathways activated by sudden change, my theoretical model remains a simplification of reality. The dotted arrow leading backwards from the 'child welfare outcomes' to 'cuts to prevention', via the rising cost of care, merely hints at this greater complexity. Figure 23 does not show, for example, the pathway that circles back from family stress to further poverty and unemployment. Nor does it trace the long-term and intergenerational poor health and social outcomes for children experiencing maltreatment and intervention, leading to pressures on public services and the social safety net. This could inflame anti-welfare discourses and herald further austerity policies, so closing another, larger feedback loop. Figure 23 also assumes that levels of preventative spend are in part determined by anticipated levels of need linked to changing poverty. But in theory, if those preventative services take the form of anti-poverty support, the direction of the arrow may be reversed. In short, I made modelling decisions based on the best available evidence, and sought to manage endogeneity in specific studies through the use of temporal lags. But I do not account for real-world complexity. Future analyses of structural problems in children's services, and evaluations of interventions, might adopt a complex systems approach that carefully considers the

"interdependent elements within a connected whole" (Rutter et al., 2017, p. 2602), using causal loop diagram (Roxas et al., 2019).

In contrast to the quantitative work, the qualitative study emphasises complexity, simultaneity, causal feedback loops, and the series of compounding crises. Policymakers in qualitative interviews were bracing for a new wave of fiscal conservatism that seemed sure to follow the costly covid crisis, which itself highlighted and magnified the negative impacts of austerity policies on services and communities – policies precipitated by the last economic shock. This doubling of the crisis, and doubling down on past policies, seems likely to intensify the phenomena I have researched in this thesis. In this way, the qualitative analyses enrich our understanding of these phenomena, putting 'flesh on the bones' of prior findings while clarifying the bounded nature of the quantitative enquiry.

Mixed methods integration

Multiphase sequential research

In this project, each study may be taken on its own terms, the method tailored to its objective (Denzin, 2006). But each study also informs subsequent studies, building, sequentially, towards my principal aim of understanding inequalities in care entry at local level in England, with a view to informing policy (W. Mason et al., 2020). This is an important strength of the thesis. The rising inequalities identified in my first study launched the two succeeding studies of the drivers of those inequalities. Interpreting and comparing the results of these analyses shaped my lens on the issue, and on the major policy levers for tackling it. I applied this lens to my qualitative interview study with policymakers in Children's Services. The more deductive approaches to data collection and analysis fostered an integrative dialogue with prior quantitative findings – whereas the more inductive approach to the first part of the interview made space for participants' own priorities. Unprompted, participants raised the research questions addressed in the final quantitative study of this thesis, on the dark logic and inequalities impact of the inspectorate – a different facet of the phenomenon of rising care entry, but one that emphasises the need for holistic, complex systems thinking (Rutter et al., 2017).

Integration using the Diderichsen framework

The thesis is more than the sum of its studies. The conceptual framework, adapted from Diderichsen et al. (Diderichsen et al., 2001), helps draw together the disparate insights and build a coherent picture of the mechanisms of rising child welfare inequalities (study 1). They can be integrated as follows. Cuts to preventative services for adolescents may have exacerbated

differential vulnerability to poor socioeconomic conditions, or differential consequences of experiencing harm, contributing to the rise (study 2). But differential exposure to child poverty appears to have played a greater role overall, and for more children (study 3). The respective importance of these mechanisms is not reflected in local priorities (study 4). When policymakers in children's services speak of prevention, they usually mean services to counter vulnerability and minimise harm – the traditional remit – rather than support to reduce exposure to poor socioeconomic conditions. Policymakers theorised that the mechanisms of inequalities may be amplified by the inspectorate. Intervention rates do rise in the year of a negative Ofsted inspection (study 5). Given that high deprivation and lower prevention spend are associated with worse judgements, the inspectorate can be said to reflect socioeconomic inequalities operating at the level of service quality (C. J. Webb et al., 2022). There is also suggestive evidence of an additional inequalities effect of inspection at the level of children in need, which may fuel failure demand for care. But the inspection-associated rise in care entry does not differ by area-level deprivation. The inspectorate reflects, but does not straightforwardly amplify, the differential consequences of experiencing harm, by socioeconomic conditions. Policymakers may be likely to dwell on the role of the inspectorate because it demands individual accountability for structural inequalities. It does not actively oppose the mechanisms of inequality that undermine the integrity of the child welfare system.

Mixing methods

Each study may be discretely labelled either quantitative or qualitative. But the fourth study of this thesis was, from inception to completion, a more mixed methods endeavour. This mixing of methods strengthened the coherence of the study. I sought the participation of policymakers from outlier local authorities, places that defied the very norms, the very law of averages, that underpin my quantitative research – and I used quantitative methods to do it. I adapted the mixed effects model of my first study, extracted local-authority-specific deviations from average trends, and targeted recruitment to 'deviant' areas with unexpected trends in care entry after accounting for deprivation and employment trends (appendix 29).

The integration of qualitative and quantitative methods persisted in my use, during interviews, of elements of data visualisation produced in prior studies. I presented figure 7 of this thesis, alongside plots showcasing inequalities in prevention spend, and plots tailored to the local context (appendix 32). I sought to co-construct interpretations of these plots, testing my own understandings of trends and indicators against those of my participants, welcoming discordant, congruent, and alternative perspectives – but ultimately forcing engagement with the

epistemology that informed my thinking, narrowing and directing the inquiry. Finally, and although the small sampling frame did not allow for a primarily comparative approach, qualitative data were interpreted in light of a local authority's characteristics, particularly local deprivation levels.

Cross-fertilisation

Integration was not a purely linear cumulative process: preliminary conversations with policymakers, a policy placement within Liverpool City Council, planning and protocol-writing for the qualitative study, and the recruitment, data collection and analysis that followed – these spanned the whole course of the project, overlapping with different stages of the quantitative analyses. Cross-fertilisation was inevitable. For example, a deeper understanding of the different approaches to prevention for younger and older children, borne of the policy placement, led to my search for age-specific effects of prevention spend. Or, in the integration process, important synergies between quantitative and qualitative findings did not dawn until part-way through preparation for a presentation, to a lay audience, of the third study of this thesis. The search for plain-English words to explain the parcelling out of estimates in my within-between models sparked the connection: the comparable within and between-area estimates of the effect of child poverty on care entry in my quantitative model collapses policymakers' apparently unconscious distinction, in the language they use and the conviction they show, between the effects of poverty over time (hesitant, uncertain), and the effects of deprivation across place (definite, taken-for-granted). This insight came late, with the force of a revelation. I am, as a researcher, as a person, continually engaged in meaning making practices that cannot be suspended or ordered, linearly or chronologically, or segregated by methodology. I interpret and reinterpret, building meta-inferences that are fundamentally integrative (W. Mason et al., 2020).

Entrepreneurial integration

I applied Kingdon's multiple streams approach to the qualitative data in the service of *particular* policy goals, derived from preceding quantitative studies. I looked for obstacles to achieving them – deviation or distraction, silence or dissonance – and extrapolated lessons for policy entrepreneurs. The underlying normative policy goals might fairly be contested. I acknowledge the limitations of the research that gave rise to them, the contingency attending them, as well as legitimate competing policy interests. Consciously and self-critically, this directed, strategic policy analysis nevertheless aims for integration beyond knowledge construction. It aims for social transformation. It steps into the political world, hoping to learn from it, to change it. This ambition is consistent with the Rawlsian theoretical position outlined in chapter 5, and which

sets this research at odds with the inequitable distribution of power and resources in society, at odds with the idea of storing knowledge in the academy, and leaving it there to gather dust. In the qualitative analysis, therefore, and in knowledge-dissemination and policy engagement efforts, I undertake a kind of entrepreneurial integration. This can be considered a strength of the thesis. It is, at least, the result of deliberate choice.

Implications for policy

The rising numbers of children in care is a problem squarely on the national policy agenda. The Conservative Party's 2019 manifesto committed to undertaking an independent review of children's social care that would:

> *"address major challenges, including the sharp increase in recent years in the number of looked after children, high and rising unit costs, the inconsistencies in children's social care practice and outcomes across the country, and the failure of the system to provide sufficient stable loving homes for children."* (UK Government, 2021, p. 1)

The review launched in March 2021 and delivered its final report in May 2022, gathering evidence as I produced and disseminated it. This thesis offers solutions; each chapter is accompanied by a set of policy recommendations. Here, I summarise these recommendations, considering them in light of recent policy developments, before drawing them together. For a summary of policy impact to date, see appendix 42.

Study 1

Study 1 shows that, between 2007 and 2019, the risk of being taken into care in England became increasingly clustered in poor places. Yet the funding formula for distributing central government funds to local authority Children's Services, based on 2001 data, was last revised in 2013-14 (MacAlister, 2022). One key policy implication of study 1 is that this funding formula is no longer fit for purpose; it needs urgent updating to ensure appropriate resource allocation going forward. This was an important recommendation of the independent review of children's social care (MacAlister, 2022) and, in their response, the Government committed to updating, publishing, and consulting on a new formula before the next Spending Review (Department for Education, 2023b). Evidence from this thesis may be used in future consultations to ensure that resources for local authorities are re-linked, and remain linked, to local need.

Study 2

Inequitable funding is not just a consequence of rising inequalities in care entry, but a likely contributor. Study 2 shows that unequal cuts to preventative children's services likely contributed to the clustering of care entry in more deprived parts of the country. It highlights the importance of equitable reinvestment in prevention. But specifically, it points to the protective impact of adolescent services, which may yield relatively short-term benefits, reducing steep care costs that might otherwise have been incurred – cost savings that can then be reinvested in the wider ecology of prevention. This has important implications for policy. In recent decades, early years education, once thought of as education's 'Cinderella sector' (Osgood, 2009; Willis, 2010), has risen up the UK policy agenda. Investment in the early years is now rightly considered an important strategy for improving life course outcomes while reducing health inequalities (Marmot, 2010). But the early years focus may have left adolescent services particularly vulnerable to cuts in the austerity years, and less likely to attract new investment going forward. The evidence of study 2 is that this uneven focus may be misguided.

The findings of study 2 were promoted by the National Children's Bureau (National Children's Bureau, 2022). They were cited in the interim and final reports of the independent review of children's social care (MacAlister, 2022; The independent review of children's social care, 2021). And they were presented, along with other core findings of this thesis, to HM Treasury and Department for Education officials involved in the implementation of review recommendations. The review itself clearly diagnoses the vicious circle of crisis intervention and loss of prevention. It calls for £2 billion in investment over 5 years to rebalance spend away from acute intervention, towards family support, and, once that balance is achieved, a dedicated ringfenced grant for family help (MacAlister, 2022). Family help teams are intended to be multidisciplinary; family help offers would be expected to meet the needs of young people at risk of extra-familial harm (Department for Education, 2023b). But adolescent services risk being seen as a special subset of family help, or the province of specialist teams. Universal and proportionate universalist services for young people such as youth club and community-based youth work, remain low priority. Instead, when promoting universal services, the review emphasises 'family hubs' – children's centres by another name, and largely focussed on the early years (HM Government, 2022). Although these measures, if implemented correctly, could help alleviate the mechanisms of inequality operating at the level of the delivery of services, study 2 suggests that there should be a greater initial focus on young people's services.

In their response to the review, and acknowledging the false economy of reduced spending on support services, the government pledged £45 million over two years to trial the 'new model of family' help via multidisciplinary teams, across 12 pilot areas – a fraction of what was called for

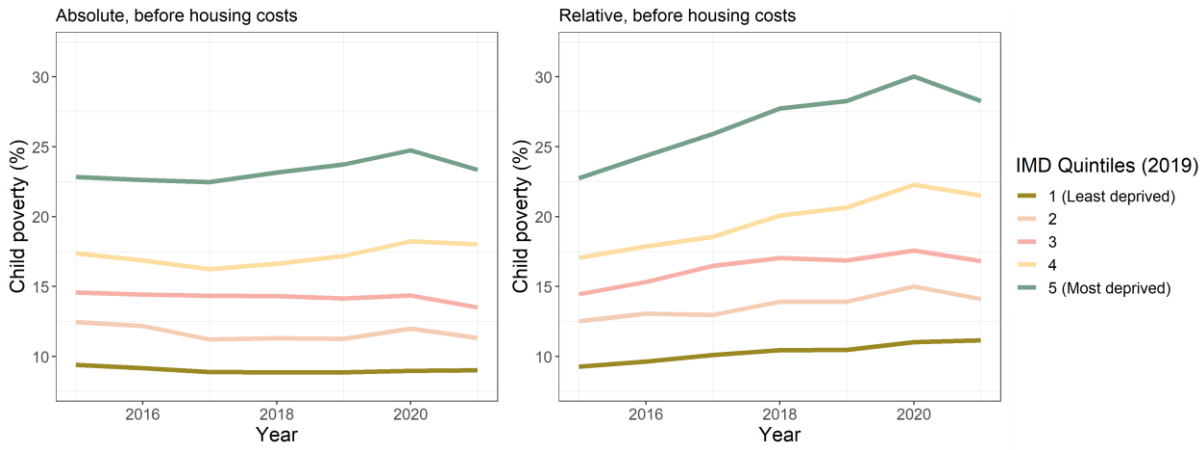
(Department for Education, 2023b). In parallel, a number of other family support initiatives are being trialled or extended. These are piecemeal, funded from different pots covering different time periods, and often focussed on family hubs, or on particular behavioural risk factors or needs (Department for Education, 2023b). The Government's plans are, perhaps, a step in the right policy direction. But even collectively, they do not match the ambition laid out in the care review, nor do they represent funding for prevention equivalent to the £632 million cuts to prevention between 2011 and 2019, and that would be required, annually, to restore and sustain what was lost (University of Liverpool, 2021). They do not represent a sea-change or a 'radical reset' (MacAlister, 2022). They do not reflect evidence of the value of young people's services.

Study 3

Study 3 shows that the clustering of care entry risk in poor places likely reflects the increasing geographical clustering of need linked to rising child poverty. This is not a surprising finding – international evidence of a causal relationship between poor socioeconomic conditions and child maltreatment was mounting before the publication of study 3 (Bywaters, Bunting, et al., 2016). But it is highly policy relevant. Resistance to the idea of a causal relationship between poverty and child removal has for some time been manifest in policy circles in England (Gove, 2013). The England-specific evidence of study 3 undermines this resistance. It shows that policies tackling differential exposure to child poverty are key to safely preventing care entry while reducing inequalities in outcomes across England. It also shows the timing of effects: an increase in child poverty is associated with an increase in care entry within the year. The direct costs of out-of-home placements for those children, and the opportunity costs to other parts of the local system, are close to immediate. Welfare benefits for families with children should be seen, not simply as a cost, but as an investment in child health and wellbeing likely to yield short, medium and long-term returns.

Increasing the generosity of the social safety net for families with children is the most efficient way of rapidly shifting the distribution of exposure to child poverty – as recently became clear during the pandemic, following the swift introduction, then revocation, of the universal credit uplift (Winchester, 2021). The fall in child poverty in 2021, steeper in more deprived areas (figure 24), is largely attributable to the national uplift (Cribb & Wernham, 2022). This shows that child poverty, this major driver of care entry, is also highly amenable to policy intervention. The obstacles are political. The same stigmatising, anti-welfare political rhetoric used to justify cuts to benefits following the recession (Stewart et al., 2021), is still deployed today, for political ends (@SuellaBraverman, 2022).

Figure 24. Trends in absolute and relative child poverty by LA index of multiple deprivation (income domain), 2015-21.



It is in the context of the revocation of the uplift that study 3 initially received press attention (Butler, 2021). In response to media inquiries, the head of the independent review of children's social care, Josh McAlister, stated that, while poverty had "spending consequences for children's social care", welfare was not "in the scope of this review" (Butler, 2021). From the outset, the review's terms of reference vastly limited its potential (UK Government, 2021). However, the final report of the independent review of children's social care uses unambiguously causal language to describe the relationship between deprivation and child abuse and neglect, and acknowledges that, in the absence of policy action on child poverty, reforms to the sector "risk treating the symptoms and not the cause" (MacAlister, 2022, p. 27). It seems no accident that the launching anecdote in the foreword foregrounds the experience of Ava who, "[a]s she saw it, […] came into care because her parents couldn't afford to look after her properly" (MacAlister, 2022, p. 4). Poverty is in your face. The review can therefore be considered to have raised the level of policy discourse in the UK (MacAlister, 2022), countering the prevailing silence and denialism in previous government policy documents and political rhetoric (Department for Education, 2016; Featherstone et al., 2019; Gove, 2013).

In addition to child-friendly welfare policy, the evidence of study 3 is that local authorities should implement a range of anti-poverty strategies. Robust anti-poverty work at local level may help reduce differential exposure to child poverty, or differential vulnerability to that exposure, albeit on a small scale, at local level. The care review echoes these important, if more modest, policy recommendations. It notes the need for income maximisation support, help from local food banks, charities and faith organisations, and social workers' discretionary use of delegated budgets to help families (MacAlister, 2022) – though tellingly, pilot studies point to social workers' restrained use of these budgets, their concern over potential 'dependency', and the need for a shift in organisational culture to allay these concerns (Grey et al., 2019; Westlake et al.,

2019). Embedding anti-poverty policies at every level of the local authority may help effect this culture change.

Study 4

Study 4 highlights policymakers' reluctance to stigmatise poverty by drawing too direct a link with care entry. Their hesitation, confusion, caution – a kind of prevailing conceptual aphasia – may help keep the problem of poverty from the local policy agenda. Promoting a causal framing, clarifying the causal pathways, and troubling the distinction between family-centred poverty and place-based deprivation, may help counteract the discursive silence, shifting the local culture, paving the way for anti-poverty policies.

The findings of study 4 do suggest that reinvestment in prevention of all kinds, for all ages, is a core policy strategy in outlier local authorities deemed to be performing well, and a policy goal, albeit a more remote one, in local authorities managing steeply rising rates of care entry. Policymakers' belief in preventative services endures, even amidst the financial and statutory pressures that ensure their relentless de-prioritisation. On the whole, therefore, the findings suggest that local policymakers need little persuasion or knowledge translation when it comes to prevention, but dedicated policy entrepreneurialism, within and beyond local government. To hype the policy problem, better and higher profile indicators of prevention spend are needed – indicators that distinguish between types of preventative services, primary, secondary and tertiary, and that supersede, or at least compete with, the indicator currently in popular use, 'acute costs averted'. Retellings of the story of austerity should not fail to note central government's accountability for the consequences, as they cascade through local systems. Instead of speaking with weary acceptance of the status quo, austerity should be framed as a present and deepening crisis. And, given the widespread normalisation of the cuts, inter-sectoral and international comparisons may help bring new perspective. In making the case for future reinvestment, and rather than hearkening back to an ambivalent past – either the golden or decadent age of Sure Start implementation, depending on the narrator – all local policymakers might rally around a new vision of well-funded, scaled up services. Currently, preventative services are lean or starved, but often highly prized by policymakers. Support for their expansion is likely to be a uniting principle.

Study 5

Finally, study 5 shows that institutional factors may also contribute to the clustering of care entry in more deprived areas. External shocks to the fragile child protection system can inadvertently

amplify the runaway mechanisms of inequality, exacerbating differential consequences of poor socioeconomic conditions. This is true even of interventions intended to improve service quality, such as inspection. More deprived local authorities, and local authorities that spend less on prevention, are more likely to receive a poor inspection judgement (C. J. Webb et al., 2022); poor judgements lead to a spike in acute interventions (study 5). Whether this spike represents an appropriate recalibration of thresholds, or inappropriate risk-averse practice, it certainly reflects, and may even exacerbate underlying socioeconomic inequalities.

The inspectorate has great power and influence when it comes to setting policy priorities at a local level. It must therefore be part of any solution. This might begin with acknowledgement of the role of socioeconomic context and funding in determining not just service quality, but also the likely consequences, intended and unintended, of remedial action. Some progress has been made on this front. Ofsted have retreated from their former position that inadequacy is "not a function of size, deprivation or funding, but of the quality of leadership and management" (Bywaters et al., 2017; Ofsted, 2016b, p. 5). In 2017, they recognised a link between deprivation and service quality in response to emerging evidence, and further evidence has accrued (C. J. Webb et al., 2022). Study 5 was shared with Ofsted officials, and supplementary material requested and shared. This openness to new evidence is promising. An inspectorate engaged with the socioeconomic determinants of service quality has the potential to galvanise a paradigm shift in Children's Services.

Summary implications

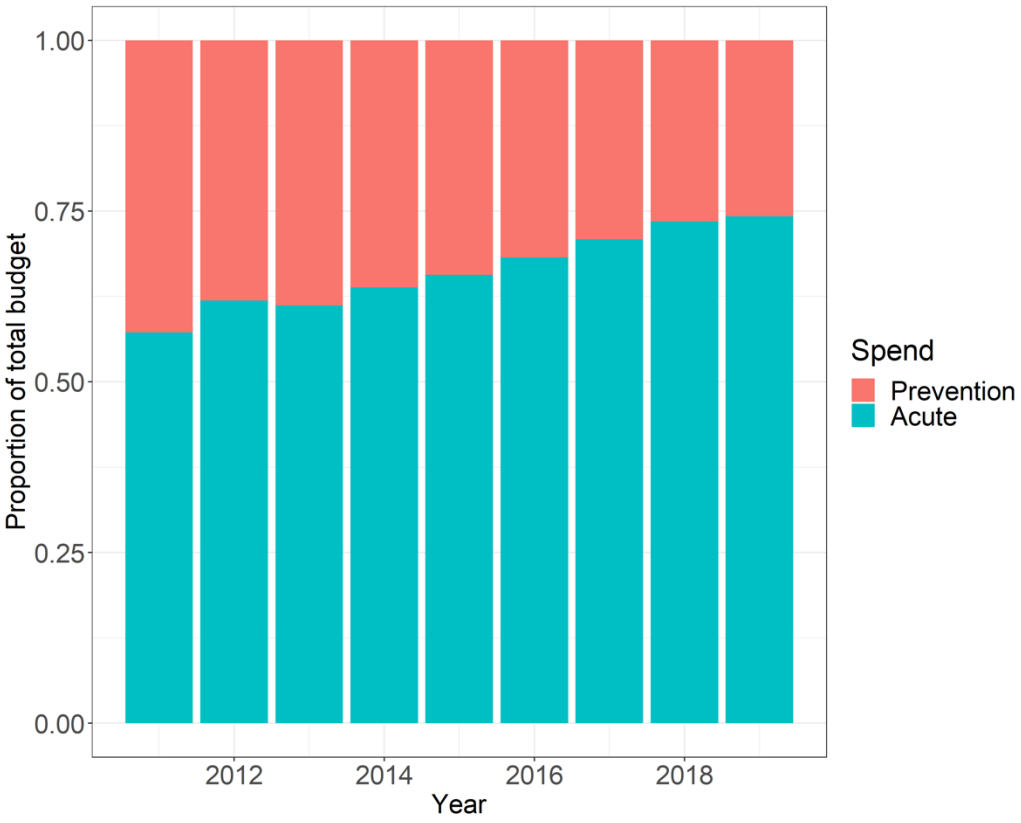
The risk of children being taken into care has become increasingly clustered in poor places (study 1), potentially reflecting the increasing geographical clustering of need linked to rising poverty (study 3), the unequal distribution of services to prevent or counteract that need (study 2), and quality assurance processes that do not properly recognise or counteract the mechanisms of rising inequality – and therefore perpetuate them (study 5). This ever-greater burden of out-of-home care in more deprived areas may reinforce policymakers' perception that higher care rates are an inevitable feature of deprived places (study 4). Paradoxically, therefore, the changing geographical pattern could reinforce a defeatist narrative in which inequalities are considered fixed and unavoidable, when it should in fact signal the responsiveness of the problem to policy change.

The evidence from this thesis is that child poverty is a key driver of children being taken into care, with a greater effect than prevention activities, and a more immediate effect, across a greater share of the child population (study 3). In times of rising adversity, within a short

timeframe, prevention activities for younger age groups may be more limited (study 2). But the evidence does suggest that investment in youth and youth justice services prevents older adolescents entering care within a relatively short timeframe. The effects are meaningful considering the costs of out-of-home placements for these children. In under a decade, the cumulative costs of care associated with the cuts to prevention wipe out the savings. Yet policymakers in local authority Children's Services find themselves unable to protect preventative services from deep and persistent cuts. Costly statutory duties inevitably take precedence, and increasingly so, as 'stored-up trouble' (All Party Parliamentary Group for Children, 2018), trouble unprevented, failure demand, overwhelms local systems. My thesis spotlights helplessly counter-productive decision-making in the annual mission to balance the budget. The longer the vicious circle spirals, the harder it may be to reverse (figure 25).

The inspectorate is often seen as part of this vicious problem (studies 4 and 5). There is evidence that Ofsted fails to counteract the mechanisms of inequality. Yet Ofsted could be a powerful ally in local authorities' efforts to shift the distribution of spend towards prevention. This would require greater attention to the socioeconomic determinants of service quality and care entry.

Figure 25. Trends in the proportion of Children's Services budget allocated to prevention and acute spend, adjusted for inflation to 2018 prices using the consumer price index deflator, 2011-19.



Note. For a definition of prevention spend, see appendix 10. Any expenditure that does not fall under 'prevention' is considered 'acute'.

In order of priority, therefore, the evidence shows the need for (1) immediate national welfare policy changes to reduce child poverty, (2) reinvestment in services for young people that realise cost savings in the relatively short term, enabling (3) reinvestment in early years prevention. All of these measures are likely to improve service quality (C. J. Webb et al., 2022), and should therefore form part of Ofsted's continuous quality improvement efforts (4). The current strategy of part reinvestment in family hubs, while neglecting youth services, amid high levels of child poverty and a rising cost of living, may be inefficient, ineffective and wasteful.

Textbox 1. Key recommendations for safely reducing care entry, while reducing socioeconomic inequalities

National policy

Reduce differential exposure to adverse childhood socioeconomic conditions, whether parents are in or out of work.

- Invest in children: increase the generosity and availability of welfare benefits for families with children, reversing cuts and removing punitive sanctions.
- Ensure that active labour market programmes offer support into higher paid employment appropriate to the family context (McKnight et al., 2016).
- Promote policies that require or incentivise employers to improve wages, wage progression, and job security, stability, quality and flexibility (McKnight et al., 2016).

Reduce differential vulnerability to, and consequences of, adversity and harm

- Increase central government funding to local government.
- Update the formula used to allocate children's social care resources such that funding remains linked to deprivation-related need.
- Guarantee longer-term sustainable local government funding to enable longer-term strategic planning and investments at local level.
- While giving local authorities wide discretion over the use of funds, strengthen incentives for delivering preventative services, consulting with local policymakers (e.g. ringfenced funds, strengthened statutory framework for prevention).
- Introduce more accurate and detailed reporting of expenditure on children's services, consulting with local policymakers to minimise additional administrative burdens.

Local policy

Reduce differential exposure and vulnerability to child poverty

- Routinely offer income maximisation support to child-welfare involved families.
- Invest in local welfare assistance schemes, with robust referral mechanisms from Children's Services.
- Implement anti-poverty policies in Children's Services, the wider local authority, and across multiagency partnerships.
- Implement anti-poverty practice frameworks to complement existing practice models.
- Foster a supportive practice environment for tackling poverty (e.g. discuss poverty in reflective practice and supervision, welcome challenges to inequitable policies, offer training as needed, encourage the use of delegated budgets to address families' material circumstances, emphasise standard practices linked to income maximisation.

Reduce differential vulnerability to adversity and harm

- Reinvest in preventative adolescent services, consulting with young people and the voluntary sector.
- Reinvest in the wider ecology of preventative children's services, consulting with families and the voluntary sector.
- Factor likely care cost implications into decisions about resource allocation.
- Raise the status of prevention spend as an indicator of local commitment to investing in children.

Ofsted

Reduce the differential consequences of experiencing harm

- Monitor and report on the inverse care law in Children's Services quality.
- Evaluate the unintended consequences of inspection, including differential consequences by local economic conditions.
- Implement strategies to mitigate unintended consequences.
- Where local economic conditions hinder improvement efforts, make recommendations to central government regarding additional resources.
- Raise the status of prevention spend, as an indicator of local commitment to investing in children.

Further research

The limitations outlined in this chapter light the way to further research. First, the qualitative analysis is incomplete. This thesis presents only qualitative results pertaining to the socioeconomic drivers of care entry in the problem stream. Further research will delve into the policy and politics streams, in keeping with Kingdon's holistic multiple streams approach (Kingdon, 1984). Analysis of the policy stream will cover the characteristics of the policy community and likely policy entrepreneurs, the range of policy ideas, and the criteria for their survival. Analysis of the politics stream will address the public mood, organised political forces, and political consensus-building (Kingdon, 1984). Outputs will follow.

Second, there is a need for further research into socioeconomic risk factors for care entry using linked, individual-level administrative data for whole populations (Allnatt, Elliott, et al., 2022). The data infrastructure in the UK is rapidly expanding. In England, researchers will soon be able to apply for access to Education and Child Health Insights from Linked Data, linking existing health, education and social care information for all children (Mc Grath-Lone et al., 2021; UCL, 2023). In Wales, researchers can now access children's social care and family justice datasets through the Secure Anonymised Information Linkage Databank (Allnatt, Lee, et al., 2022; Bedston et al., 2019; Lee et al., 2022). Research using these data have already yielded valuable

insights into risk factors for mothers at risk of their infant being removed into care (Griffiths et al., 2020). Further work is underway. In a study currently in submission, Melis and Bedston et al. use survival models and an inequalities lens to examine the risk of becoming looked after from birth, by small-area deprivation and maternal and child perinatal characteristics; population attributable fractions contextualise the likely impact of policies to tackle modifiable risk factors (Melis et al., n.d.). A next step for this work might be assessing how the impact of poor socioeconomic conditions on care entry is mediated by the family-level factors that often draw focus in social workers' risk assessments (Hood et al., 2021). Beyond the UK, in Denmark (Bengtsson et al., 2019), Sweden (Almquist et al., 2021), and parts of Canada (Brownell et al., 2017) and Australia (The University of Adelaide, 2021), data platforms for researching child maltreatment have been, or are being, built and sustained. These have already generated important insights into, for example, the causal impact on care entry of reducing the generosity of welfare payments (Wildeman & Fallesen, 2017), the drivers of the intergenerational transmission of out of home care (Straatmann et al., 2021), and the impact of child removal on parental mental health (Rajesh et al., 2023). Researchers should take advantage of this developing data infrastructure across high income countries to replicate key research and undertake international comparisons, teasing out the implications for policy.

Finally, the international evidence on risk factors for out-of-home care, and consequences thereof, remains relatively diffuse, siloed by country, by discipline. This should be addressed using evidence synthesis approaches. I am currently participating in two systematic reviews, one on the relationship between disadvantaged socioeconomic circumstances and the risk of being taken into out-of-home care in developed countries (Melis et al., 2021), the other on socioeconomic and psychosocial outcomes of parents with children in out-of-home care (Straatmann et al., 2022). References are for the review protocols. These reviews will help collate existing evidence and identify notable gaps in the literature.

This is fertile ground for innovative, mixed methods research to identify and act upon the mechanisms of rising socioeconomic inequalities in out-of-home care in the UK and beyond.

Conclusion

This thesis has used local authority-level quantitative and qualitative data to extend and enrich our understanding of inequalities in children looked after in England at local area-level. It has assessed trends in inequalities in care entry, identified drivers of inequalities, and explored the status of these drivers on the local policy agenda. Responding to policymakers' theories of inequalities, it has uncovered the inspectorate's contribution to the social patterning of out-of-

home care. The thesis goes beyond simply making recommendation for policy. Harnessing insights from the qualitative research, it proposes policy entrepreneurial strategies to more clearly frame the problem of inequalities care entry in such a way as to promote effective policy solutions.

Appendices

Study 1 Appendices

Appendix 1. Harmonising data.

Where changes to LA boundaries in 2009 led to the formation of two upper tier unitary authorities from a single county, CLA numbers for preceding years were split between these LAs based on their 2009 child population ratio. In the publicly available data, for reasons of confidentiality, numbers from one to five inclusive were supressed. For each missing value I therefore imputed a random integer in this range. There were only three cases of missing data, across two years, early in the implementation of the CIN census: age stratified data were not available for Havering and Newham in 2012, or Norfolk in 2013. Given the low degree of missingness, I performed complete case analyses.

Appendix 2. Model formulae.

Segmented linear regression model for age standardised CLA rate, including linear spline:

$$y_{ij} = \beta_0 + \beta_1 x_{1ij} + \beta_2 x_{2i} + \beta_3 x_{3j} + \beta_4 x_{4j} + \beta_5 x_{3j} x_{2i} + \beta_5 x_{4j} x_{2i} + U_i + V_i x_{3j} + \varepsilon_{ij}$$

Let:

- y_{ij} denote the rate of children taken into care in LA i in year j
- x_{1ij} denote covariate lagged unemployment rate, coded as a continuous variable and dependent on LA i and on year j
- x_{2i} denote the weighted rank of deprivation dependent on LA i, a continuous variable ranging from 0 to 1
- x_{3j} denote the first spline term, which is year j coded as continuous variable and centred at 2004
- x_{4j} denote the second spline term, a continuous variable that takes the value of 0 for year j≤2007, and j−2007 for year j>2007. This defines a segmented regression with knot in 2007.
- $(U_i, V_i) \sim BVN(0, S_0)$ denote random intercept and slope for LA i
- $\varepsilon_{ij} \sim N(0, S_1)$ denote the random error for LA i in year j

Linear regression model for age standardised CPP and CIN rates:

$$y_{ij} = \beta_0 + \beta_1 x_{1ij} + \beta_2 x_{2i} + \beta_3 x_{3j} + \beta_4 x_{3j} x_{2i} + U_i + V_i x_{3j} + \varepsilon_{ij}$$

Let:

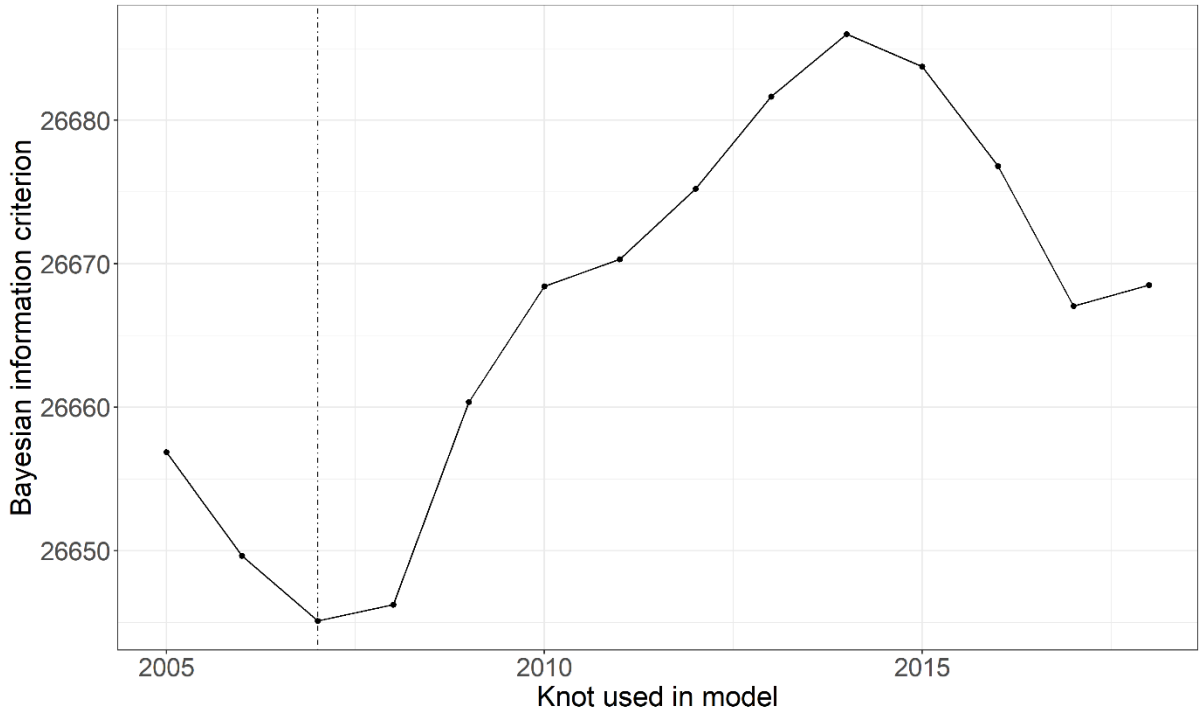
- y_{ij} denote the rate of children taken into care in LA i in year j

- x_{1ij} denote covariate lagged unemployment rate, coded as a continuous variable and dependent on LA i and on year j
- x_{2i} denote the weighted rank of deprivation dependent on LA i, a continuous variable ranging from 0 to 1
- x_{3j} denote year j, coded as continuous variable and centered at 2004
- $(U_{i,}\ V_i) \sim BVN(0, S_0)$ denote random intercept and slope for LA i
- $\varepsilon_{ij} \sim N\ (0, S_1)$ denote the random error for LA i in year j

Appendix 3. Breakpoint analysis.

In the model for age standardised CLA rates, I used an iterative search procedure in order to identify which breakpoint offered the best fit. Figure 26 shows the BIC value for each successive breakpoint used in the model. This led me to fit a knot in 2007.

Figure 26. Breakpoint analysis for the model estimating age standardised CLA rates.

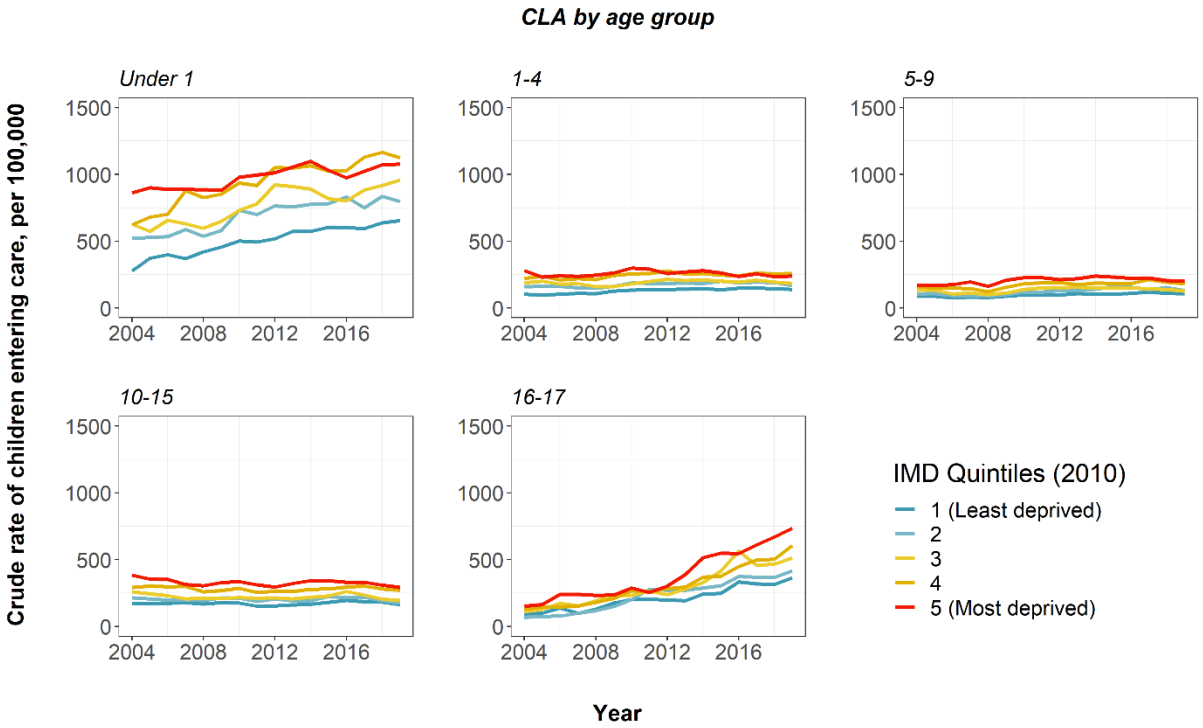


Appendix 4. Age stratified analyses of crude CLA, CPP and CIN rates by LA deprivation quintile.

For the age stratified analyses, I calculated rates for each of my outcomes using child population data, broken down by the same age bands available in the routine and FoI data, sourced from the Office for National Statistics (ONS) mid-year population estimates, accessed via Stat-Xplore (Office for National Statistics, 2019b). These formed the denominator. I plotted rates for all age-stratified outcomes, across years for which data were available, enabling a comparison, by age

group, across outcomes. Figure 27 shows that the rise in CLA rates was mainly due to children under the age of 1 and children aged 16-17 entering care. Though wide, the gap in rates between most and least deprived LAs for the youngest age group does not appear to be widening. In the oldest age group however, there is a pronounced increase in the gap from 2010.

Figure 27. Trends in CLA rates by LA income deprivation quintile, 2004-2019, stratified by age group.



I sought to determine whether trends in CLA rates by age group were reflected through the funnel of children's social care (figures 28-29). The funnel remains widest in children under the age of 1. However, the gap between most and least deprived areas is relatively stable over time across all outcomes. In children aged 16-17, the funnel narrows considerably from CIN to CPP, then widens once more at the level of CLA. The discontinuity is unique to this age group and may relate to the CPP's focus on risks within the family home. Acute risks to older children are often in the community, from peer groups and criminal networks. This may lead children to be placed directly on a CLA when need becomes acute. The gap in rates between most and least deprived areas appears to be widening in both CIN and CLA for this older age group: trends in CLA may well be reflecting, and concentrating, trends in CIN.

Figure 28. Trends in CPP rates by LA income deprivation quintile, 2012-19, stratified by age group.

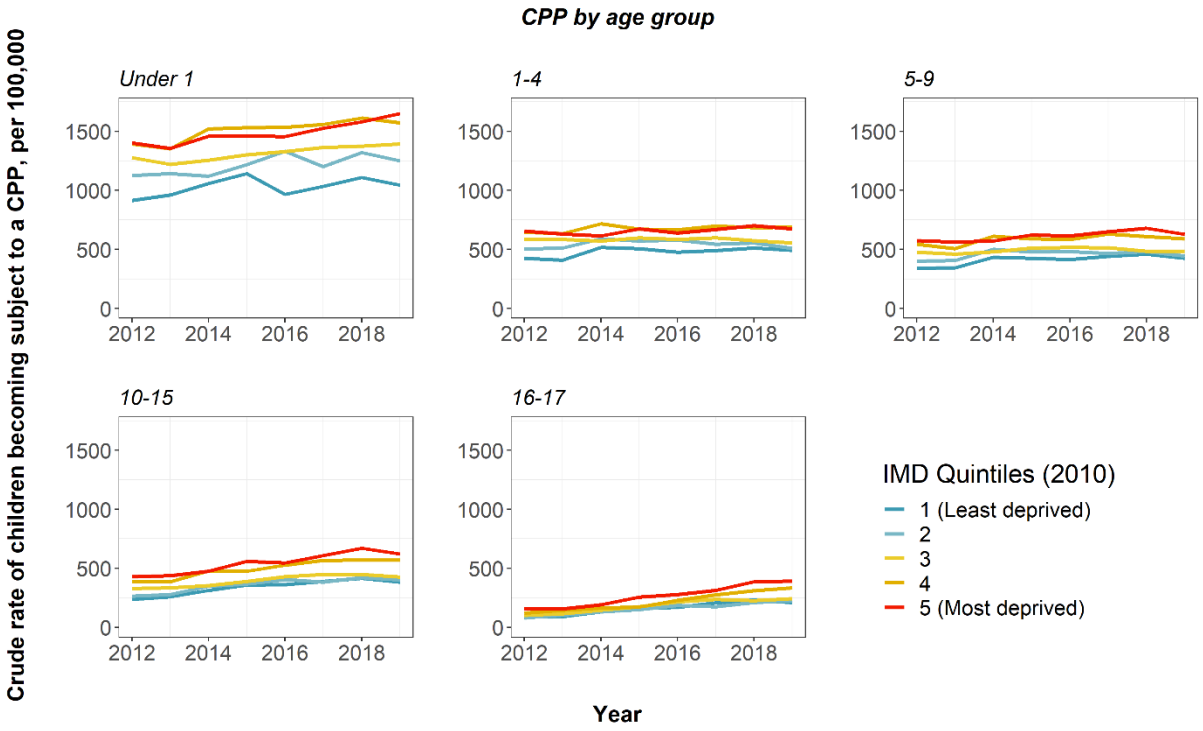
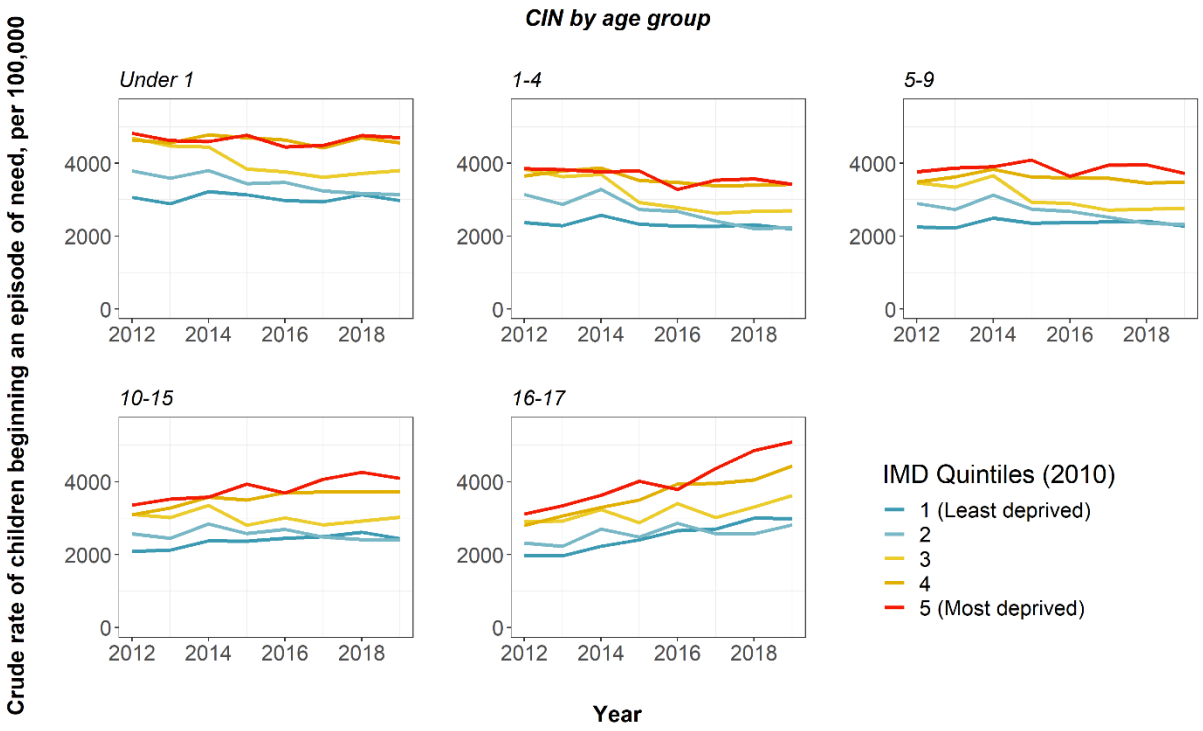


Figure 29. Trends in CIN rates by LA income deprivation quintile, 2012-19, stratified by age group.

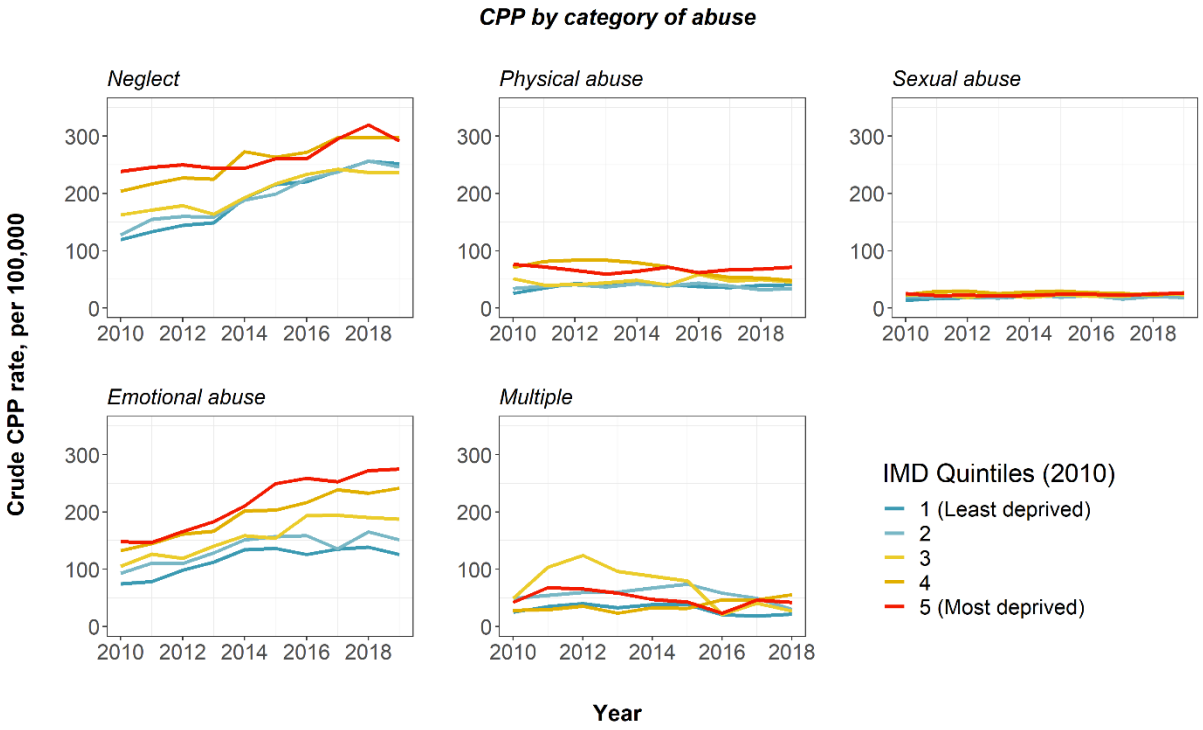


Appendix 5. Crude CPP rates by deprivation quintile, stratified by category of abuse.

I plotted CPP rates for all categories of abuse, enabling a comparison across categories (figure 30). Neglect, then emotional abuse, are the most commonly recorded primary categories of

abuse. Rates for these categories are rising. Where neglect is recorded, the gap in rates between most and least deprived areas appears to have declined slightly from 2014. In contrast, where emotional abuse is recorded, the gap increased dramatically from 2014. Further research is needed to understand how recording practices, child welfare systems, social care practices, and underlying need, may differ by area level income deprivation.

Figure 30. Trends in CPP rates by LA income deprivation quintile, 2010-19, stratified by category of abuse.



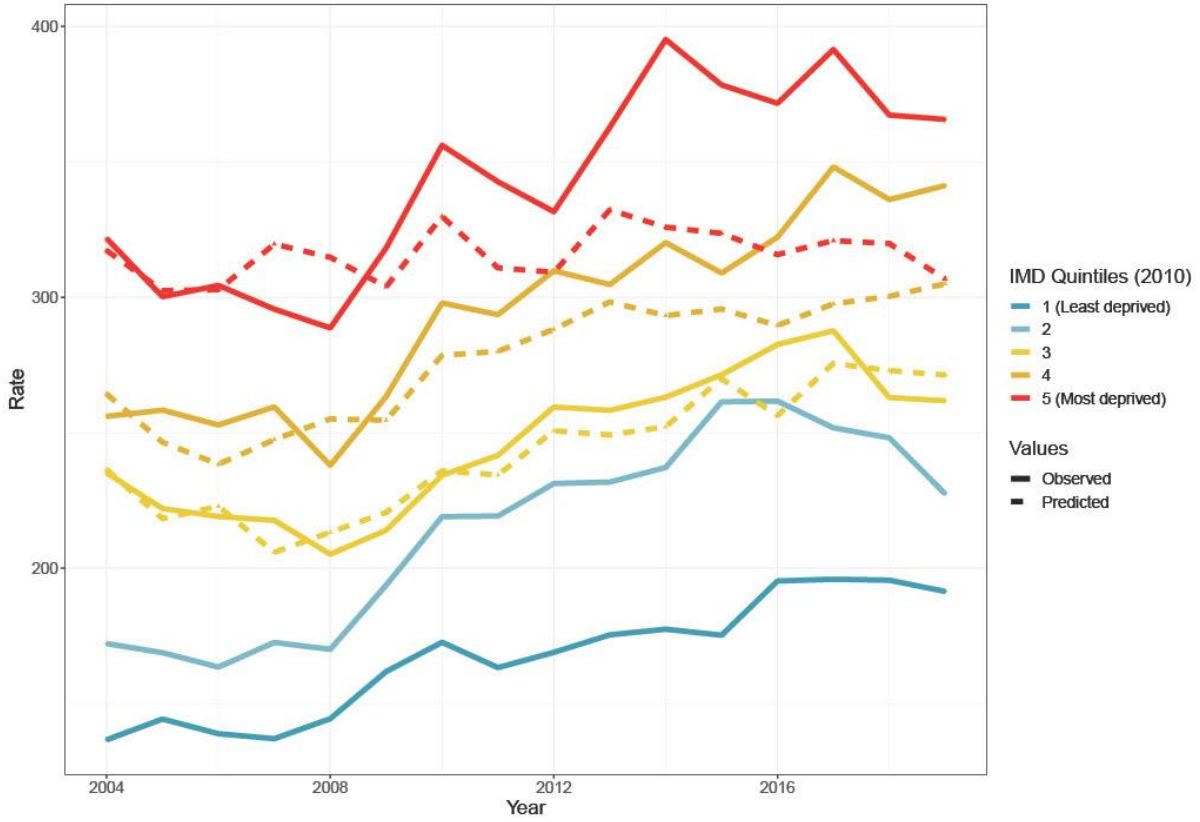
Appendix 6. Estimates derived from the model.

I estimate expected CLA rates if the rise in rates from 2007 had occurred in more deprived LAs as it did in the median LA (such that 50% of the 2008 child population live in more deprived areas):

$$y_{ij} = \beta_0 + \beta_1 x_{1ij} + \beta_2 x_{2i} + \beta_3 x_{3j} + \beta_4 x_{4j} + \beta_5 x_{3j} x_{2i} + \beta_5 x_{4j} \boldsymbol{x_5} + U_i + V_i x_{3j} + \varepsilon_{ij}$$

Where $\boldsymbol{x_5}$ denotes the weighted rank of deprivation in the median LA in the cumulative distribution. This scenario preserves the change in trend from 2007 and unemployment rates, but posits that, after controlling for unemployment rates, the change in trend should not disproportionately affect areas based on their levels of income deprivation. Figure 31, showing LAs grouped by quintiles, illustrates predicted rates according to this scenario.

Figure 31. CLA model - estimates based on the model, in a counterfactual scenario of a more equal rise in CLA rates from 2007.



Appendix 7. Full model output.

The following tables summarise the full output for each of the models in turn: age standardised CLA rates; age standardised CLA rates, log-transformed (results exponentiated); age standardised CPP rates; age standardised CIN rate

Table 9. Output of the main regression models estimating child welfare intervention rates.

Model	**CLA, 2004-2019**	**CLA, 2004-2019**	**CPP, 2012-2019**	**CIN, 2012-2019**
Dependent variable	CLA rate (per 100,000)	Log-transformed CLA rate (per 100,000)	CPP rate (per 100,000)	CIN rate (per 100,000)
Intercept	104.31** (71.56, 137.05)	114.41 ** (101.41, 129.07)	365.74** (306.30, 425.19)	2,190.79** (1,798.70, 2,582.88)
Unemployment rate (lagged)	8.95** (6.48, 11.43)	1.04** (1.03, 1.05)	-10.41 (-22.17, 1.36)	68.52 (-3.06, 140.10)
Spline 1	3.43 (-3.41, 10.27)	1.03** (1.01, 1.06)	12.69** (3.09, 22.29)	-6.76 (-74.71, 61.19)
Deprivation	192.93** (140.01, 245.86)	2.51** (2.07, 3.05)	304.12** (198.42, 409.81)	1,637.02** (949.98, 2,324.07)
Spline 2	1.89 (-5.21, 8.99)	1.00 (0.98, 1.03)	-	-
Spline 1: deprivation	-11.38* (-22.27, -0.49)	-0.94** (-0.90, -0.98)	4.38 (-11.20, 19.95)	47.08 (-62.71, 156.88)
Spline 2: deprivation	14.86* (3.55, 26.16)	1.06** (1.01, 1.10)	-	-
Observations	2,400	2,400	1,197	1,195
Log Likelihood	-13,279.74	211.43	-7,599.82	-9,727.10
Akaike Inf. Crit.	26,581.49	-400.87	15,217.63	19,472.20
Bayesian Inf. Crit.	26,645.10	-337.25	15,263.42	19,517.98
Note:	* p < 0.05, ** p < 0.01	* p < 0.05, ** p < 0.01	* p < 0.05, ** p < 0.01	* p < 0.05, ** p < 0.01
		All coefficients are exponentiated		

Appendix 8. Residual diagnostics.

The residuals from the model are normally distributed. Plotting standard normal quantiles against the data results in a relatively linear pattern. When grouped by quintile, predicted and observed values of CLA rates appear relatively consistent:

a. CLA model (absolute inequalities)

Figure 32. CLA model - absolute inequalities - histogram of standardised residuals.

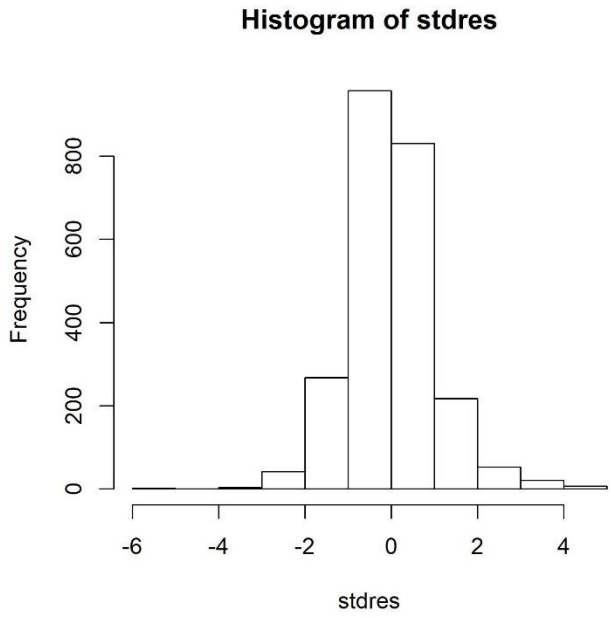


Figure 33. CLA model - absolute inequalities - quantile quantile plot.

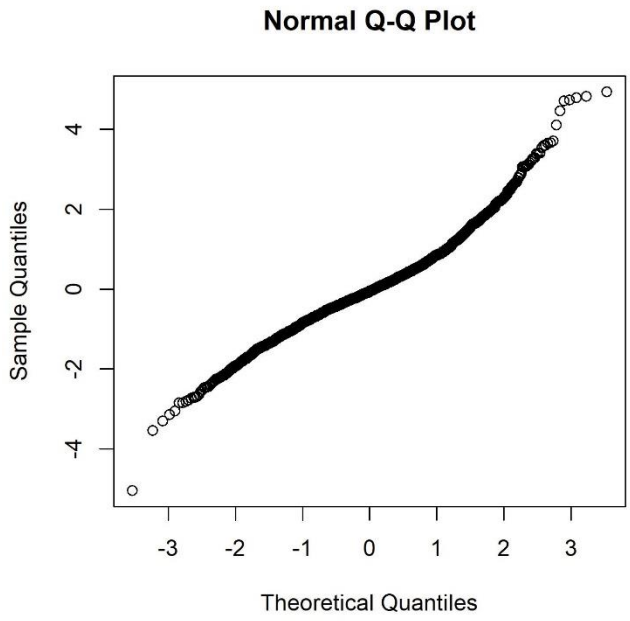
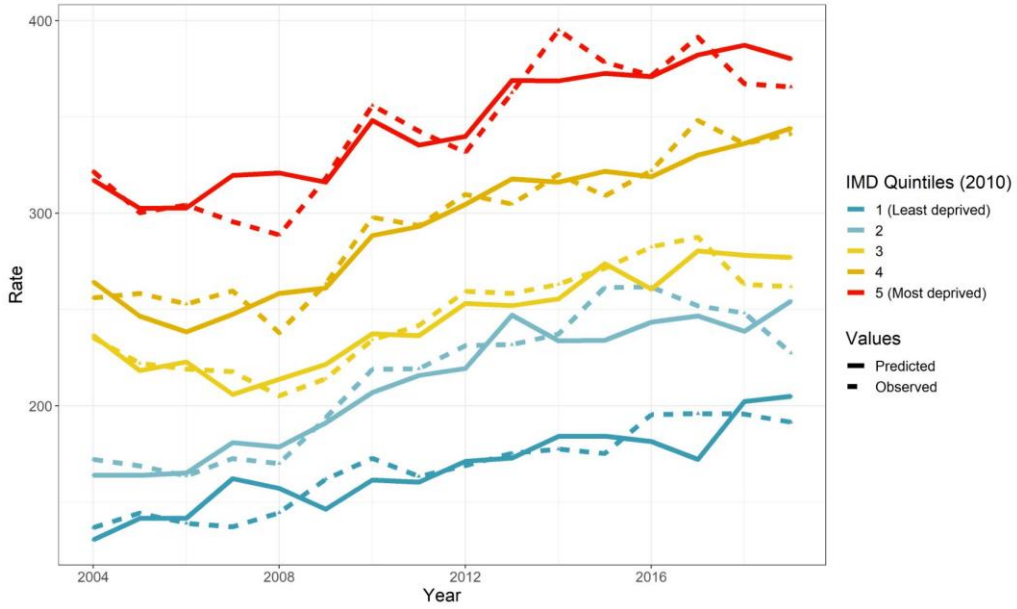


Figure 34. CLA model - absolute inequalities - comparing observed and predicted rates.



b. CLA model (relative inequalities)

Figure 35. CLA model - relative inequalities - histogram of standardised residuals.

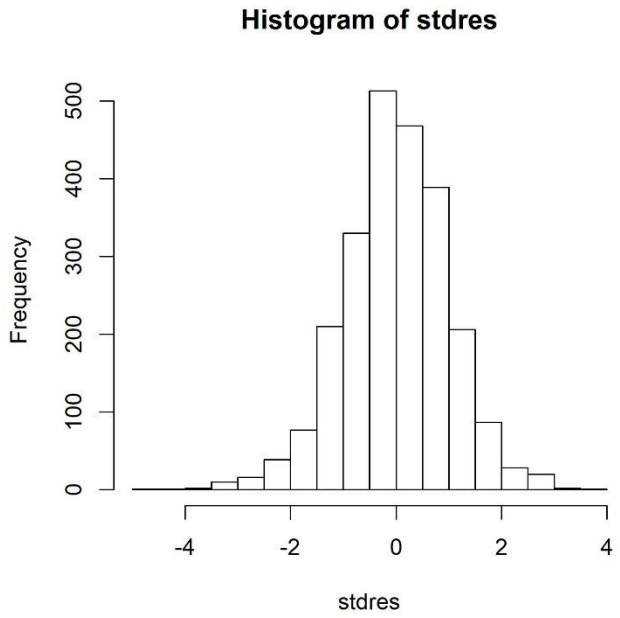


Figure 36. CLA model - relative inequalities - quantile quantile plot.

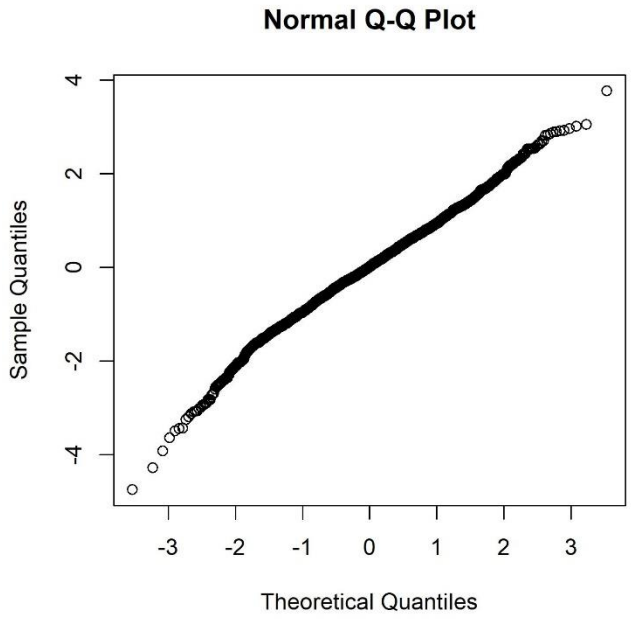
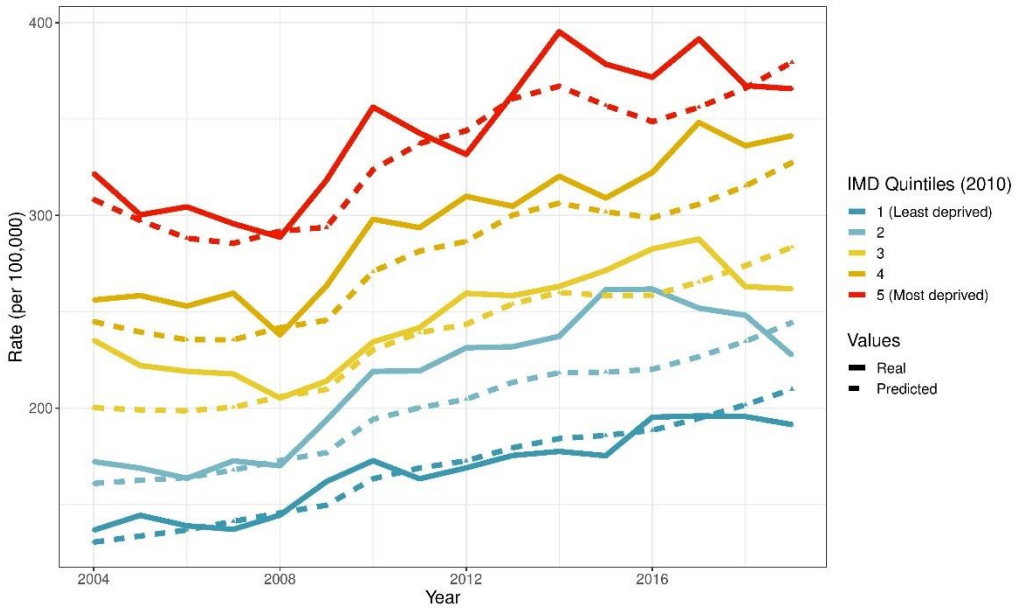


Figure 37. CLA model - relative inequalities - comparing observed and predicted rates.



c. CPP model

Figure 38. CPP model - histogram of standardised residuals.

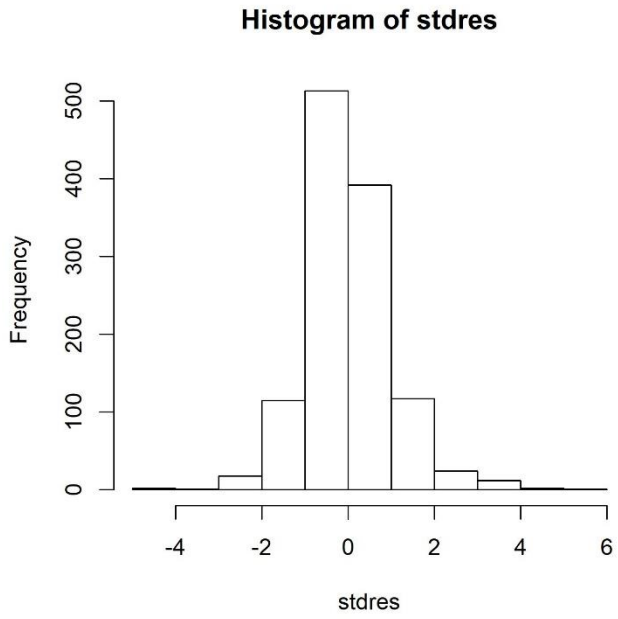


Figure 39. CPP model - quantile quantile plot.

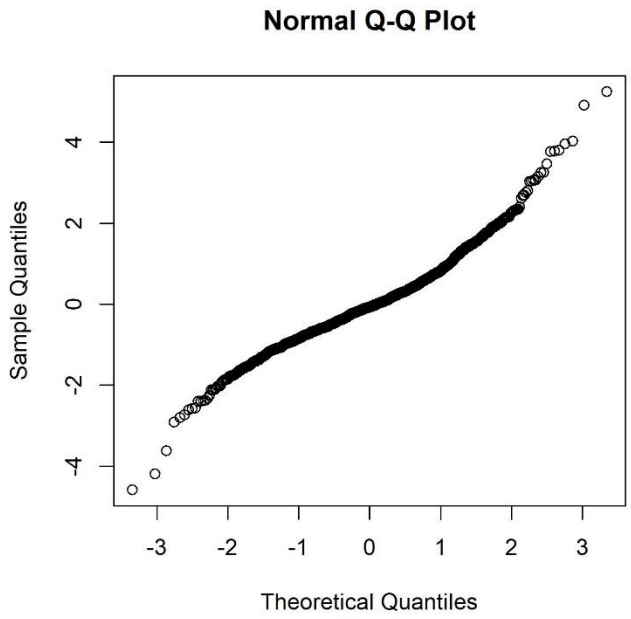
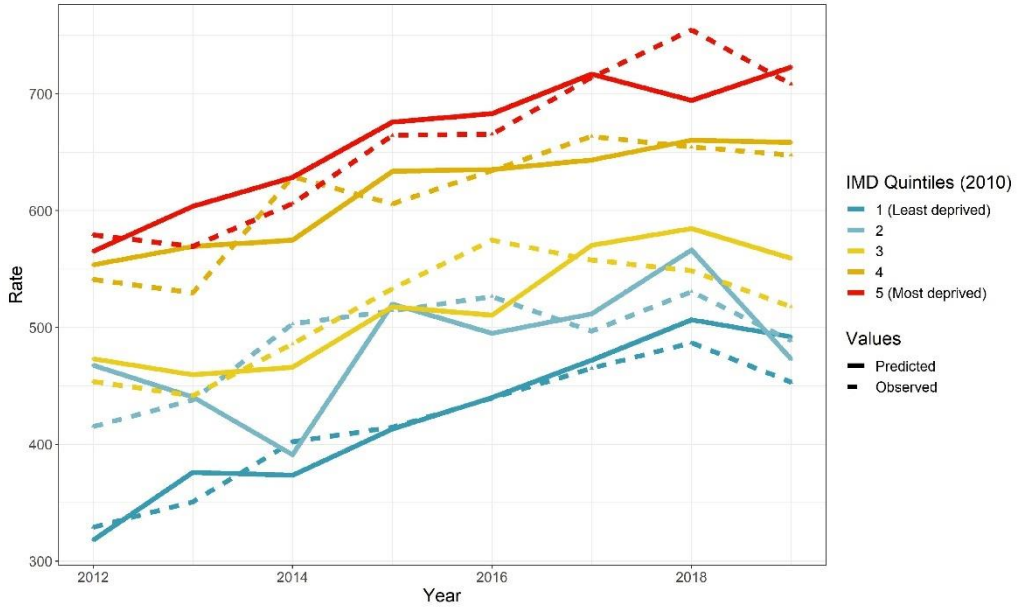


Figure 40. CPP model - comparing observed and predicted rates.



d. CIN model

Figure 41. CIN model - histogram of standardised residuals.

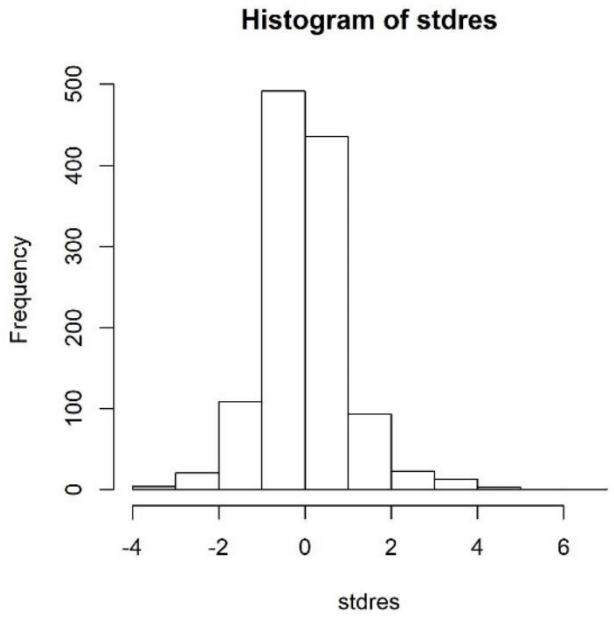


Figure 42. CIN model - quantile quantile plot.

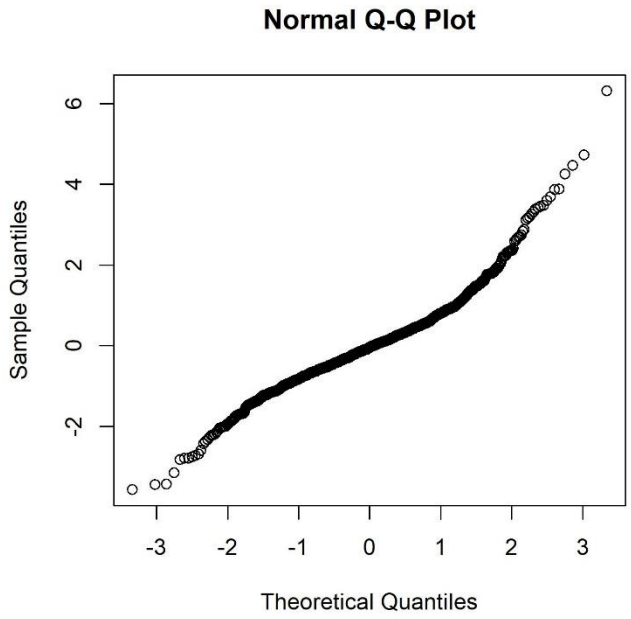
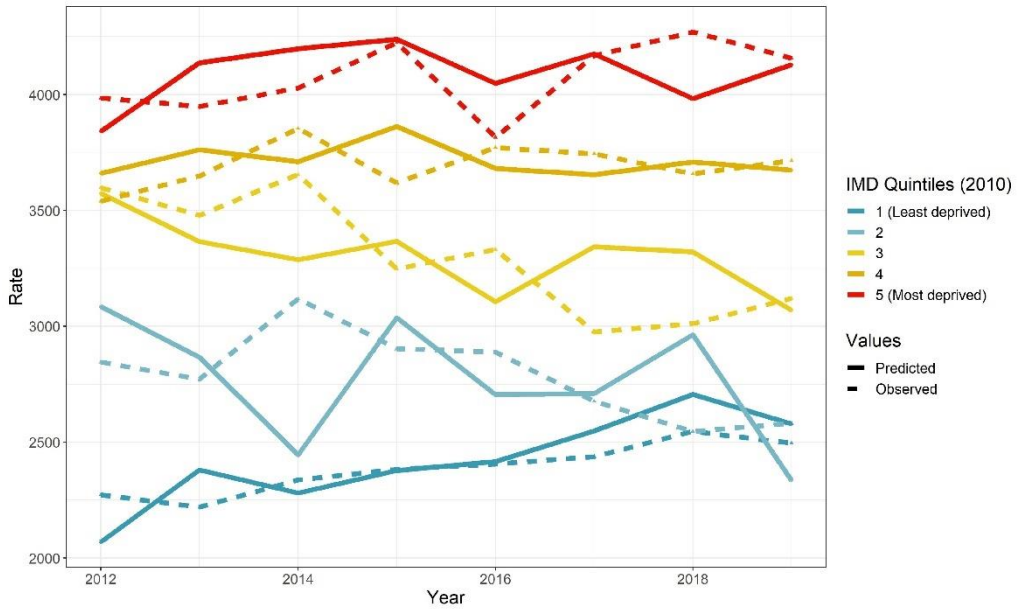


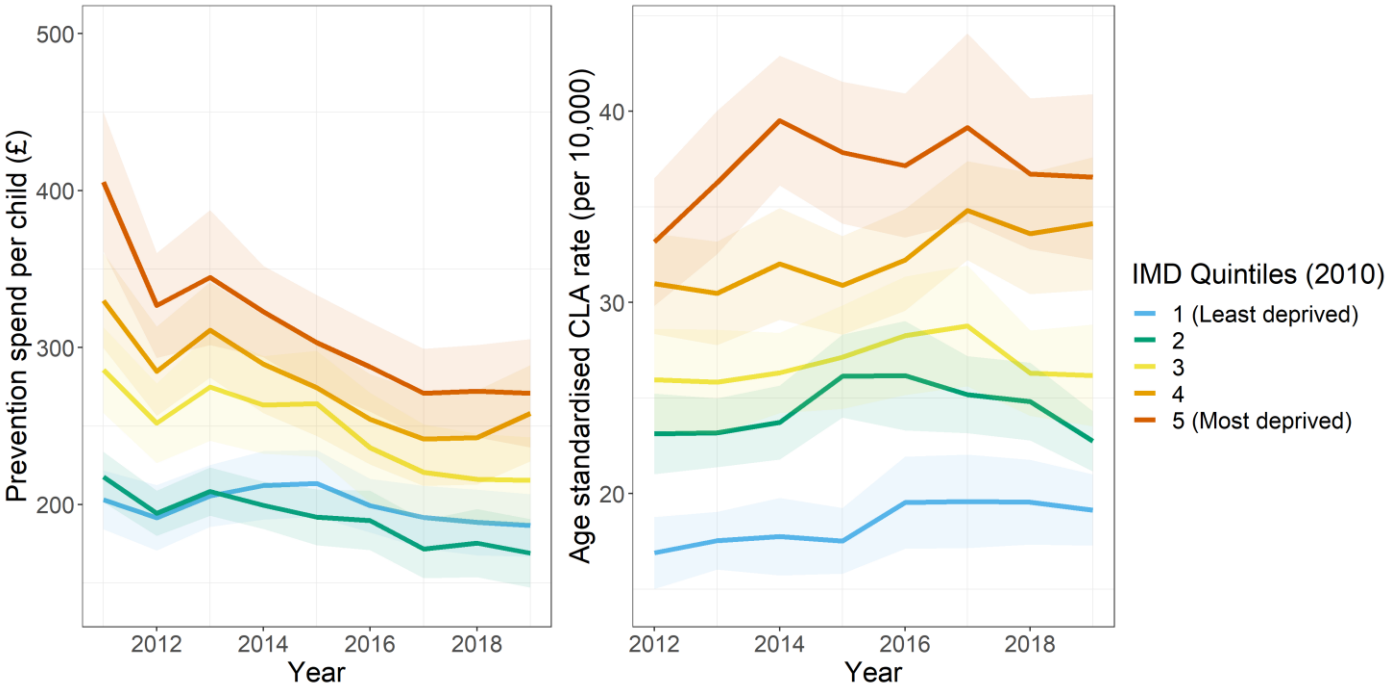
Figure 43. CIN model - comparing observed and predicted rates.



Study 2 Appendices

Appendix 9. Trends in inequalities in exposure and outcome variables.

Figure 44. Trends prevention spend per child (adjusted for inflation to 2018 prices, using the consumer price index deflator), and age-standardised CLA rates, 2011-19, by LA income deprivation.



Appendix 10. Prevention spend.

Summarising categories of prevention spend

Departmental advice for local authorities compiling their budget statement outlines each of the categories of prevention spend included in my analyses (*Youth Offending Teams*, n.d.). The categories are summarised as follows:

- 'Sure start children's centres and early years' may encompass a range of services for families with children under 5 years of age. These often include: parenting programmes; health promotion; prenatal and health visitor services; early learning and links to childcare; and links with employment, welfare, and other forms of parental support. (Goff et al., 2013)
- 'Services for young people' are intended for children between the ages of 13 and 19, and encompass: universal services, including youth work, recreational activities, and services that support participation in education or training; and targeted services, such as substance misuse services, services for young parents, and discretionary awards.

- 'Youth justice' spend relates to services for children above the age of criminal responsibility, who have been in trouble with the law, including: youth offending teams that work with young people to prevent reoffending (*Youth Offending Teams*, n.d.); community-based services; bail support schemes to ensure that children can remain a home where possible; and in rare cases, spend on secure accommodation for children who pose a risk to themselves or others, or who have been convicted of grave crimes.
- 'Family Support Services' cover: support for children with special educational needs and disabilities; universal family support, for examples services that facilitate partnership between parents and schools or peer-to-peer and relationship support; and intensive, targeted support for vulnerable families.
- 'Other Children and Family Services' relate to miscellaneous spend on children and their families, such as grants to voluntary organisations, and counselling and other generic support services.

Defining age-based exposures

For the exposure 'Prevention spend per child aged under 5', I took the sum of the following:

- 'Sure start children's centres and early years' / Population of children under 5 years of age
- 'Other children and family Services' / Population of children under 18
- 'Family support services' / Population of children under 18

For the exposure 'Prevention spend per child over 12', I took the sum of the following:

- 'Services for young people' / Population of children aged 13-19
- 'Youth justice' / Population of children aged 10-17
- 'Other children and family Services' / Population of children under 18
- 'Family support services' / Population of children under 18

Appendix 11. Model formula.

$$Y_{ijt} = \beta_0 + \beta_1(x_{1it-1} - \bar{x}_{1i}) + \beta_2(x_{2it-1} - \bar{x}_{2i}) + \beta_3(x_{3jt-1} - \bar{x}_{3j}) + U_i + \delta_t + (\varepsilon_{it} - \bar{\varepsilon}_i)$$

Let:

- Y_{ijt} denote the rate of children taken into care (per 100,000), dependent on LA i (in Region j) and year t

- x_{1it-1} denote exposure lagged prevention spend per child (£10s), dependent on LA i and year t-1
- x_{2it-1} denote the lagged employment rate (%), dependent on LA i and year t-1
- x_{3jt-1} denote the lagged child poverty rate (%), dependent on Region j and year t-1
- U_i denote LA random effects
- δ_t denote a series of dummy variables for each year t
- $\varepsilon_{it} \sim N\ (0, S_1)$ denote the random error for LA i in year t
- δ_t denote a series of dummy variables for each year t
- The overbar denote time averages

Appendix 12. Summary statistics.

Table 10. Summary statistics for outcome variables.

	Outcome variables							
Year	CLA rate 1-4 (per 10,000)				CLA rate 16-17 (per 10,000)			
	Mean	Sd.	Min	Max	Mean	Sd.	Min	Max
2011	237.4	126.3	13.6	709.5	221.7	179.9	0.0	1390.0
2012	237.5	115.8	9.7	697.3	228.6	172.6	0.0	1119.5
2013	239.8	132.4	41.4	841.5	264.1	183.0	19.5	888.0
2014	240.9	121.0	21.3	661.9	326.0	228.6	21.1	1324.5
2015	235.3	126.8	30.5	655.8	321.7	220.3	22.4	1815.8
2016	225.7	117.2	8.9	694.3	321.6	199.3	5.9	1382.1
2017	241.6	136.3	28.5	804.6	313.3	217.2	18.7	1477.8
2018	223.1	132.4	8.8	727.6	306.8	213.8	0.0	1174.6
2019	227.6	143.1	17.4	752.4	314.6	197.0	39.9	1129.6

Table 11. Summary statistics for exposure variables.

	Exposure variables							
Year	Prevention spend per child <5s (£10s)				Prevention spend per child >12s (£10s)			
	Mean	Sd.	Min	Max	Mean	Sd.	Min	Max
2011	43.2	20.1	3.1	132.9	36.9	14.6	14.7	111.2
2012	36.3	15.4	3.4	108.8	31.6	12.1	5.3	85.6
2013	40.4	18.4	7.9	130.6	33.1	13.8	10.1	93.0
2014	37.9	15.3	4.5	101.7	31.4	11.7	12.8	75.9
2015	36.2	16.2	6.5	112.6	30.2	11.1	11.2	76.7
2016	33.7	16.1	5.6	111.8	28.2	10.1	10.4	67.3
2017	32.0	15.8	4.6	108.3	26.2	11.1	6.9	98.2
2018	31.1	17.0	4.2	108.3	26.5	10.0	5.7	63.9
2019	-	-	-	-	-	-	-	-

Note. 2019 data not available at the time of writing.

Table 12. Summary statistics for control variables.

	Control variables							
Year	Employment rate (%)				Child poverty (%)			
	Mean	Sd.	Min	Max	Mean	Sd.	Min	Max
2011	69.6	5.3	53.4	81.5	30.4	5.4	22	38.0
2012	69.3	5.3	56.0	79.1	29.4	5.1	22	37.0
2013	70.3	5.1	57.6	80.9	28.6	5.2	22	37.0
2014	71.2	5.2	59.8	82.4	28.8	5.4	23	38.0
2015	72.3	5.0	60.0	82.9	29.2	4.4	25	37.0

2016	73.4	4.8	60.4	84.2	30.1	4.3	25	37.0
2017	73.8	5.0	60.9	82.3	31.1	4.2	25	37.0
2018	74.6	4.9	58.7	84.4	31.1	4.5	25	37.0
2019	74.9	4.6	61.7	84.3	31.6	5.2	25.0	39.0

Appendix 13. Full main linear regression model output

Table 13. Output of the main regression models estimating absolute change in the rate of children starting to be looked, per 100,000.

	Main models			
	Age 1-4		Age 16-17	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part				
β_0 Intercept	233.96	8.87	299.59	13.99
β_1 Age-relevant prevention spend per child in the corresponding age group	0.04	0.25	-1.87	0.60
β_2 Employment	-0.41	1.26	3.24	2.05
β_3 Child poverty	2.87	1.79	0.72	2.91
δ_t Year	*		*	
Year - Linear	-13.72	9.63	25.45	16.23
Year - Quadratic	-8.06	6.95	-59.52	11.31
Year - Cubic	4.69	6.29	31.66	10.25
Year - Quartic	-1.31	6.09	14.14	9.96
Year - Quintic	4.23	6.01	-14.91	9.76
Year - Sextic	12.08	6.01	15.26	9.79
Year - Septic	7.57	5.99	-9.08	9.76
Parameter	Estimate	Std. Dev.		
Random part: local authority level				
Intercept variance	(β_0 Intercept)	105.5	(β_0 Intercept)	166.1
Random part: observation level				
Residual variance		119.8		119.3
Pseudo-R^2 (fixed effects)	0		0.03	
Pseudo-R^2 (total)	0.68		0.67	
AIC	14105.98		15257.52	
Number of local authorities	150		150	
Number of observations	1200		1200	
*** Using the panelr package, orthogonal polynomial coding for trend analysis accounts for the effect of the year dummy variables δ_t. The contrast matrix can be estimated for the 8 time points using the contr.poly function.**				

Appendix 14. Robustness tests.

1. Negative control analyses

Table 14. Output of the negative control analysis for 1–4-year-old estimating the absolute change in the rate of children aged 1-4 starting to be looked after, per 100,000.

	Negative control analysis for 1–4-year-olds	
Parameter	Estimate	Std. Err.
Fixed part		
β_0 Intercept	233.96	8.87
β_1 Spend per 13-19 year old on young people's services	-0.02	0.05
β_2 Employment	-0.42	1.26
β_3 Child poverty	2.93	1.78
δ_t Year	*	
Year - Linear	-15.84	10.50
Year - Quadratic	-7.99	6.95
Year - Cubic	4.66	6.28
Year - Quartic	-0.91	6.07
Year - Quintic	3.95	6.00
Year - Sextic	12.34	6.01
Year - Septic	7.40	5.99
Parameter	Estimate	Std. Dev.
Random part: local authority level		
Intercept variance	(β_0 Intercept)	105.5
Random part: observation level		
Residual variance		73.19
Pseudo-R^2 (fixed effects)	0	
Pseudo-R^2 (total)	0.68	
AIC	14109.28	
Number of local authorities	150	
Number of observations	1200	
*** Using the panelr package, orthogonal polynomial coding for trend analysis accounts for the effect of the year dummy variables δ_t. The contrast matrix can be estimated for the 8 time points using the contr.poly function.**		

Table 15. Output of the negative control analysis for 16–17-year-olds estimating the absolute change in the rate of children aged 16-17 starting to be looked after, per 100,000.

	Negative control analysis for 16–17-year-olds	
Parameter	Estimate	Std. Err.
Fixed part		
β_0 Intercept	299.59	13.99
β_1 Spend per child under 5 on Sure Start children's centres and early years services	-0.05	0.04
β_2 Employment	3.09	2.06
β_3 Child poverty	0.26	2.92
δ_t Year	*	
Year - Linear	37.44	16.09
Year - Quadratic	-59.82	11.36
Year - Cubic	31.54	10.29
Year - Quartic	10.35	9.93
Year - Quintic	-14.18	9.85
Year - Sextic	13.97	9.84
Year - Septic	-8.52	9.80
Parameter	Estimate	Std. Dev.
Random part: local authority level		
Intercept variance	(β_0 Intercept)	166
Random part: observation level		
Residual variance		119.8
Pseudo-R^2 (fixed effects)	0.03	
Pseudo-R^2 (total)	0.67	
AIC	15271.26	
Number of local authorities	150	
Number of observations	1200	

*** Using the panelr package, orthogonal polynomial coding for trend analysis accounts for the effect of the year dummy variables δ_t. The contrast matrix can be estimated for the 8 time points using the contr.poly function.**

2. Regional-level models

Table 16. Output of the regional level models estimating the absolute change in the rate of children starting to be looked after, per 100,000.

	Regional models			
	Age 1-4		Age 16-17	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part				
β_0 Intercept	233.48	28.88	265.77	31.08
β_1 Age-relevant prevention spend	-2.10	1.11	-10.79	2.87
β_2 Employment	1.22	5.61	8.74	7.92
β_3 Child poverty	5.05	2.18	2.48	2.95
δ_t Year	*		*	
Year - Linear	-40.28	31.44	-89.00	43.32
Year - Quadratic	-13.77	9.47	-40.39	12.81
Year - Cubic	2.60	8.73	32.53	12.14
Year - Quartic	5.62	8.14	38.11	13.18
Year - Quintic	-5.89	7.85	-24.93	10.18
Year - Sextic	13.49	7.49	17.58	10.56
Year - Septic	4.86	7.24	-7.09	10.01
Parameter	Estimate	Std. Dev.		
Random part: Regional level				
Intercept variance	(β_0 Intercept)	86.05	(β_0 Intercept)	92.25
Random part: observation level				
Residual variance		21.52		29.61
Pseudo-R^2 (fixed effects)	0.01		0.08	
Pseudo-R^2 (total)	0.94		0.91	
AIC	645.38		679.11	
Number of Regions	9		9	
Number of observations	72		72	
*** Using the panelr package, orthogonal polynomial coding for trend analysis accounts for the effect of the year dummy variables δ_t. The contrast matrix can be estimated for the 8 time points using the contr.poly function.**				

3. Total prevention spend per child as the exposure

Table 17. Output of models using the broadest possible category of prevention spend, estimating the absolute change in the rate of children starting to be looked, per 100,000.

	Models with total prevention spend as the exposure			
	Age 1-4		Age 16-17	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part				
β_0 **Intercept**	233.96	8.87	299.59	13.99
β_1 **Total prevention spend per child**	0.00	0.05	-0.28	0.08
β_2 **Employment**	-0.41	1.26	3.06	2.05
β_3 **Child poverty**	2.89	1.79	1.01	2.92
δ_t **Year**	*		*	
Year - Linear	-14.04	9.93	24.33	16.18
Year - Quadratic	-8.11	6.94	-61.20	11.31
Year - Cubic	4.67	6.28	31.61	10.24
Year - Quartic	-1.20	6.14	15.48	10.00
Year - Quintic	4.13	6.01	-16.35	9.79
Year - Sextic	12.15	6.02	16.12	9.80
Year - Septic	7.53	5.99	-9.68	9.75
Parameter	Estimate	Std. Dev.		
Random part: local authority level				
Intercept variance	(β_0 Intercept)	105.5	(β_0 Intercept)	166.1
Random part: observation level				
Residual variance		73.2		119.2
Pseudo-R² (fixed effects)	0		0.03	
Pseudo-R² (total)	0.68		0.67	
AIC	14109.16		15259.76	
Number of local authorities	150		150	
Number of observations	1200		1200	
*** Using the panelr package, orthogonal polynomial coding for trend analysis accounts for the effect of the year dummy variables δ_t. The contrast matrix can be estimated for the 8 time points using the contr.poly function.**				

4. Poisson models

Note: for Poisson model output, coefficients for prevention spend reflect a £100 per child increase in age-relevant prevention spend per child.

Table 18. Output of the Poisson models estimating the relative change in the rate of children starting to be looked after, logged.

	Poisson models			
	Age 1-4		Age 16-17	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part				
β_0 **Intercept**	-6.16	0.04	-5.64	0.05
β_1 **Age-relevant prevention spend**	0.00	0.00	-0.04	0.01
β_2 **Employment**	-0.00	0.00	0.01	0.00
β_3 **Child poverty**	0.01	0.00	0.02	0.00
δ_t **Year**	*		*	
Year - Linear	-0.07	0.02	0.52	0.03
Year - Quadratic	-0.04	0.02	-0.15	0.02
Year - Cubic	-0.00	0.01	0.04	0.02
Year - Quartic	-0.01	0.01	0.09	0.01
Year - Quintic	-0.01	0.01	0.02	0.01
Year - Sextic	0.05	0.01	0.02	0.01
Year - Septic	0.02	0.01	-0.07	0.01
Parameter	Estimate	Std. Dev.	Estimate	Std. Dev.
Random part: LA level				
Intercept variance	(β_0 Intercept)	0.45	(β_0 Intercept)	0.58
Pseudo-R² (fixed effects)	0		0.01	
Pseudo-R² (total)	0.03		0.06	
AIC	9867.38		10360.62	
Number of local authorities	150		150	
Number of observations	1200		1200	
*** Using the panelr package, orthogonal polynomial coding for trend analysis accounts for the effect of the year dummy variables δ_t. The contrast matrix can be estimated for the 8 time points using the contr.poly function.**				

5. Conditioning on the relevant child population (child population aged 1-4 and 16-17, respectively)

Table 19. Output of the models estimating the absolute change in the rate of children starting to be looked after, additionally controlling for the relevant population and (1/population).

	Models additionally conditioning on the child population			
	Age 1-4		Age 16-17	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part				
β_0 **Intercept**	233.96	8.87	299.59	13.99
β_1 **Age-relevant prevention spend**	0.01	0.25	-2.00	0.61
β_2 **Employment**	0.06	1.26	3.18	2.05
β_3 **Child poverty**	2.89	1.78	0.08	2.95
β_4 **Child population**	-0.01	0.01	-0.00	0.01
β_5 **(1/Child population)**	1584789.95	926437.08	539880.36	405956.43
δ_t **Year**	*		*	
Year - Linear	-10.88	9.66	17.23	17.98
Year - Quadratic	-20.08	7.84	-60.41	11.36
Year - Cubic	5.47	6.26	30.35	10.28
Year - Quartic	0.11	6.07	14.82	9.98
Year - Quintic	4.18	5.99	-15.51	9.78
Year - Sextic	12.15	5.98	15.90	9.80
Year - Septic	7.84	5.96	-9.16	9.76
Parameter	Estimate	Std. Dev.	Estimate	Std. Dev.
Random part: LA level				
Intercept variance	(β_0 Intercept)	105.6	(β_0 Intercept)	166.1
Pseudo-R² (fixed effects)	0.01		0.03	
Pseudo-R² (total)	0.68		0.67	
AIC	14077.55		15238.8	
Number of local authorities	150		150	
Number of observations	1200		1200	
*** Using the panelr package, orthogonal polynomial coding for trend analysis accounts for the effect of the year dummy variables δ_t. The contrast matrix can be estimated for the 8 time points using the contr.poly function.**				

6. Excluding outlier local authorities

1–4-year-olds

I removed local authorities whose change in prevention spend per child under 5 and change in rate of 1–4-year-olds starting to be looked after between two timepoints, 2011 and 2018, exceeded three times the interquartile range.

Prevention spend outliers: Southwark; The Medway Towns

CLA rate outliers: North-East Lincolnshire; Sunderland

Table 20. Output of the model for 1–4-year-olds after excluding possible outlier local authorities, estimating the absolute change in the rate of children aged 1-4 starting to be looked after, per 100,000.

	Model for 1–4-year-olds, excluding outliers	
Parameter	Estimate	Std. Err.
Fixed part		
β_0 Intercept	230.18	8.68
β_1 Prevention spend per child under 5	-0.04	0.27
β_2 Employment	-0.10	1.25
β_3 Child poverty	2.72	1.77
δ_t Year	*	
Year - Linear	-20.37	9.56
Year - Quadratic	-6.28	6.83
Year - Cubic	3.62	6.20
Year - Quartic	-1.59	6.00
Year - Quintic	4.39	5.93
Year - Sextic	12.81	5.91
Year - Septic	7.04	5.89
Parameter	Estimate	Std. Dev.
Random part: local authority level		
Intercept variance	(β_0 Intercept)	101.9
Random part: observation level		
Residual variance		71.06
Pseudo-R^2 (fixed effects)	0	
Pseudo-R^2 (total)	0.67	
AIC	13658.41	
Number of local authorities	146	
Number of observations	1168	
*** Using the panelr package, orthogonal polynomial coding for trend analysis accounts for the effect of the year dummy variables δ_t. The contrast matrix can be estimated for the 8 time points using the contr.poly function.**		

16-17-year-olds

I removed local authorities whose change in prevention spend per child over 12 and change in rate of 16-17-year-olds starting to be looked after between two timepoints, 2011 and 2018, exceeded three times the interquartile range.

Prevention spend outliers: Barnsley; St Helens; Tower Hamlets

CLA rate outliers: Camden; Hammersmith and Fulham

Table 21. Output of the model for 16–17-year-olds after excluding possible outlier local authorities, estimating the absolute change in the rate of children aged 16-17 starting to be looked after, per 100,000.

	Model for 16–17-year-olds, excluding outliers	
Parameter	Estimate	Std. Err.
Fixed part		
β_0 Intercept	293.85	13.71
β_1 Prevention spend per child over 12	-2.27	0.69
β_2 Employment	2.42	2.03
β_3 Child poverty	-0.18	2.82
δ_t Year	*	
Year - Linear	30.86	16.10
Year - Quadratic	-57.60	11.06
Year - Cubic	28.76	9.98
Year - Quartic	14.74	9.77
Year - Quintic	-14.84	9.51
Year - Sextic	14.13	9.54
Year - Septic	-5.80	9.50
Parameter	Estimate	Std. Dev.
Random part: local authority level		
Intercept variance	(β_0 Intercept)	160
Random part: observation level		
Residual variance		114.3
Pseudo-R^2 (fixed effects)	0.03	
Pseudo-R^2 (total)	0.67	
AIC	14648.97	
Number of local authorities	145	
Number of observations	1160	

*** Using the panelr package, orthogonal polynomial coding for trend analysis accounts for the effect of the year dummy variables δ_t. The contrast matrix can be estimated for the 8 time points using the contr.poly function.**

7. Excluding London local authorities

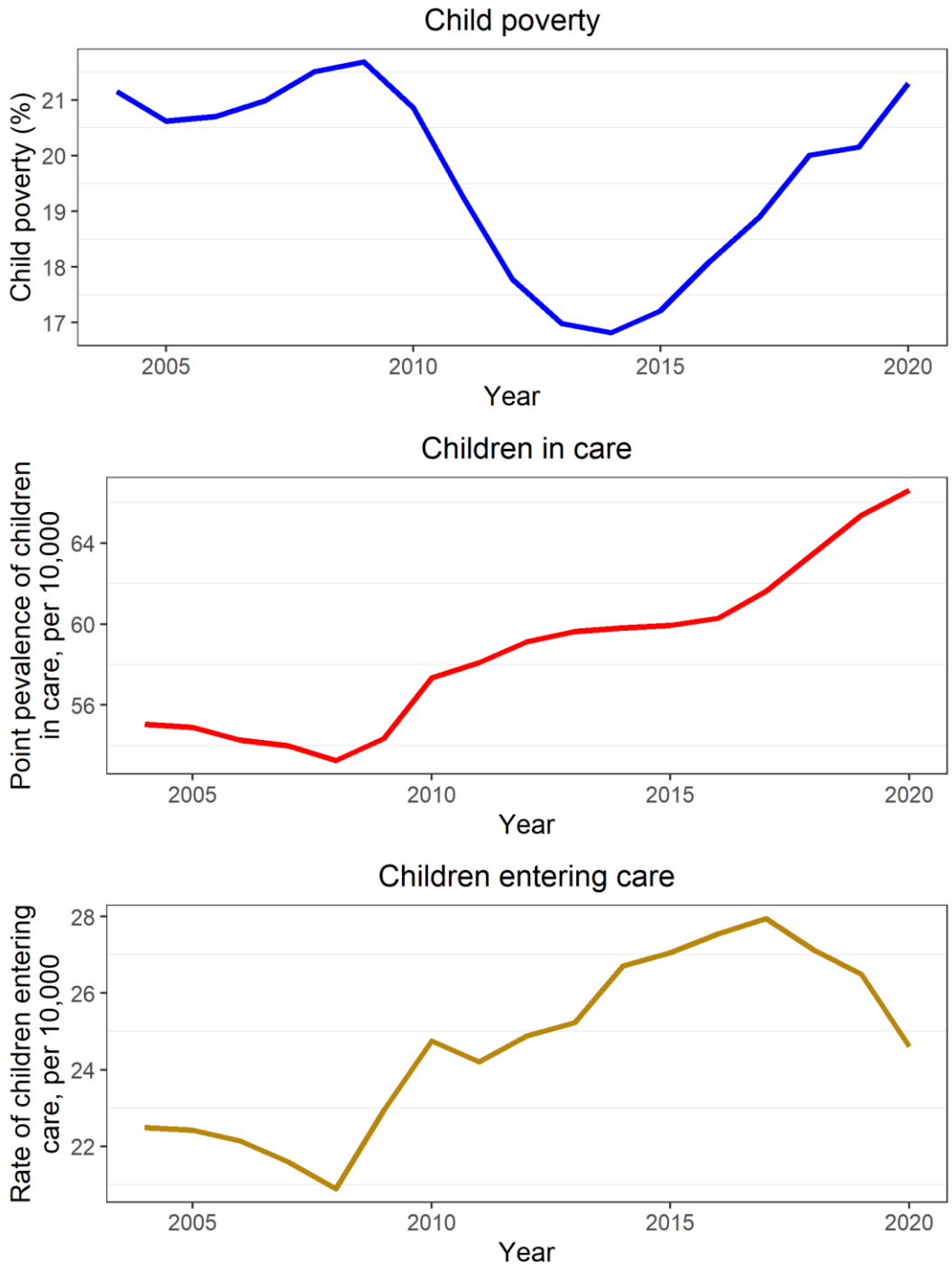
Table 22. Output of models after excluding London local authorities, estimating the absolute change in the rate of children starting to be looked, per 100,000.

	Models excluding London local authorities			
	Age 1-4		**Age 16-17**	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part				
β_0 **Intercept**	260.25	9.74	242.01	9.45
β_1 **Total prevention spend per child**	-0.10	0.31	-2.24	0.66
β_2 **Employment**	0.84	1.69	-0.81	2.17
β_3 **Child poverty**	1.55	2.16	-1.29	2.76
δ_t **Year**	*		*	
Year - Linear	-9.88	11.93	40.74	15.57
Year - Quadratic	-5.88	8.98	-37.12	11.50
Year - Cubic	5.11	7.67	25.22	9.84
Year - Quartic	-1.33	7.47	18.85	9.64
Year - Quintic	3.29	7.26	-7.55	9.27
Year - Sextic	11.80	7.25	7.48	9.30
Year - Septic	9.57	7.23	-4.44	9.26
Parameter	Estimate	Std. Dev.		
Random part: local authority level				
Intercept variance	(β_0 Intercept)	102.1	(β_0 Intercept)	166.1
Random part: observation level				
Residual variance		78.41		119.2
Pseudo-R² (fixed effects)	0		0.04	
Pseudo-R² (total)	0.63		0.5	
AIC	11192.74		11590.67	
Number of local authorities	118		118	
Number of observations	944		944	
*** Using the panelr package, orthogonal polynomial coding for trend analysis accounts for the effect of the year dummy variables δ_t. The contrast matrix can be estimated for the 8 time points using the contr.poly function.**				

Study 3 Appendices

Appendix 15. National trends.

Figure 45. National trends in child poverty rates, rates of children in care at 31st March, per 10,000, and rates of children entering care, per 10,000, 2004-2020, in England.



Note: Relative child poverty before housing costs data are taken from Households Below Average Income statistics, and represent three-year right-aligned rolling averages.

Appendix 16. Suppressed data.

In publicly available data, for the purposes of confidentiality, cell contents were supressed if the count of children was between 1 and 5 inclusive. Tables 1 and 2 show the count of local authorities for which data were supressed, by year and age group. There were fewer instances of suppression among children aged over 15 than among children in the relevant age groups, combined. And complete data on the total count of children entering care (all ages) were available for the period 2015-20. Therefore, to derive the count of children under 16 entering care, I randomly imputed an integer between 1 and 5 for children over 15 entering care (54 imputations), then subtracted counts for children over 15 from the total number of children entering care.

Complete data were available for children under 16 being made subject to a child protection plan and beginning an 'episode of need'. No imputation was necessary.

Table 23. Count of local authorities for which data are suppressed, by year and age groups of interest.

	Count of LAs for which data are suppressed				
	Age group				
Year	<1	1-4	5-9	10-15	Total
2015	9	4	7	1	21
2016	4	4	5	0	13
2017	5	6	3	2	16
2018	4	8	4	2	18
2019	5	7	7	2	21
2020	7	9	15	2	33
Total	34	38	41	9	122

Table 24. Count of local authorities for which data are suppressed, by year, for young people over the age of 15.

	Count of LAs for which data are suppressed
Year	Age group >15
2015	15
2016	5
2017	6
2018	10
2019	6
2020	12
Total	54

Appendix 17. Main model formula.

Let:

- Y_{it} denote the CLA / CPP / CIN rate, dependent on LA i and year t
- x_{1it} denote the child poverty rate, dependent on LA i and year t
- x_{2it} denote the employment rate, dependent on LA i and year t
- U_i denote LA random effects
- δ_t denote a series of dummy variables for each year t
- $\varepsilon_{it} \sim N\ (0, S_1)$ denote the random error for LA i in year t
- The overbar denote time-averages
- The superscript ^{w} or ^{b} denote decomposition into within- or between- LA effects of covariates

$$Y_{it} = \beta_0 + \beta_1^w(x_{1it} - \bar{x}_{1i}) + \beta_1^b(\bar{x}_{1i}) + \beta_2^w\ (x_{2it} - \bar{x}_{2i}) + \beta_2^b(\bar{x}_{2i}) + U_i + \delta_t + \varepsilon_{it}$$

Appendix 18. Cost estimates.

Corporate parenting costs associated with rising child poverty from 2015

Based on my estimates of the annual marginal difference between observed trends in CLA rates, and trends that might have been expected had child poverty rates from 2015 remained stable, employment trends unaltered, I estimated the corporate parenting costs associated with the difference. I used 2015-20 data on mean weekly expenditure per child in care, compiled by the Local Government Association (Local Government Association, 2021), and data for the same period on the mean duration of last period of care for children leaving care, from the Department for Education (Author's analysis of DfE, 2022). For each year, I multiplied the difference estimates by the mean annual cost, and mean duration of placement. I summed costs over the time period to obtain the overall estimate.

Corporate parenting costs associated with the revocation of the £20-per-week Universal Credit uplift and minimum income floor

Using Legatum Institute estimates of the number of children protected from moving into poverty by the £20 weekly Universal Credit uplift and minimum income floor (Legatum Institute, 2021), and Department for Work and Pensions data on the number of children in poverty in the UK (Department for Work and Pensions, 2021b), I derived the percentage rise in child poverty represented by a revocation of these protective measures. I then multiplied this percentage rise by my model estimates to contextualise the impact of the revocation on children and families' involvement with children's social care.

Assuming that the relationship between child poverty and statutory child welfare interventions across the UK is comparable to that in England, and assuming comparable Social Metrics Commission and Households Below Average Income child poverty data, I estimate that the cut is likely to lead an additional 1,508 children entering care [95% CI 638–2,407]; 5,597 children becoming subject to a child protection plan [95% CI 3,596– 7,627]; and 15,138 additional children beginning an episode of need, or receiving some form of care and support from the local authority [95% CI 3,944–26,332], each year.

Accordingly, using data on mean weekly expenditure per child in care (Local Government Association, 2021b), and mean duration of last period of care for children leaving care (Author's analysis of DfE, 2022), as above, I used 2020 data to estimate the corporate parenting costs associated with the additional children likely to enter care as a result of the revocation. This amounts to an additional £225.6 million [£95.4 million – £360.0 million], each year.

Appendix 19. Robustness tests.

Alternative data sources and measures

In robustness tests, as alternative measures of the exposure, I used: 1) absolute child poverty before housing costs, and 2) relative child poverty after housing costs. Absolute child poverty is measured against a static threshold that rises only with inflation, regardless of how the prosperity of a whole society may shift (Wickham et al., 2016). In official data this threshold is set to 2011, with absolute child poverty defined as the proportion of children living in households with less than 60% of the 2011 median income, adjusted for inflation (Department for Work and Pensions, 2022). My measure of relative child poverty after housing costs is derived from before housing costs data by the Centre for Research in Social Policy. It takes into account the cost of rent, water, mortgage interest payments, buildings insurance payments, ground rent and service charges (End Child Poverty, 2021).

Alternative modelling approaches

In my main analysis I used linear models: visually, I assessed that the relationship seemed to be more linear than log-linear. However, Poisson models may also be appropriate to the count data. I therefore also used an alternative modelling approach, fitting Poisson within-between regression models to data on the number of children experiencing the different interventions, with the log of the relevant child population as an offset in the analysis, instead of modelling intervention rates directly. In the Poisson models, I accounted for overdispersion by including observation-level random effects (Harrison, 2014).

Controlling for child population and (1/child population)

In cases where mathematical coupling may arise due to dividing through by the child population in area-level data, additionally conditioning on the child population by controlling for the population and (1/population) may reduce bias (Tennant, 2023a).

Excluding observations with extreme values

Using the Bonferroni outlier test (Fox & Weinberg, 2019), I identified observations with extreme values that may be unduly influential in the models. I reran the main analyses, excluding each of these observations in turn.

Controlling for local authority prevention spend

Local authority spend on preventative children's services is intended to directly affect the outcome of interest by reducing the need for statutory interventions (D. L. Bennett et al., 2021). However, the relationship of prevention spend to exposure may be more complex. Prevention spend may act as a mediator of the effect of child poverty on intervention rates: decisions about spend may be influenced by level of anticipated need in an area. This was my assumption in the main models; I deliberately do not control for likely causal mediators of the relationship of interest. However, prevention spend may also act as a confounder. Prevention strategies that target the social determinants of need, for example supporting families with benefits maximisation or finding employment, may alleviate child poverty, directly affecting both exposure and outcome.

I therefore conducted an additional robustness test, controlling for prevention spend per child in the previous financial year. Local authority finance data were taken from Section 251 spending returns (Place-based Longitudinal Data Resource, 2019). In the measure of prevention spend per child under 18, I summed spend categories relating to early help and family support services (sure start and early years; family support services; services for young people; youth justice; other children and family services), and excluded categories relating to child protection social work or children already in care. The denominator was the population of children under 18, taken from Office for National Statistics (ONS) mid-year population estimates.

I hypothesised that prevention spend would likely have a lagged effect; this modelling decision ensures that prevention spend precedes the exposure so cannot be considered a direct mediator. Nevertheless, the correlation of observations across years within areas means that disentangling the potential pathways remains complex.

Discussion of robustness test results

Summary and full model output for robustness tests are shown in appendices 23-24. Robustness tests using alternative measures of the exposure show that, for the main outcome and more acute secondary outcome, findings are robust to the specification of poverty type (appendix 23 table 29). For Children in Need, however, the poverty measure accounting for housing costs revises the effect estimate downwards, with wide confidence intervals spanning the null.

The Poisson regression models validate the main finding of an association between child poverty rates and intervention rates within local authorities, across the spectrum of statutory interventions (appendix 23 table 30). They additionally highlight the greater relative increase in children being placed on a child protection plan compared to the main outcome and less acute secondary outcome, for a given increase in the child poverty rate, holding employment rates constant.

Repeating our main analysis, additionally controlling for child population and (1/child population), upholds our core findings across all outcomes, with only slight attenuation in our main estimate.

Excluding from the analyses each observation with extreme values, identified from the models using the Bonferroni outlier test, suggests that no single observation is unduly influential (appendix 23 tables 31-33). Overall, removal leads to slightly attenuated point estimates for the CLA and CPP models. This is to be expected given that the observations with extreme values tend to reflect more deprived local authorities experiencing greater increases in child poverty and intervention rates.

Across all outcomes, additionally controlling for local authority prevention spend per child in the previous year does not meaningfully alter the estimates (appendix 23 table 34). In this robustness test, I considered prevention spend a confounder of the relationship of interest. However, if preventative services were in fact mediating the effect of child poverty by anticipating and addressing need, we might expect point estimates to be revised upwards when controlling for prevention spend. That the estimates are unaffected might indicate that, in the absence of national efforts to shift the distribution of children's exposure to poverty, local efforts to mitigate the consequences may simply be insufficient. Given the restricted time period for the analysis, the model may also be underpowered to detect the impact of preventative spend. Further research is needed to disentangle the respective roles of poverty and preventative services in determining children's outcomes.

Appendix 20. Summary statistics.

Table 25. Summary statistics for main outcome variable.

	Main outcome variable			
Year	CLA rate (per 100,000 children < 16)			
	Mean	Sd.	Min	Max
2015	280.05	110.91	98.28	678.29
2016	277.42	110.63	73.85	823.03
2017	290.52	132.43	58.53	996.18
2018	273.36	118.79	75.91	778.21
2019	262.07	125.49	87.95	693.29
2020	260.00	141.41	101.93	931.88

Table 26. Summary statistics for secondary outcome variables.

	Secondary outcome variables							
Year	CPP rate (per 100,000 children < 16)				CIN rate (per 100,000 children < 16)			
	Mean	Sd.	Min	Max	Mean	Sd.	Min	Max
2015	605.70	220.05	159.34	1687.83	3374.99	1395.97	1269.09	7884.70
2016	623.70	244.42	173.61	1921.71	3295.18	1189.50	1120.76	7816.81
2017	640.42	250.79	216.42	2232.55	3317.60	1231.04	1241.81	9489.46
2018	651.59	254.26	223.29	1634.24	3299.84	1108.04	1221.51	6735.77
2019	617.13	241.93	160.96	1775.60	3262.75	1072.43	1114.47	6876.37
2020	622.71	271.87	167.88	1601.16	3234.23	1235.58	1041.92	8145.64

Table 27. Summary statistics for exposure variable.

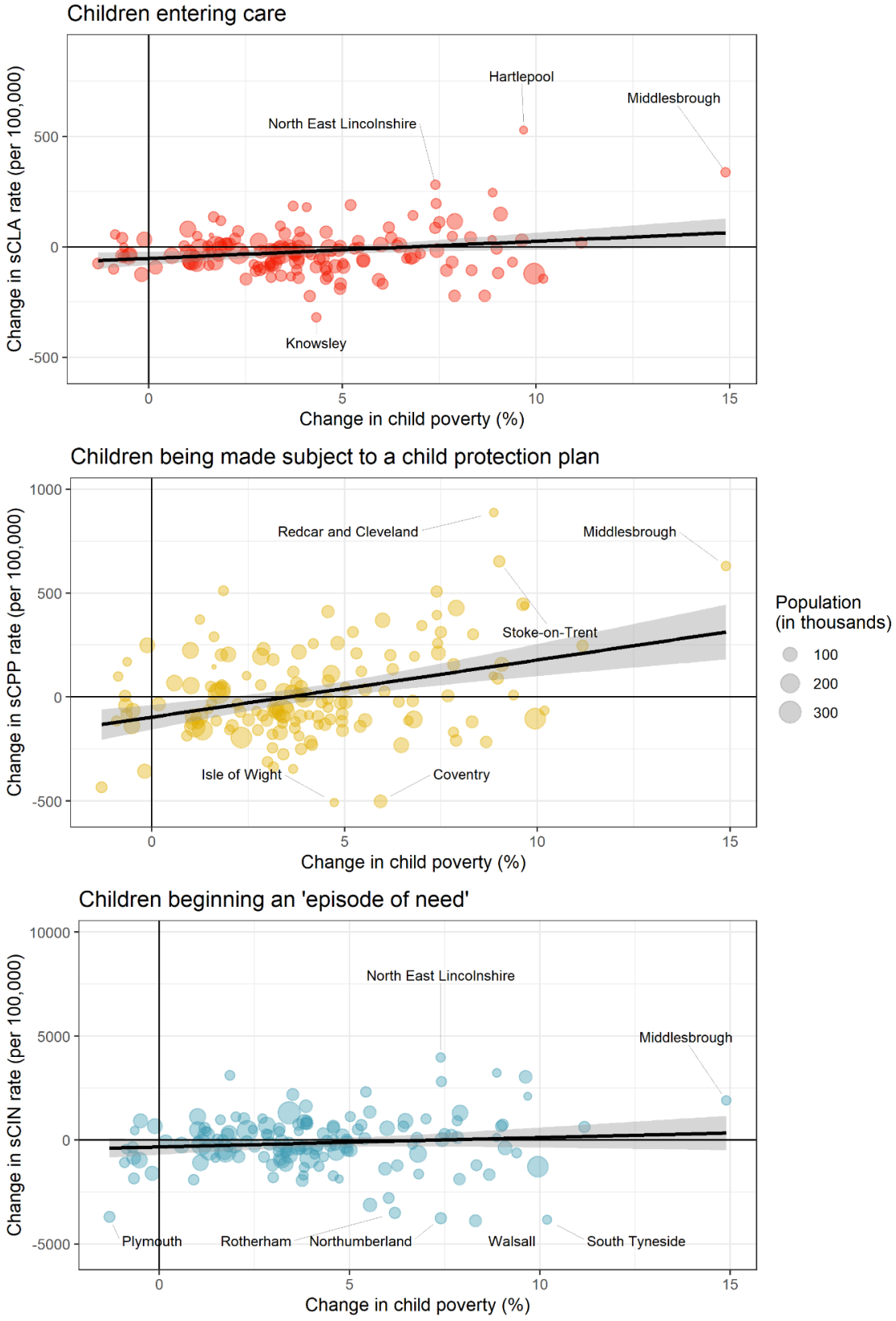
	Main exposure variable			
Year	Relative child poverty, before housing costs (%)			
	Mean	Sd.	Min	Max
2015	15.62	5.16	5.35	29.73
2016	16.41	5.75	5.21	32.41
2017	17.33	6.28	5.35	34.63
2018	18.48	6.55	6.26	37.42
2019	18.73	6.74	6.17	38.34
2020	19.75	7.24	6.88	38.63

Table 28. Summary statistics for control variable.

	Control variable			
Year	Employment rate (%)			
	Mean	Sd.	Min	Max
2015	72.26	5.03	60.00	82.90
2016	73.31	4.87	60.40	84.20
2017	73.74	4.99	60.90	82.30
2018	74.52	4.89	58.70	84.40
2019	74.85	4.61	61.70	84.30
2020	75.56	4.58	64.50	84.20

Appendix 21. Local authorities exhibiting large changes in exposure and outcomes.

Figure 46. Associations between the change in the child poverty rate between 2015 and 2020, and intervention rates for each of the outcomes between 2015 and 2020, in each local authority, with 95% confidence intervals. Extreme values are labelled with the name of the corresponding local authority.



Appendix 22. Full main linear regression model output.

Table 29. Full main linear regression model output.

	CLA		CPP		CIN	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part						
β_0 Intercept	335.81	230.17	429.19	458.52	8957.33	2088.45
β_1^w Relative poverty	5.21	1.55	19.35	3.57	52.17	19.69
β_1^b Relative poverty	8.85	1.99	18.01	3.97	38.84	18.09
β_2^w Employment	0.48	1.17	0.73	2.68	-20.86	14.79
β_2^b Employment	-2.71	2.72	-1.36	5.41	-83.71	24.63
δ_{2015}Year	-	-	-	-	-	-
δ_{2016}Year	-7.28	6.67	1.84	15.35	-99.38	84.68
δ_{2017}Year	0.85	7.18	0.58	16.51	-115.58	91.08
δ_{2018}Year	-22.72	8.26	-11.21	19.00	-177.54	104.79
δ_{2019}Year	-35.45	8.60	-50.66	19.78	-220.44	109.11
δ_{2020}Year	-43.21	9.87	-65.43	22.71	-287.74	125.26
Parameter	Estimate	Std. Dev.	Estimate	Std. Dev.	Estimate	Std. Dev.
Random part: LA level						
Intercept variance	7913	88.95	30720	175.3	611019	781.7
Random part: observation level						
Residual variance	3051	55.24	16148	127.1	491319	700.9
Deviance	9992.2		11419.5		14375.4	
Log likelihood	-4996.1		-5709.5		-7187.7	
Number of local authorities	147		147		147	
Number of observations	882		882		882	
Note: the outcome is the intervention rate, per 100,000 children						

Appendix 23. Summary robustness test results.

Table 30. Linear regression model output, using alternative measures of the exposure.

	Within-LA effects: Annual change in the rate per 100,000 for a 1 percentage point increase in child poverty, controlling for employment rates [95% CI]		
Poverty measure	Children starting to be looked after	Children made subject to a child protection plan	Children beginning an episode of need
Relative poverty, before housing costs (main model)	5.2 [2.2, 8.3]	19.3 [12.4, 26.3]	52.2 [13.6, 90.8]
Absolute poverty, before housing costs	5.6 [1.9, 9.4]	22.9 [14.3, 31.5]	60.1 [12.6, 107.6]
Relative poverty, after housing costs	5.9 [3.3, 8.5]	16.3 [10.3, 22.4]	18.6 [-15.0, 52.3]

Note. For full model output, see appendices 22, 24 and 25.

Table 31. Poisson regression model output, using the main exposure, relative child poverty before housing costs.

	Children starting to be looked after	**Children made subject to a child protection plan**	**Children beginning an episode of need**
Within-LA effects: Percentage change in the rate for a 1 percentage point increase in child poverty, controlling for employment rates [95% CI]	1.3% [0.3%, 2.2%]	2.4% [1.3%, 3.5%]	1.6% [0.5%, 2.6%]
Between-LA effects: Percentage change in the rate for a 1 percentage point increase in average child poverty rates between LAs, controlling for employment rates [95% CI]	3.8% [2.5%, 5.1%]	3.4% [2.2%, 4.6%]	1.3% [0.3%, 2.4%]

Note. For full model output, see appendix 26.

Table 32. Linear regression model output, additionally controlling for child population and (1/child population).

	Children starting to be looked after	**Children made subject to a child protection plan**	**Children beginning an episode of need**
Within-LA effects: Annual change in the rate for a 1 percentage point increase in child poverty, controlling for employment rates and child population [95% CI]	4.61 [1.52, 7.71]	18.57 [11.44, 25.70]	49.97 [10.63, 89.31]
Between-LA effects: Mean change in the rate for a 1 percentage point increase in average child poverty rates between LAs, controlling for employment rates and child poverty [95% CI]	10.27 [6.55, 13.98]	20.45 [12.93, 27.97]	45.08 [9.89, 80.28]

Note. For full model output, see appendix 27.

Table 33. CLA linear regression model output, excluding observations with extreme values, as identified using the Bonferroni outlier test.

Mean-shift outliers, identified using the Bonferroni outlier test		**CLA model estimates excluding outlier observation**
Local authority	Year	Within-LA effects: Annual change in the CLA rate per 100,000 for a 1 percentage point increase in child poverty, controlling for employment rates [95% CI]
Hartlepool	2015	4.5 [1.6, 7.5]
Middlesbrough	2020	4.0 [1.0, 7.1]
Hartlepool	2020	4.5 [1.5, 7.5]
North East Lincolnshire	2020	4.6 [1.6, 7.6]
Kingston upon Thames	2018	5.2 [2.2, 8.3]

Table 34. CPP linear regression model output, excluding observations with extreme values, as identified using the Bonferroni test.

Mean-shift outliers, identified using the Bonferroni outlier test		**CPP model estimates excluding outlier observation**
Local authority	Year	Within-LA effects: Annual change in the CPP rate per 100,000 for a 1 percentage point increase in child poverty, controlling for employment rates [95% CI]
Blackpool	2017	19.0 [12.1, 26.0]
Redcar and Cleveland	2020	18.2 [11.3, 25.1]

Table 35. CIN linear regression model output, excluding observations with extreme values, as identified using the Bonferroni test.

Mean-shift outliers, identified using the Bonferroni outlier test		**CIN model estimates excluding outlier observation**
Local authority	Year	Within-LA effects: Annual change in the CIN rate per 100,000 for a 1 percentage point increase in child poverty, controlling for employment rates [95% CI]
City of Nottingham	2017	39.7 [1.6, 77.9]
South Tyneside	2015	60.0 [21.7, 98.2]
NE Lincolnshire	2020	45.0 [6.8, 83.3]
Northumberland	2015	55.2 [17.0, 93.5]

Table 36. Summary of regression coefficients for the within-area change in the primary and secondary outcomes associated with a change in the child poverty rate, controlling for employment rates and prevention spend per child. For full model see table 18.

	Annual change in the rate per 100,000 for a 1 percentage point increase in child poverty, controlling for employment rates and prevention spend per child [95% CI]
Children starting to be looked after	5.3 [2.2, 8.3]
Children made subject to a child protection plan	19.6 [12.6, 26.6]
Children beginning an episode of need	51.9 [13.2, 90.5]

Note. For full model output, see appendix 28

Appendix 24. Full linear regression model output, using absolute poverty before housing costs as the exposure.

Table 37. Full linear regression model output, using absolute poverty before housing costs as the exposure.

	CLA		CPP		CIN	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part						
β_0 Intercept	348.37	229.00	384.52	453.45	8670.51	2065.15
β_1^w Absolute poverty	5.61	1.91	22.87	4.40	60.06	24.23
β_1^b Absolute poverty	9.83	2.26	20.60	4.48	46.38	20.39
β_2^w Employment	0.57	1.17	1.07	2.69	-19.98	14.81
β_2^b Employment	-3.01	2.70	-1.39	5.35	-81.94	24.37
δ_{2015}Year	-	-	-	-	-	-
δ_{2016}Year	-1.01	6.60	25.93	15.20	35.05	83.78
δ_{2017}Year	13.60	6.81	49.30	15.66	14.69	86.31
δ_{2018}Year	-5.60	7.01	53.15	16.13	-4.63	88.88
δ_{2019}Year	-18.55	7.13	12.32	16.41	-50.79	90.42
δ_{2020}Year	-23.83	7.55	5.69	17.37	-95.32	95.73
Parameter						
Random part: LA level						
Intercept variance	7949	89.16	30592	174.9	608359	780.0
Random part: observation level						
Residual variance	3062	55.34	16198	127.3	491902	701.4
Deviance	9995.5		11421.2		14375.7	
Log likelihood	-4997.7		-5710.6		-7187.9	
Number of local authorities	147		147		147	
Number of observations	882		882		882	
Note: the outcome is the intervention rate, per 100,000 children						

Appendix 25. Full linear regression model output, using relative poverty after housing costs as the exposure.

Table 38. Full linear regression model output, using relative poverty after housing costs as the exposure.

	CLA		CPP		CIN	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part						
β_0 Intercept	1247.63	205.27	2435.98	409.09	9935.57	1752.71
β_1^w Relative poverty	5.91	1.34	16.33	3.10	18.64	17.15
β_1^b Relative poverty	-0.52	1.57	-2.67	3.13	27.15	13.41
β_2^w Employment	0.70	1.16	1.35	2.69	-20.14	14.87
β_2^b Employment	-12.72	2.31	-23.23	4.60	-99.94	19.70
δ_{2015}Year	-	-	-	-	-	-
δ_{2016}Year	-7.00	6.58	6.55	15.24	-70.10	84.30
δ_{2017}Year	-0.92	7.06	4.12	16.35	-60.20	90.45
δ_{2018}Year	-20.70	7.52	8.53	17.40	-68.84	96.26
δ_{2019}Year	-33.16	7.75	-28.96	17.94	-102.13	99.26
δ_{2020}Year	-36.71	8.20	-27.03	19.00	-119.54	105.09
Parameter						
Random part: LA level						
Intercept variance	9040	95.08	35199	187.6	612705	782.8
Random part: observation level						
Residual variance	3018	54.94	16183	127.2	495216	703.7
Deviance	10002.5		11439.6		14381.7	
Log likelihood	-5001.3		-5719.8		-7190.9	
Number of local authorities	147		147		147	
Number of observations	882		882		882	
Note: the outcome is the intervention rate, per 100,000 children						

Appendix 26. Full Poisson regression model output.

Table 39. Full Poisson regression model output.

	CLA		CPP		CIN	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part						
β_0 Intercept	-6.46	0.74	-6.23	0.68	-1.90	0.62
β_1^w Relative poverty	0.01	0.00	0.02	0.01	0.02	0.01
β_1^b Relative poverty	0.04	0.01	0.03	0.01	0.01	0.01
β_2^w Employment	0.00	0.00	0.00	0.00	-0.00	0.00
β_2^b Employment	-0.00	0.01	0.01	0.01	-0.02	0.01
δ_{2015}Year	-	-	-	-	-	-
δ_{2016}Year	-0.02	0.02	0.00	0.02	-0.02	0.02
δ_{2017}Year	-0.00	0.02	0.01	0.03	-0.02	0.03
δ_{2018}Year	-0.07	0.03	0.00	0.03	-0.03	0.02
δ_{2019}Year	-0.13	0.03	-0.06	0.03	-0.05	0.03
δ_{2020}Year	-0.17	0.03	-0.09	0.04		
Parameter	Estimate	Std. Dev.	Estimate	Std. Dev.	Estimate	Std. Dev.
Random part: LA level						
Intercept variance	0.08	0.28	0.07	0.26	0.05	0.23
Random part: observation level						
Intercept variance	0.02	0.16	0.03	0.19	0.04	0.19
Deviance	8693.6		10283.3		13161.4	
Log likelihood	-4346.8		-5141.7		-6580.7	
Number of local authorities	147		147		147	
Number of observations	882		882		882	
Note: the outcome is the log of the intervention rate per 100,000 children						

Appendix 27. Full linear regression model output, additionally controlling for child population and 1/child population.

Table 40. Linear regression model output, additionally controlling for child population and 1/child population.

	CLA		CPP		CIN	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part						
β_0 Intercept	105.88	220.56	40.98	446.49	7832.78	2089.98
β_1^w Relative poverty	4.61	1.58	18.57	3.64	49.97	20.07
β_1^b Relative poverty	10.27	1.90	20.45	3.84	45.08	17.96
β_2^w Employment	0.64	1.17	0.89	2.70	-20.66	14.90
β_2^b Employment	-0.27	2.59	3.06	5.24	-68.80	24.54
β_3^w Child population	-0.00	0.00	-0.00	0.00	-0.01	0.02
β_3^b Child population	-0.00	0.00	-0.00	0.00	-0.00	0.00
β_4^w (1/Child population)	4099216.70	5855421.49	12943837.13	13500182.52	80169457.66	74505578.61
β_4^b (1/Child population)	1527947.19	600715.28	2409680.51	1216033.45	2296941.77	5692208.36
δ_t Year						
Year - Linear	-22.37	10.92	-33.41	25.19	-122.97	139.00
Year - Quadratic	-10.03	4.59	-26.84	10.59	1.30	58.47
Year - Cubic	5.054	4.58	5.61	10.56	-29.20	58.29
Year - Quartic	8.00	4.59	11.47	10.59	16.07	58.43
Year - Quintic	-8.84	4.59	4.77	10.59		58.43
Parameter	Estimate	Std. Dev.	Estimate	Std. Dev.	Estimate	Std. Dev.
Random part: LA level						
Intercept variance	(β_0 Intercept)	82.94	(β_0 Intercept)	166	(β_0 Intercept)	762.1
Random part: observation level						
Residual variance		55.38		127.7		704.6
Pseudo-R^2 (fixed effects)	0.36		0.3		0.27	
Pseudo-R^2 (total)	0.8		0.74		0.67	
AIC	9919.26		11332.45		14251.07	
Number of local authorities	147		147		147	
Number of observations	882		882		882	
Note: the outcome is the intervention rate, per 100,000 children						

Appendix 28. Linear regression model output, controlling for local authority prevention spend.

Table 41. Linear regression model output, additionally controlling for prevention spend per child the year before.

	CLA		CPP		CIN	
Parameter	Estimate	Std. Err.	Estimate	Std. Err.	Estimate	Std. Err.
Fixed part						
β_0 Intercept	26.14	249.84	-80.24	502.02	5906.89	2255.14
β_1^w Relative poverty	5.25	1.55	19.56	3.57	51.86	19.70
β_1^b Relative poverty	9.96	1.98	19.82	3.98	49.82	17.89
β_2^w Employment	0.47	1.17	0.63	2.68	-20.71	14.80
β_2^b Employment	0.31	2.86	3.57	5.74	-53.81	25.78
β_3^w Prevention spend per child the year before	0.04	0.06	0.21	0.13	-0.30	0.73
β_3^b Prevention spend per child the year before	0.27	0.10	0.44	0.20	2.70	0.87
δ_{2015}Year	-	-	-	-	-	-
δ_{2016}Year	-6.91	6.70	3.92	15.38	-123.51	93.03
δ_{2017}Year	1.83	7.33	6.02	16.84	-189.58	108.70
δ_{2018}Year	-21.24	8.56	-2.95	19.68	-232.46	112.85
δ_{2019}Year	-33.96	8.89	-42.42	20.43	-298.46	127.87
δ_{2020}Year	-41.89	10.08	-58.08	23.15		
Parameter	Estimate	Std. Dev.	Estimate	Std. Dev.	Estimate	Std. Dev.
Random part: LA level						
Intercept variance	7486	86.52	29589	172.0	569096	754.4
Random part: observation level						
Residual variance	3049	55.22	16094	126.9	491203	700.9
Deviance	9984.1		11411.9		14366.1	
Log likelihood	-4992.0		-5705.9		-7183.0	
Number of local authorities	147		147		147	
Number of observations	882		882		882	
Note: the outcome is the intervention rate, per 100,000 children						

Study 4 Appendices

Appendix 29. Formula for the model used to identify local authorities with outlying trends in care entry.

To identify outliers, and using panel data from local authorities in England, I fit a linear multilevel model for the period 2007-2019, with age standardised rate of children entering care as the outcome. I included fixed effects for year, deprivation level and unemployment rate, and random intercept and slope terms to account for the correlation between measurements within local authorities over time. This model was adapted from previous quantitative work, the time period restricted to after the 2007 change in trend identified in that work (D. L. Bennett et al., 2020).

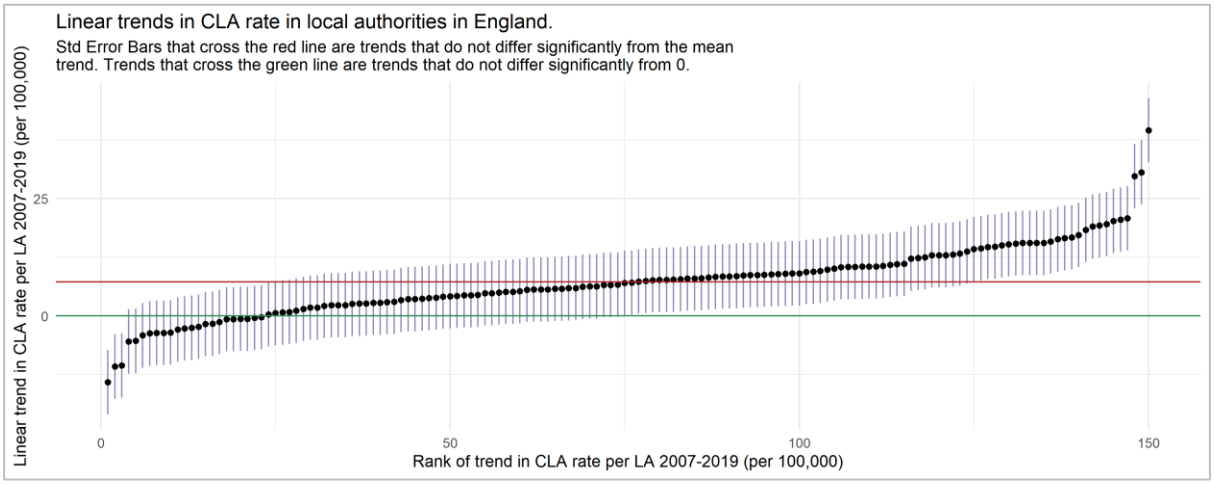
$$y_{ij} = \beta_0 + \beta_1 x_{1ij} + \beta_2 x_{2i} + \beta_3 x_{3j} + \beta_4 x_{3j} x_{2i} + U_i + V_i x_{3j} + \varepsilon_{ij}$$

Let:

- y_{ij} denote the age standardised rate of children taken into care in LA i in year j
- x_{1ij} denote covariate lagged unemployment rate, coded as a continuous variable and dependent on LA i and on year j
- x_{2i} denote the weighted rank of deprivation dependent on LA i, a continuous variable ranging from 0 to 1
- x_{3j} denote year j, coded as continuous variable and centered at 2007
- $(U_i, V_i) \sim BVN(0, S_0)$ denote random intercept and slope for LA i
- $\varepsilon_{ij} \sim N(0, S_1)$ denote the random error for LA i in year j

From this model, I extracted information about local-authority specific deviations from the average trend, and visualised these using a caterpillar plot. Figure 47 shows an illustrative plot, with local authority names removed. Each point represents a local authority's estimated linear trend in children entering care; the purple lines represent the error around an estimate. I targeted recruitment to local authorities to the far left and right of the caterpillar plot, with error bars that do not cross the red mean trend line. To the far left are local authorities with more stable trends in care entry, given their levels of deprivation and unemployment, with some local authorities even exhibit declining care entry rates. To the far right are local authorities with unusually drastic increases in care entry. These may be considered our outliers.

Figure 47. Caterpillar plot ranking local authorities' trends in children entering care.



Appendix 30. Participants information sheet.

Version 03 | UNIVERSITY OF LIVERPOOL | June 9, 2020

Participant Information

1. Title of the study

Narratives of change in Children's Services

2. Version number and date

The participant information sheet is version 03, dated 9th June 2020.

3. Invitation

You are being invited to take part in an online or telephone interview, as part of research exploring changes in Children's Services over the past decade. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask us if you would like more information or if there is anything that you do not understand. Please also feel free to discuss this with your friends and colleagues if you wish. You should only agree to take part if you want to.

4. What is the purpose of the study?

This study forms the second phase of a project investigating recent trends in children becoming looked after in England. In the first phase of the research, we used public data to explore drivers of children becoming looked after at Local Authority level. In this second phase, we want to understand how key figures within Local Authorities make sense of changes in Children's Services. This will help us to better understand the drivers of children becoming looked after, and to make appropriate recommendations for policy. The research is being undertaken in fulfilment of a PhD.

5. Why have I been chosen to take part?

You have been chosen to take part because you are currently employed by a Local Authority, and involved in policymaking in Children's Services. Between 14 and 30 participants will be interviewed.

6. Do I have to take part?

No. Participation is completely voluntary and you are free to withdraw your participation at any time, without explanation, and without incurring a disadvantage.

7. What will happen if I take part?

If you agree to participate, you will take part in a remote, audio-recorded interview with PhD candidate Davara Bennett. The interview will take place remotely, online or via telephone, at a time that suits you, and will last around 30 to 45 minutes. You will be asked to take the call in a location where you feel comfortable and able to speak freely. Consent will be sought before we begin. You will be sent a digital copy of the consent form. You will be given the option of printing, signing, scanning the form, or adding your e-signature to the form, before returning it to the researcher via email for counter-signature. During the interview, you will have the opportunity to share your knowledge about what might be driving changes in Children's Services:

- First, the interviewer will ask open-ended questions about changes in Children's Services.
- Then, the interviewer will focus the discussion by sharing some simple plots and drawing out your interpretations of these plots.
- Finally, you will be invited to share the study information with other key policymakers, in a process known as 'snowball sampling'.

8. How will my data be used?

We are required under General Data Protection Regulation (GDPR) to inform you that The University processes personal data as part of its research and teaching activities in accordance with the lawful basis of 'public task', and in accordance with the University's purpose of "advancing education, learning and research for the public benefit".

Under UK data protection legislation, the University acts as the Data Controller for personal data collected as part of the University's research. The PhD candidate's primary supervisor acts as the Data Processor for this study, and any queries relating to the handling of your personal data can be sent to Professor David Taylor-Robinson (dctr@liverpool.ac.uk, telephone +44 (0)151 795 8306). Further information on how your data will be used is outlined in the table below.

How will my data be collected?	Interviews will be audio-recorded using an encrypted, password-protected recording device.
How will my data be stored?	Data will be stored on a secure password-protected University of Liverpool server.
How long will my data be stored for?	Recordings will be uploaded to the server and deleted from the recording device immediately following the interview. Signed consent forms and original recordings will be retained on the server for a period of 10 years from the end of the PhD project (currently scheduled to end on 30th April 2023) before being deleted. We will give you the option of consenting to the fully anonymised transcript of your interview being deposited in the University of Liverpool Research Data Catalogue to support future research.
What measures are in place to protect the security and confidentiality of my data?	Personal data will be stored on a secure server, accessible only to the research team.
Will my data be anonymised?	Yes. During the course of transcription, any personal information that could identify you will be removed from the transcript or changed.
How will my data be used?	We will analyse your data in accordance with the study purpose. Your words may be used in research outputs but it will not be possible to identify you from any quotations. If you consent to your anonymised data being deposited in the University of Liverpool Research Data Catalogue, it may be used in future research.
Who will have access to my data?	Personal data will be accessible only to the research team. If you consent to your anonymised data being deposited in the University of Liverpool Research Data Catalogue, other researchers may access this.
Will my data be archived for use in other research projects in the future?	Only if you give explicit consent for this. With consent, fully anonymised data will be deposited in the University of Liverpool Research Data Catalogue for sharing and use by other authorised researchers to support future research.
How will my data be destroyed?	Data will be deleted from the server.

9. Are there any risks in taking part?

We do not envisage any risks arising from your participation. The topic guide questions will not directly address sensitive issues, but it is possible that the discussion might provoke an emotional response.

This will be dealt with in a sensitive and appropriate manner by the interviewer. Should you experience any discomfort or disadvantage as part of the research, please make this known to the researcher.

10. Are there any benefits in taking part?

There may be no direct benefit to you. We hope that taking part in the interview will be an interesting experience, and that your views and experiences will help us to better understand changes in Children's Services, and ultimately make appropriate evidence-informed policy recommendations.

11. What will happen to the results of the study?

The results will be published as part of a PhD thesis. If you wish to receive a summary of findings, and give consent for the purpose, we will share this with you. Results may also be disseminated in the peer-reviewed scientific literature, and in conference and other presentations. In reporting and publishing results, and when quotations from interviews are excerpted, your identity will always be kept anonymous.

12. What will happen if I want to stop taking part?

You can stop taking part in the study at any time without giving any reason and without your rights being affected. After the interview, you can access the information you provided, or ask that it be destroyed, for a minimum of 14 days from the date of the interview, and until the information has been anonymised. Once interview transcripts have been anonymised, it will no longer be possible to access or withdraw the data. If you wish to withdraw from the study, please contact Davara Bennett (Davara.bennett@liverpool.ac.uk, telephone +44 (0)151 795 8686).

13. What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please feel free to let the research team know by contacting Davara Bennett (Davara.bennett@liverpool.ac.uk, telephone +44 (0)151 795 8686). We will try to help. If you remain unhappy or have a complaint that you feel you cannot share with us, then please contact the Research Ethics and Integrity Office at ethics@liv.ac.uk, providing the study name or description, names of the researchers involved, and details of the complaint.

The University strives to maintain the highest standards of rigour in the processing of your data. However, if you have any concerns about the way in which the University processes your personal data, it is important that you are aware of your right to lodge a complaint with the Information Commissioner's Office by calling 0303 123 1113.

Thank you for taking the time to read this information.

Appendix 31. Interview schedule.

Version 01 — UNIVERSITY OF LIVERPOOL — 16th June 2020

Example Topic Guide

Please note that this preliminary topic guide may be cut or refined in response to informal piloting with colleagues and personal acquaintances, advice from other qualitative researchers, and inductively, in response to emerging data from successive interviews.

- *Greetings and thanks.*
- *Ask whether they've had a chance to read the participant information sheet.*
- *Ask if there are any questions. Ask if they're happy to sign the consent form and email it back to me if they haven't already.*
- *Ok, if you're happy, I'm going to press record.*

Ice breaker

- Before we get started, could you tell me a little about your professional background and how you came to your current role?
  - How long have you been working in *[name of LA]*?
- And could tell me a bit more about your current role within Children's Services?
  - What are some of your priorities, as *[job title]*?
  - How have these changed over time?

Starting with some general questions

- How have the resources you have available for Children Services changed over the course of your time in *[name of LA]*?
- How has that influenced what has been prioritised or deprioritised?
- How have those decisions been made?

Focussing in on the issue of upstream prevention

- In the next few questions, I would like to make sure that I am using the right terminology. In *[name of LA]*, what is the difference between 'prevention' and 'early help'? And how do each of these relate to the Children's Services offer in *[name of LA]*?
- In your experience, how has *[name of LA]*'s *[prevention / early help]* offer changed over time?
  - You have mentioned *[list what was discussed, eg type of services, target population, thresholds, resources, practices, priorities, universal vs targeted].* Is there anything else?
  - What do you think is behind some of these changes?
- What are the kinds of decisions that need to be made about *[prevention / early help]*?
  - Can you tell me about a memorable time when you were involved in a specific decision about *[prevention / early help]*?
  - What were the challenges?

- What helped with the decision-making process?
- What are some common / recurring conversations about *[prevention / early help]*?

Co-production of interpretation of the data

In this part of the interview, I will show you several plots. They show some trends that I am interested in, but that I cannot fully explain. I would like to get your perspective on what might explain these trends. We will take them one at a time.

- CLA rates by LA deprivation

  Plot description: this plot shows the rate of children starting to be looked after between 2004 and 2019. The different coloured lines are for areas with different levels of deprivation. So the red line shows the most deprived LAs. The dark blue line shows the least deprived LAs.
  Plot summary: We see an increase in rates, but there is a greater increase in the more deprived areas.

  - What do you make of these trends?
  - What might be contributing to these trends?
    - Changes in the way children's services work?
    - Changes in need in the local population?
    - What needs to be done?
    - *For explanations that do not explicitly address inequality:* You've mentioned *[explanation]*. How might this lead to a greater increase in more deprived areas?

- CLA rates for *[name of LA]* and statistical neighbours.

  Plot description: this is a very similar plot to the last one. The only difference is that instead of grouping areas by their level of deprivation, we have shown outcomes for a few LAs. We have picked out [name of LA] and other areas that are similar enough to be considered 'statistical neighbours'.
  Plot summary: [insert brief summary]

  - Given that these are similarly deprived areas, with similar demographics, how should we be thinking about the variation?
    - Differences in practice
    - Policy
    - Structure of children's services
    - Local context.

- Spend per child by area level deprivation for different categories of spend

  Plot description: This time we are focussing on certain categories of LA spend. Each of these plots shows a different category of spend between 2011 and 2019. Once again, we have grouped LAs by their level of deprivation.
  Plot summary: we see an increase in a few categories of spend, and a decrease in others. Where spend decreases, it decreases more in more deprived areas.

- These categories are quite broad. Could you talk me through what they mean in the context of *[LA name]*?
  - 'Sure start children's centres'
  - 'Other children and family services'
  - 'Services for young people'
  - 'Youth justice'
  - Where do open-door community services tend to fall?
  - Where do more targeted services tend to fall?
- What do you make of these trends?
- In your experience, what is the relationship between [*early help / prevention*] spend and outcomes?
  - In *[name of LA*] what are the complications in that relationship / why is the relationship not straightforward?

- Prevention spend *[name of LA]* and LAIT statistical neighbours.

  Plot description: in this plot, we want to focus on [insert prevention category of interest] spend. We have picked out [name of LA] and other areas that are similar enough to be considered 'statistical neighbours'.
  Plot summary: [insert brief summary]

  - What do you make of these differences?
    - A matter of how data were recorded?
    - Differences in practice
    - Policy
    - Structure of children's services
    - Local context.

Concluding questions

- If you had unlimited resources, what is the first action that you would take on *[prevention / early help]*?
- How is covid19 playing into some of the issues we discussed?
- Who (else) should I be speaking to if I am to better understand *[name of LA]'s [early help / prevention]* strategy?
- Are there any local documents that you think would be helpful for me in understanding *[early help / prevention]* in *[name of LA]*. Could you send them my way?

Appendix 32. Illustrative plots.

Example local authority (Camden) randomly selected for the tailored plots using R code: sample(LA, 1), where LA is a vector of all local authority names.

Figure 48. Illustrative plot showing trends CLA rates by LA income deprivation, 2004-2019, with 95% confidence intervals.

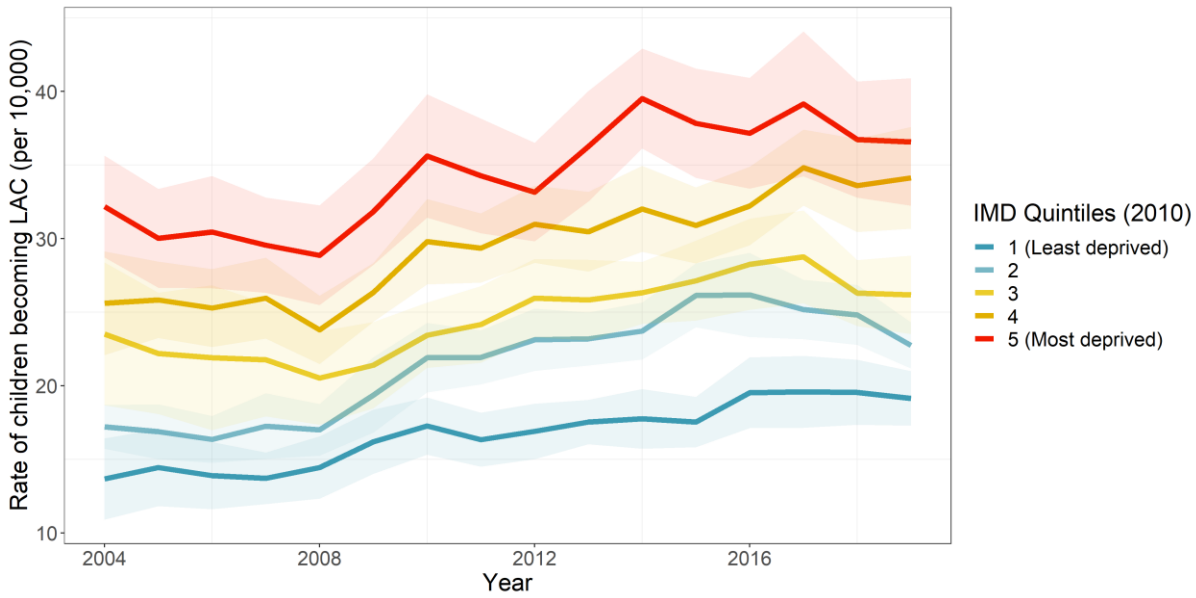
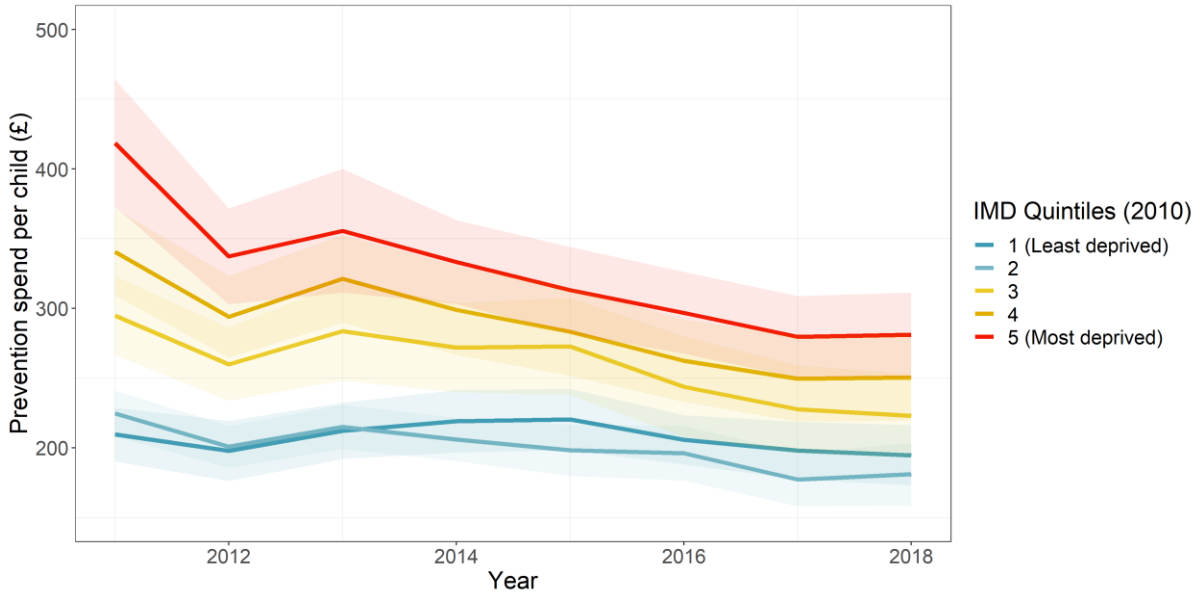


Figure 49. Illustrative plot showing trends in children looked after rates for an example local authority, its statistical neighbours, and the national median, 2004-2019.

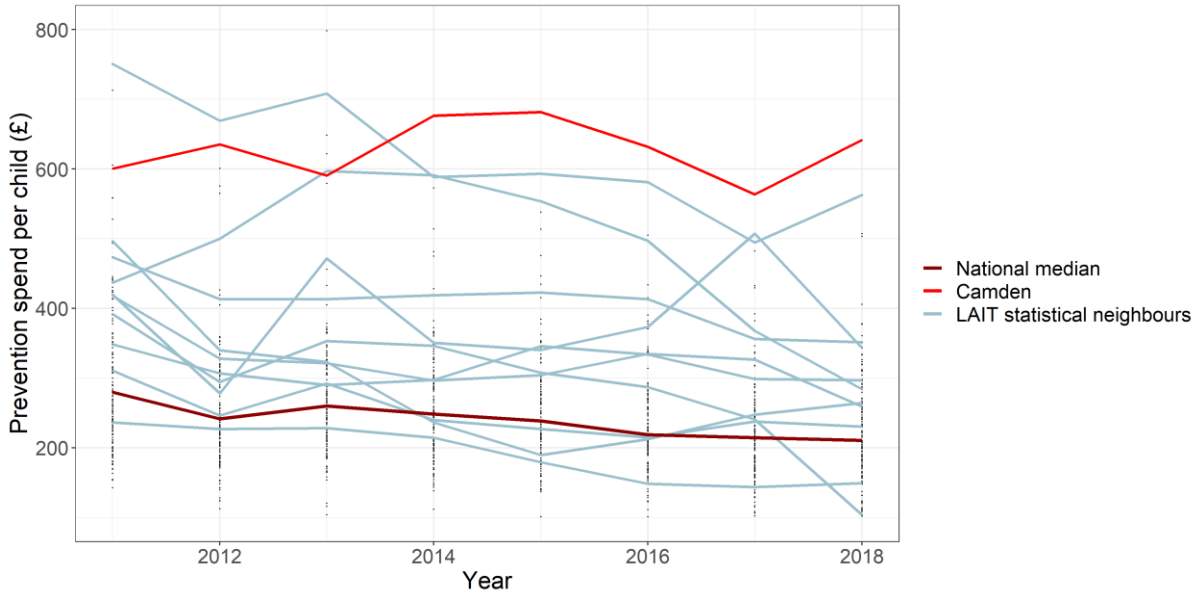
Note: LAIT, Local Authority Interactive Tool (Department for Education, 2015).

Figure 50. Illustrative plot showing trends in prevention spend (adjusted for inflation to 2017 prices, using the consumer price index deflator), by LA income deprivation, 2011-18, with 95% confidence intervals.



Note: IMD, Index of Multiple Deprivation (income deprivation domain).

Figure 51. Illustrative plot showing trends in prevention spend for an example local authority, its statistical neighbours, and the national median, 2011-18.



Note: LAIT, Local Authority Interactive Tool (Department for Education, 2015).

Appendix 33. Consent form.

Participant consent form

Version number & date: Version 02, 8th June 2020
Research ethics approval number: 7777
Title of the research project: Narratives of change in Children's Services
Name of researchers: Ms Davara Bennett, Prof David Taylor-Robinson, Dr Sophie Wickham, Prof Kate Morris, Prof Ben Barr

Please initial box

1. I confirm that I have read and have understood the information sheet dated 9th June 2020 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that taking part in the study involves an audio-recorded video or telephone interview. ☐
3. I understand that my participation is voluntary and that I am free to stop taking part or withdraw from the study at any time without giving any reason and without my rights being affected. In addition, I understand that I am free to decline to answer any particular question or questions. ☐
4. I understand that I can request access to the information I provide and I can request the destruction of that information if I wish for a minimum of 14 days from the date of the interview, and up until anonymisation. I understand that following anonymisation I will no longer be able to request access to, or withdrawal of, the information I provide. ☐
5. I understand that signed consent forms and original audio will be retained securely and in line with data protection requirements at the University of Liverpool for a period of ten years from the end of the PhD project before being deleted. ☐
6. I understand that information collected about me that can identify me will not be shared beyond the study team. ☐
7. We would like to give you the option of having your fully anonymised data archived, to support future research projects by authorised researchers. If you initial the box, you consent to fully anonymised data being deposited in the University of Liverpool Research Data Catalogue. ☐
8. I understand that the researchers authorised by this consent form may use my words in publications, reports, webpages, and other research outputs,

(Continue to next page)

only if they agree to preserve the confidentiality of the information as requested in this form. ☐

9. A summary of the study findings will be written; please indicate whether you would like to receive a copy. If you initial the box, please provide an email address to which the summary should be sent: ☐

_____

Email address

10. I agree to take part in the above study. ☐

_____	_____	_____
Participant name	Date	Signature
_____	_____	_____
Name of person taking consent	Date	Signature

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Appendix 34. Research Ethics Committee Approval.

UNIVERSITY OF LIVERPOOL

Health and Life Sciences Research Ethics Committee (Psychology, Health and Society)

23 July 2020

Dear Prof Taylor-Robinson

I am pleased to inform you that your application for research ethics approval has been approved. Application details and conditions of approval can be found below. Appendix A contains a list of documents approved by the Committee.

Application Details

Reference:	7777
Project Title:	Narratives of change in Children's Services
Principal Investigator/Supervisor:	Prof David Taylor-Robinson
Co-Investigator(s):	Ms Davara Bennett
Lead Student Investigator:	-
Department:	Public Health and Policy
Approval Date:	23/07/2020
Approval Expiry Date:	Five years from the approval date listed above

The application was **APPROVED** subject to the following conditions:

Conditions of approval

Please note: this approval is subject to the restrictions laid out in the Policy on research involving human participants in response to COVID-19. Therefore all face-to-face contact with human participants for the purpose of research should be halted until further notice; unless the study qualifies as one of the exceptions specified in the Policy and has been discussed with Research Ethics and Integrity team.

- All serious adverse events must be reported to the Committee (ethics@liverpool.ac.uk) in accordance with the procedure for reporting adverse events.
- If you wish to extend the duration of the study beyond the research ethics approval expiry date listed above, a new application should be submitted.
- If you wish to make an amendment to the study, please create and submit an amendment form using the research ethics system.
- If the named Principal Investigator or Supervisor changes, or leaves the employment of the University during the course of this approval, the approval will lapse. Therefore it will be necessary to create and submit an amendment form within the research ethics system.
- It is the responsibility of the Principal Investigator/Supervisor to inform all the investigators of the terms of the approval.

Kind regards,

Health and Life Sciences Research Ethics Committee (Psychology, Health and Society)

iphsrec@liverpool.ac.uk

0151 795 5420

Page 1 of 2

Appendix - Approved Documents

(Relevant only to amendments involving changes to the study documentation)

The final document set reviewed and approved by the committee is listed below:

Document Type	File Name	Date	Version
Participant Consent Form	ConsentFormV02	08/06/2020	02
Participant Information Sheet	ParticipantInformationSheetV03	09/06/2020	03
Study Proposal/Protocol	ProtocolV03	16/06/2020	03
Interview Schedule	ExampleTopicGuideV01	16/06/2020	01
Advertisement	Template emails - gatekeepers and potential participants	16/06/2020	01

Study 5 Appendices

Appendix 35. Summary of inspection frameworks.

Table 42. Summary of inspections over time.

Inspection framework	Time period**	Summary	Domains	Sub-domains
Safeguarding and Looked After Children Inspection (SLAC)	August 2009 – August 2012	-	Safeguarding Overall effectiveness*	-
			Looked After Children Overall Effectiveness	
Child Protection Inspections (CPI)	July 2012 – August 2013	Overall Effectiveness*	-	-
Targeted Looked After Children Inspection (TLAC)	August 2013	Overall Effectiveness	-	-
Single Inspection Framework (SIF)	February 2014 – August 2018	Overall Judgement	Children who need help and protection*	-
			Children looked after and achieving permanence	Adoption Performance Experiences and progress of care leavers
			Leadership, management and governance	-
Inspection of Local Authority Children's Services (ILACS)	March 2018 – September 2019	Overall effectiveness	Impact of leaders	-
			Experiences and progress of children who need help and protection*	
			Experiences and progress of children in care and care leavers	

* Shaded cells represent the judgement category used as the exposure in analyses
** Based on inspection report publication dates.

Table 43. Summary of inspection processes.

Inspection	Time period*	Notice	Duration	Inspection process (for inspections resulting in four-point judgements)
Safeguarding and Looked After Children Inspection (SLAC)	Aug 09 – Aug 12	~10 working days	10 working days	Review case files Assess documents and data held by Ofsted and provided by the local authority Conduct meetings or focus group discussions with key stakeholders including children, young people, their parents and carers Evaluate the effectiveness of the Local Safeguarding Children Board Consider findings of the separate unannounced inspection of front door arrangements Evaluate progress against recommendations of any serious case reviews Conduct survey of children
Child Protection Inspections (CPI)	Jul 12 – Aug 13	None	14 days	Review case files and meet with children, young people, parents and carers for a sample of cases Shadow staff carrying out day-to-day work Observe of multiagency meetings Assess of documents and data held by Ofsted and provided by the local authority
Single Inspection Framework (SIF)	Feb 14 – Aug 18	1 day	~ 9 days onsite	Evaluate a sample of children's cases – alongside discussion with relevant professionals Test decision-making at all stages of a child's journey Meet with children, young people, parents and carers Shadow staff in day-to-day work Observe multiagency meetings Obtain and assess local authority data and performance information
Inspection of Local Authority Children's Services (ILACS)	Mar 18 – Sept 19	~ 5 working days	Standard inspection: 3 weeks (2 of fieldwork) Short inspection: 2 weeks (1 of fieldwork)	Obtain and assess local authority data, performance information and audits Evaluate a sample of children's cases – alongside discussion with relevant professionals When possible and appropriate, meet with children, young people, parents and carers. Shadow staff in day-to-day work When possible and appropriate, observe multi-agency/single-agency meetings Assess whether the local authority's annual self-evaluation is accurate

* Based on inspection report publication dates.

Appendix 36. Summary of missing data.

Table 44. Summary of missing data, 2010-14 (complete data across all variables from 2015).

		Year				
	Outcome	2010	2011	2012	2013	2014
Missing	**CLA**	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
observations;	**CPP**	0 (0%)	0 (0%)	2 (1.4%)	1 (0.7%)	0 (0%)
N (%)	**CIN**	8 (5.4%)	7 (4.8%)	2 (1.4%)	1 (0.7%)	2 (1.4%)

Appendix 37. Model formulae.

Let:

- $\Pr(Y_{ij} = y\ ) \sim \text{Poisson}(\lambda_{ij})$
- λ_{ij} denote the mean count of child welfare interventions in LA i in year j conditional of covariate values
- x_{0ij} denote the child population in LA i in year j
- x_{1ij} denote inspection, coded as a binary variable and dependent on LA i and year j. The reference level is no inspection ($x_{1ij} = 0$).
- x_{2ij} denote inspection judgement, coded as a categorical variable and dependent on LA i and year j. The reference level is no inspection ($x_{2ij} = 0$).
- x_{3i} denote the weighted rank of deprivation dependent on LA i, a continuous variable ranging from 0 to 1, from least to most deprived.
- x_{4j} denote calendar time in years; a continuous variable centred at 2010
- $(U, V) \sim MVN(0, S)$ denote random intercept and slope for LA i
- $\varepsilon_{ij} \sim N\ (0, s_{\varepsilon}\ )$ denote the overdispersion random effect for LA i in year j, equivalent to the residual variance

1. <u>Regression model using binary inspection occurrence as the main exposure</u>
    a. Child welfare outcome: children entering care

$$\log(\lambda_{ij}) = \beta_0 + \log(x_{0ij}) + \beta_1 x_{ij} + \beta_3 x_{3i} + \beta_{4a} x_{4j} + \beta_{4b} x_{4j}^2 + U_i + V_i x_{4j} + \varepsilon_{ij}$$

    b. Child welfare outcome: children being placed in a child protection plan

$$\log(\lambda_{ij}) = \beta_0 + \log(x_{0ij}) + \beta_1 x_{1ij} + \beta_3 x_{3i} + \beta_{4a} x_{4j} + \beta_{4b} x_{4j}^2 + U_i + V_i x_{4j} + \varepsilon_{ij}$$

    c. Child welfare outcome: children beginning an episode of need placed in a child protection plan

$$\log(\lambda_{ij}) = \beta_0 + \log(x_{0ij}) + \beta_1 x_{1ij} + \beta_3 x_{3i} + \beta_{4a} x_{4j} + U_i + V_i x_{4j} + \varepsilon_{ij}$$

2. Regression model using categorical inspection judgement as the main exposure:

    a. Child welfare outcome: children entering care

$$\log(\lambda_{ij}) = \beta_0 + \log(x_{0ij}) + \beta_2 x_{2ij} + \beta_3 x_{3i} + \beta_{4a} + \beta_{4b} x_{4j}^2 + U_i + V_i x_{4j} + \varepsilon_{ij}$$

    b. Child welfare outcome: children being placed in a child protection plan

$$\log(\lambda_{ij}) = \beta_0 + \log(x_{0ij}) + \beta_2 x_{2ij} + \beta_3 x_{3i} + \beta_{4a} + \beta_{4b} x_{4j}^2 + U_i + V_i x_{4j} + \varepsilon_{ij}$$

    c. Child welfare outcome: children beginning an episode of need placed in a child protection plan

$$\log(\lambda_{ij}) = \beta_0 + \log(x_{0ij}) + \beta_2 x_{2ij} + \beta_3 x_{3i} + \beta_{4a} x_{4j} + U_i + V_i x_{4j} + \varepsilon_{ij}$$

3. Regression model using categorical inspection judgement as the main exposure, and including an interaction between inspection judgement and deprivation

    a. Child welfare outcome: children entering care

$$\log(\lambda_{ij}) = \beta_0 + \log(x_{0ij}) + \beta_2 x_{2ij} + \beta_3 x_{3i} + \beta_{4a} x_{4j} + \beta_{4b} x_{4j}^2 + \beta_5 x_{2ij} x_{3i} + U_i + V_i x_{4j} + \varepsilon_{ij}$$

    b. Child welfare outcome: children being placed in a child protection plan

$$\log(\lambda_{ij}) = \beta_0 + \log(x_{0ij}) + \beta_2 x_{2ij} + \beta_3 x_{3i} + \beta_{4a} x_{4j} + \beta_{4b} x_{4j}^2 + \beta_5 x_{2ij} x_{3i} + U_i + V_i x_{4j} + \varepsilon_{ij}$$

    c. Child welfare outcome: children beginning an episode of need placed in a child protection plan

$$\log(\lambda_{ij}) = \beta_0 + \log(x_{0ij}) + \beta_2 x_{2ij} + \beta_3 x_{3i} + \beta_{4a} x_{4j} + \beta_5 x_{2ij} x_{3i} + U_i + V_i x_{4j} + \varepsilon_{ij}$$

Appendix 38. Trends in exposure.

Figure 52 shows trends in inspection frequency, coloured by inspection judgement. It highlights the greater frequency of inspection between 2012 and 2013. The most common inspection judgement is 'Requires improvement to be good', followed by 'Good' and 'Inadequate' judgements. 'Outstanding' judgements are rare. This led me to group 'Outstanding' and 'Good' into a single category in the models.

Figure 52. Trends in inspection frequency, 2010-20, coloured by inspection judgement.

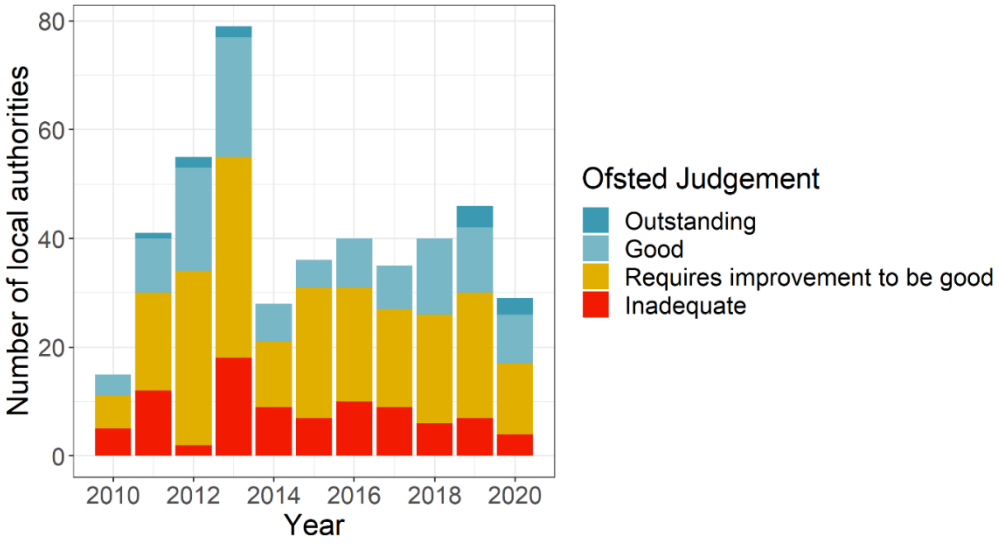
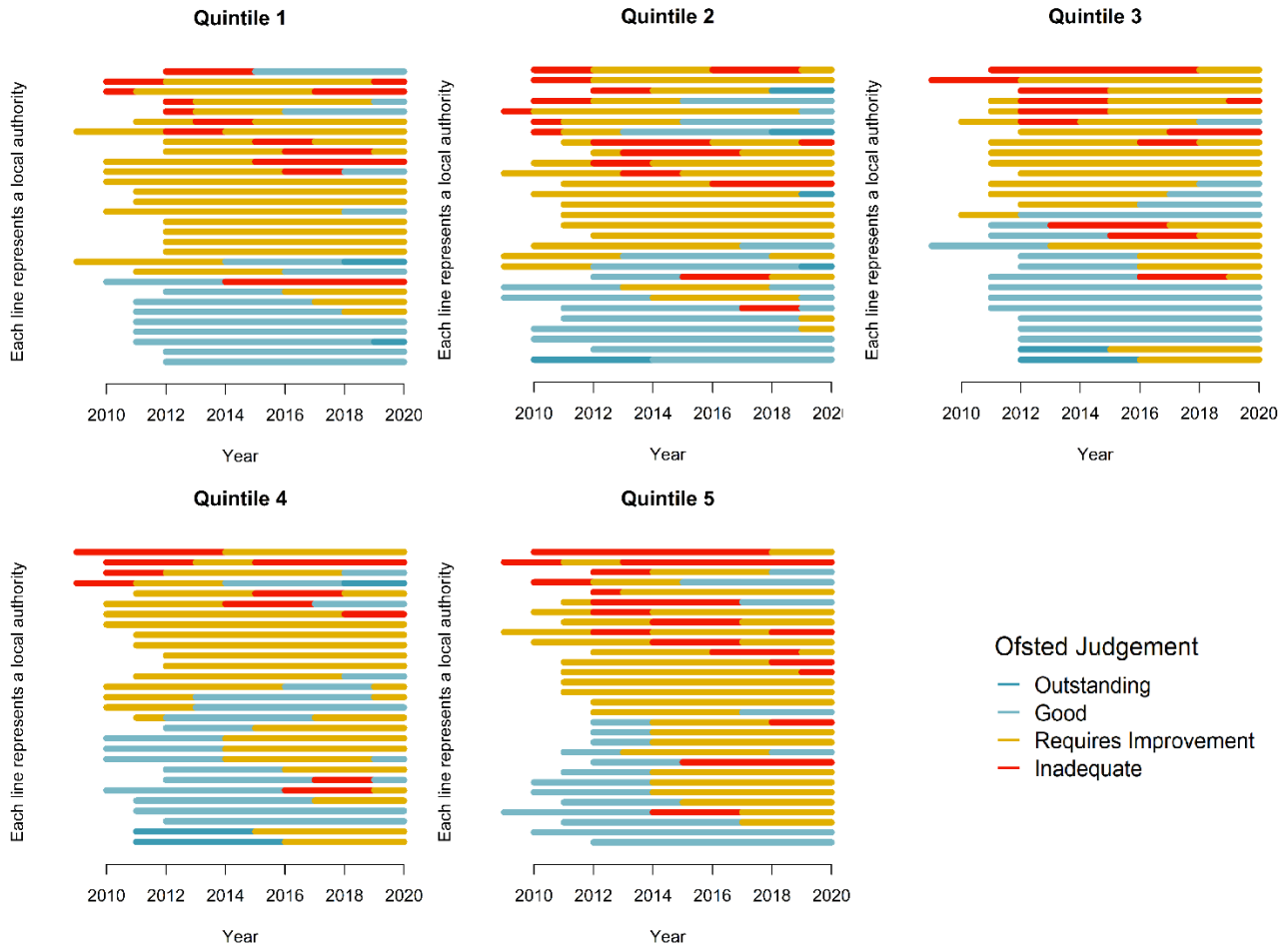


Figure 53 shows the same plot, this time faceted by multiple deprivation quintile where quintile 1 is the least and quintile 5 the most deprived. Overall, the burden of inspection appears to fall relatively evenly across local authorities based on deprivation.

Figure 53. Trends in inspection frequency by multiple deprivation quintile, 2010-20, coloured by inspection judgement and faceted by year (1 = least deprived, and 5 = most deprived).

However, in figure 54, the horizontal line plot for the most deprived quintile of local authorities shows that, in the most deprived quintile of local authorities, there is a clear pattern of inspection judgement downgrading. Very few local authorities exhibit an 'improvement journeys'. This is in contrast to all other quintiles, for which uprating and downgrading are both common.

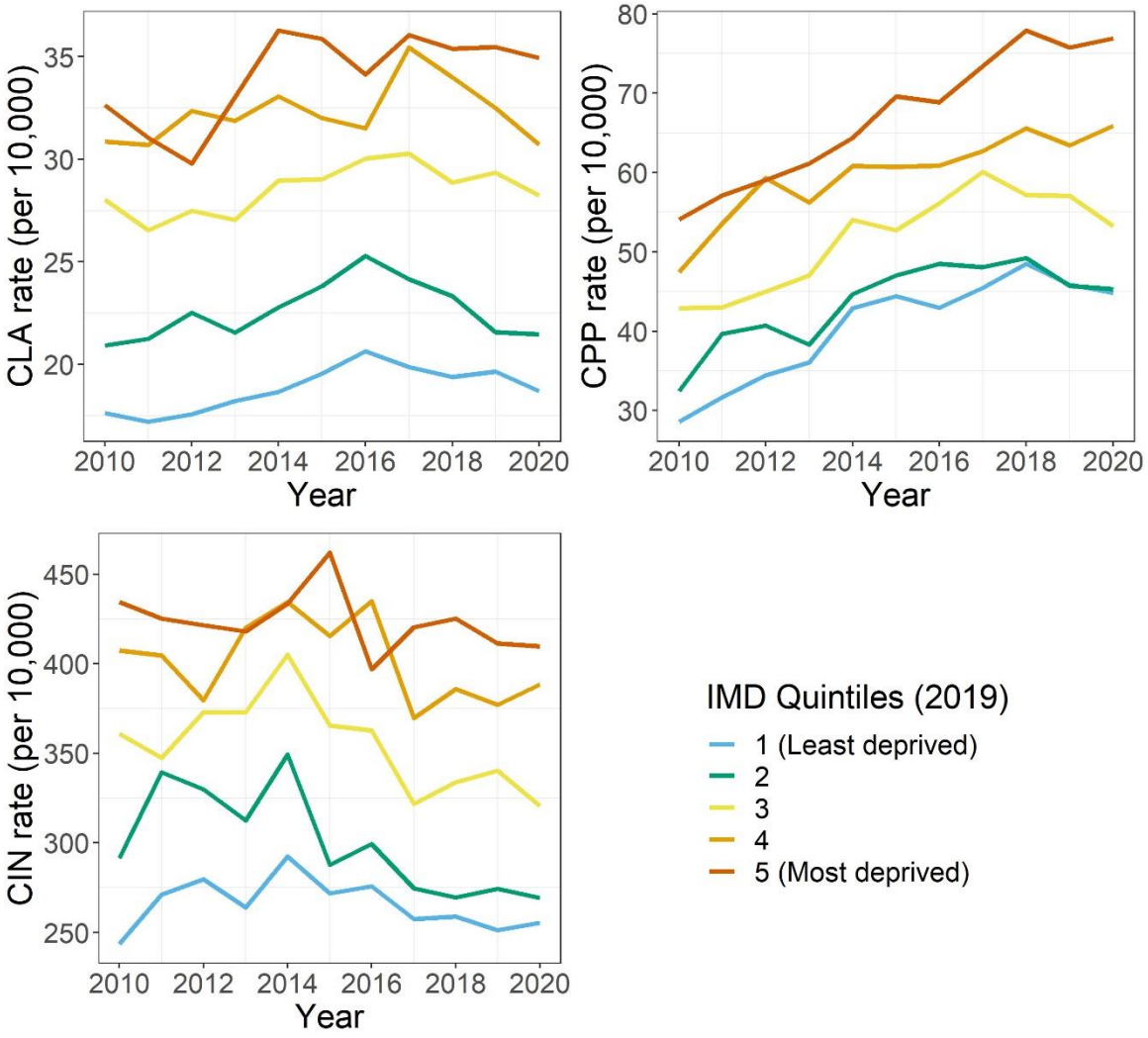
Figure 54. Horizontal line plots showing trends in inspection judgement, 2010-20, faceted by local authority deprivation quintile. Each horizontal line represents a local authority. Colours represent inspection judgements. Within deprivation quintiles, lines are ordered by inspection judgement trajectory.



Appendix 39. Trends in outcomes.

Figure 55 shows the social gradient across child welfare outcomes. Inequalities appear to be increasing for the more acute child welfare outcomes. There is no clear, consistent change in the trend in inequalities among children beginning an episode of need.

Figure 55. Trends in child welfare outcomes by local authority deprivation, 2010-20.



Appendix 40. Full model output.

Table 45. Output of the Poisson models estimating the relative change in CLA rate, logged.

	Model 1		Model 2		Model 3	
Parameter	Estimate	Std. Err.	Estimate	Err.	Estimate	Err.
Fixed part						
β_0 Intercept	-6.478**	0.039	-6.478**	0.039	-6.469**	0.039
β_1 Inspected	0.023*	0.008	-	-	-	-
β_{2a} Outstanding / Good	-	-	-0.004	0.015	-0.026	0.034
β_{2b} Requires improvement	-	-	0.031**	0.012	0.014	0.027
β_{2c} Inadequate	-	-	0.045*	0.019	-0.027	0.040
β_3 Deprivation	0.838**	0.057	0.836**	0.057	0.822**	0.058
β_{4a} Year	0.041**	0.005	0.041**	0.005	0.041**	0.005
β_{4b} Year squared	-0.003**	0.000	-0.003**	0.000	-0.003**	0.000
β_{5a} Outstanding / Good × Deprivation	-	-	-	-	0.041	0.057
β_{5b} Requires improvement × Deprivation	-	-	-	-	0.030	0.042
β_{5c} Inadequate × Deprivation	-	-	-	-	0.125*	0.061
Parameter	Estimate	Std. Dev.	Estimate	Std. Dev.	Estimate	Std. Dev.
Random part: LA level						
Intercept variance	0.064	0.253	0.064	0.253	0.064	0.254
Slope variance	0.001	0.030	0.001	0.030	0.001	0.030
Intercept-slope correlation	-0.64		-0.64		-0.64	
Random part: observation level						
Intercept variance	0.019	0.137	0.019	0.136	0.019	0.136
Deviance	15973.7		15968.5		15963.6	
Log likelihood	-7986.8		-7984.3		-7981.8	
Number of local authorities	147		147		147	
Number of observations	1617		1617		1617	

Note: the outcome is the log of the relative change in the CLA rate per 10,000 children.
Note: * $p < 0.05$, ** $p < 0.01$

Table 46. Output of the Poisson models estimating the relative change in CPP rate, logged.

	Model 1		Model 2		Model 3	
Parameter	Estimate	Std. Err.	Estimate	Err.	Estimate	Err.
Fixed part						
β_0 Intercept	-5.952**	0.042	-5.950**	0.042	-5.949**	0.043
β_1 Inspected	0.030**	0.011	-	-	-	-
β_{2a} Outstanding / Good	-	-	-0.026	0.019	-0.018	0.041
β_{2b} Requires improvement	-	-	0.041**	0.015	0.024	0.032
β_{2c} Inadequate	-	-	0.094**	0.023	0.121*	0.048
β_3 Deprivation	0.739**	0.064	0.737**	0.063	0.737**	0.064
β_{4a} Year	0.088**	0.006	0.087**	0.006	0.087**	0.006
β_{4b} Year squared	-0.005**	0.001	-0.005**	0.001	-0.005**	0.001
β_{5a} Outstanding / Good × Deprivation	-	-	-	-	-0.016	0.069
β_{5b} Requires improvement × Deprivation	-	-	-	-	0.031	0.051
β_{5c} Inadequate × Deprivation	-	-	-	-	-0.046	0.075
Parameter	Estimate	Std. Dev.	Estimate	Std. Dev.	Estimate	Std. Dev.
Random part: LA level						
Intercept variance	0.062	0.249	0.062	0.249	0.062	0.249
Slope variance	0.001	0.033	0.001	0.033	0.001	0.033
Intercept-slope covariance	-0.50		-0.51		-0.51	
Random part: observation level						
Intercept variance	0.034	0.184	0.034	0.183	0.034	0.183
Deviance	18574.5		18556.1		18555.9	
Log likelihood	-9287.3		-9278.4		-9278.0	
Number of local authorities	147		147		147	
Number of observations	1614		1614		1614	

Note: the outcome is the log of the relative change in the CPP rate per 10,000 children.
Note: * $p < 0.05$, ** $p < 0.01$

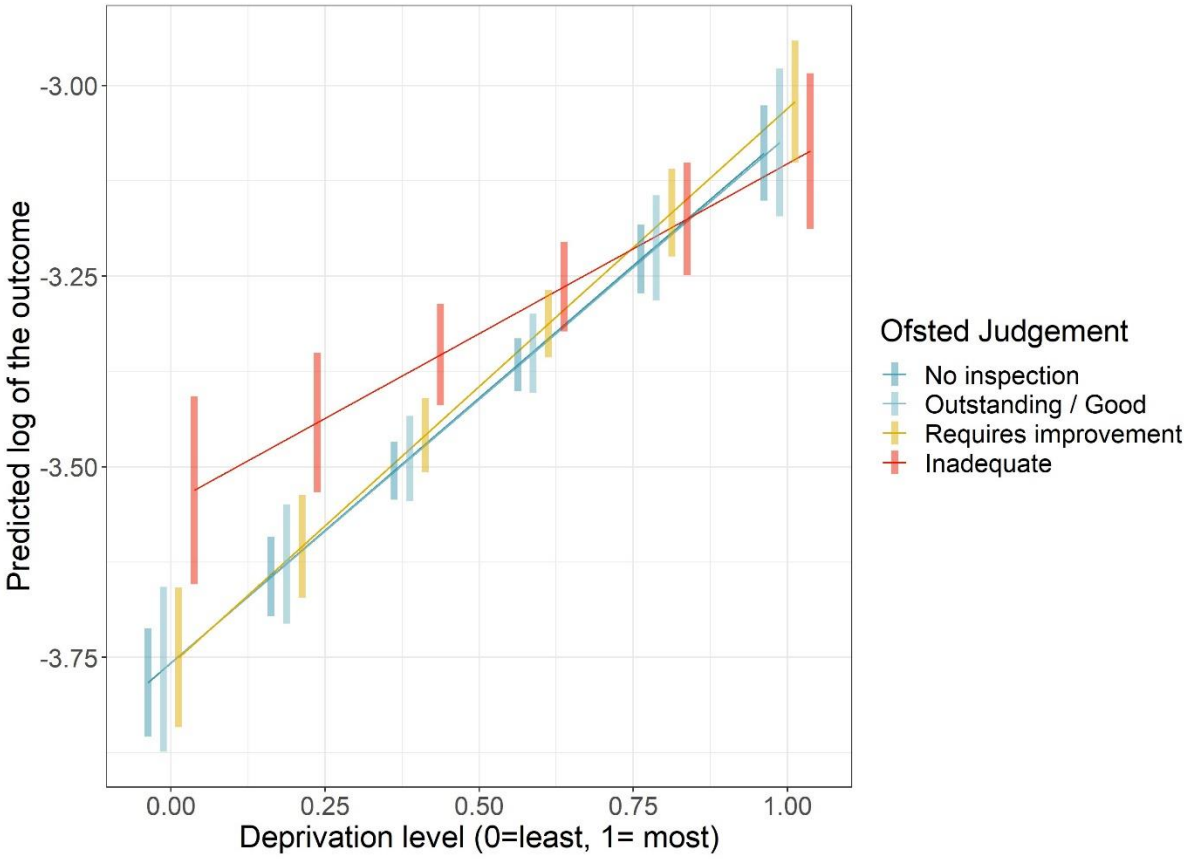
Table 47. Output of the Poisson models estimating the relative change in CIN rate, logged.

	Model 1		Model 2		Model 3	
Parameter	Estimate	Std. Err.	Estimate	Err.	Estimate	Err.
Fixed part						
β_0 Intercept	-3.744**	0.041	-3.744**	0.042	-3.749**	0.042
β_1 Inspected	0.051**	0.012	-	-	-	-
β_{2a} Outstanding / Good	-	-	0.015	0.021	0.017	0.056
β_{2b} Requires improvement	-	-	0.052**	0.017	0.033	0.035
β_{2c} Inadequate	-	-	0.110**	0.026	0.252**	0.055
β_3 Deprivation	0.686**	0.058	0.684**	0.058	0.694**	0.059
β_{4a} Year	-0.007	0.004	-0.007	0.004	-0.007	0.004
β_{4b} Year squared	-	-	-	-	-	-
β_{5a} Outstanding / Good × Deprivation	-	-	-	-	-0.003	0.076
β_{5b} Requires improvement × Deprivation	-	-	-	-	0.035	0.065
β_{5c} Inadequate × Deprivation	-	-	-	-	-0.249**	0.085
Parameter	Estimate	Std. Dev.	Estimate	Std. Dev.	Estimate	Std. Dev.
Random part: LA level						
Intercept variance	0.089	0.298	0.091	0.301	0.091	0.301
Slope variance	0.001	0.038	0.001	0.038	0.001	0.038
Intercept-slope covariance	-0.77		-0.77		-0.77	
Random part: observation level						
Intercept variance	0.046	0.215	0.046	0.214	0.046	0.213
Deviance	24692.0		24683.8		24674.4	
Log likelihood	-12346.0		-12341.9		-12337.2	
Number of local authorities	147		147		147	
Number of observations	1597		1597		1597	

Note: the outcome is the log of the relative change in the CIN rate per 10,000 children.
Note: * $p < 0.05$, ** $p < 0.01$

Appendix 41. Visualising model 3 interactions for CIN.

Figure 56. Model 3 inspection judgement by deprivation interactions for CIN, reference year 2010.



Discussion appendices

Appendix 42. Summary of policy impact.

Impact case study: Davara Bennett, SPHR LiLaC studentship

In my project 'inequalities in Children Looked After in England: local area studies to inform policy', I demonstrate that the risk of being taken into care in England has become increasingly clustered in poor places (D. L. Bennett et al., 2020). I show that rising child poverty has been a major driver of the steep increase in children entering care (D. L. Bennett, Schlüter, Melis, Bywaters, et al., 2022). Cuts to adolescent services have also contributed, though to a lesser extent (D. L. Bennett et al., 2021). I explore the local policy environment for action on these socioeconomic drivers (D. Bennett et al., 2022) and show that Ofsted inspection fails to mitigate, and may exacerbate, structural inequalities (D. L. Bennett, Schlüter, Melis, Webb, et al., 2022). Building on the work of this project, my research team has shown that, in Wales, children from

the most deprived areas are 3.4 times more likely to enter care than those in the least deprived – a paper based on this work is currently in submission (Melis et al., n.d.). In a 2022 School for Public Health Research impact case study, I summarised early policy impacts from the thesis. My ongoing policy and public engagement efforts have led to further impact.

Policy engagement and impact: an update

My research has influenced the final report of the independent review of children's social care. Evidence from the project is cited alongside the recommendation that more children be kept safely with their families (MacAlister, 2022). Having acknowledged that welfare reform was outside the scope of the review, the Chair of the review and author of the final report, Josh MacAlister nevertheless committed to carefully reviewing evidence contribution of child poverty to care entry (Butler, 2021). Citing the work of key child welfare researchers, the final report uses unambiguously causal language to describe the relationship between deprivation and child abuse and neglect, and acknowledges that, in the absence of policy action on child poverty, reforms to the sector "risk treating the symptoms and not the cause" (MacAlister, 2022). The Department for Education research report accompanying the final report also cites multiple outputs from my PhD project and echoes their findings (Department for Education, 2022a).

On publication of a press release for a key study from this project, there was wide press coverage, including national articles in BBC Online (McGarvey, 2022), the Daily Mail (PA Media, 2022) and the Independent (Crew, 2022), wide syndication through regional outlets, and several live radio interviews. Given the powerful role of public moral panics in shaping harmful child welfare policy (Warner, 2013b), this more general dissemination is essential for improving public understanding of childhood adversity. My efforts to engage the wider public also led to a BBC Sounds piece on children in care and the rising cost-of-living (Connolly et al., 2022).

A strategic collaboration with the National Children's Bureau (NCB) has increased the reach of my findings. NCB have produced and disseminated briefings to key policymakers (National Children's Bureau, 2022). A briefing on the impact of investing in prevention, and which included a summary of two papers from this thesis, garnered a response from then Minister for Children and Families, on behalf of the Prime Minister, advising that the briefing would be circulated to analysts in the Department's children's social care policy team responsible for implementing the recommendations of the independent review. I was also invited by the NCB to give a private presentation of the evidence to a number of HM Treasury and Department for Education officials involved in the implementation process, alongside other researchers. I have also presented the work to local practitioners and policymakers – in Liverpool, the city where I

live (*Liverpool as a Child Friendly City for Children in Care*, 2022), and in Camden, where I was once a keyworker in supported accommodation(*Camden Data and Evidence Session*, 2022).

Finally, I have sought to participate in key consultations. I led a response to an inquiry set up by the Senedd to scrutinise the Welsh Government's progress in delivering its commitment to exploring 'radical reform' (Senedd Cymru, 2023). And I recently submitted a response to the consultation in England on the 'children's social care national framework' (Department for Education, 2023a). I hope to continue engaging policymakers and members of the public, and developing my policy entrepreneurial skill.

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