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Research Report

Housing, health and happiness: How inadequate housing shapes child and parental wellbeing

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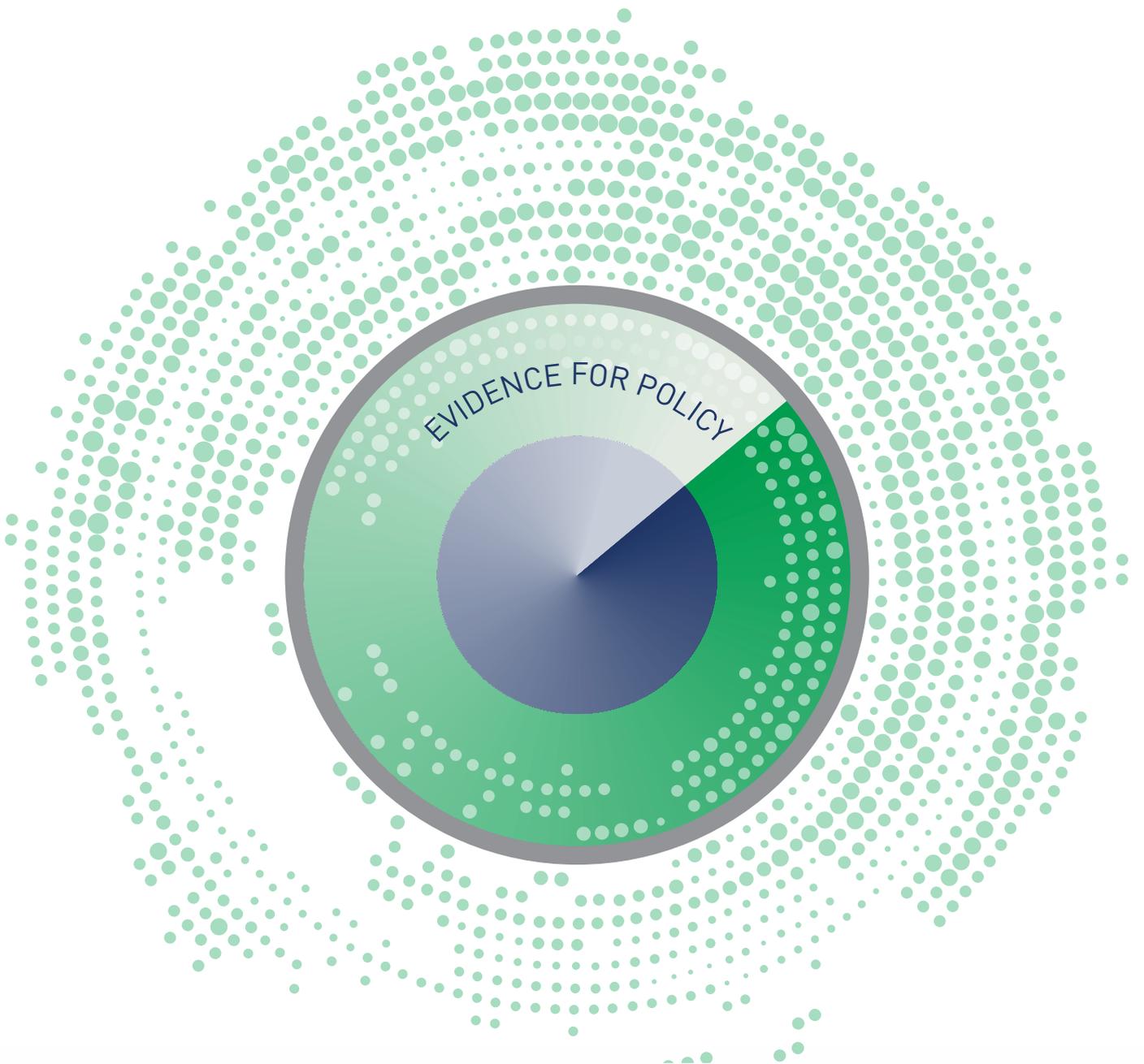


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HOUSING, HEALTH AND HAPPINESS: HOW INADEQUATE HOUSING SHAPES CHILD AND PARENTAL WELLBEING

JAMES LAURENCE, HELEN RUSSELL AND EMER SMYTH



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EXECUTIVE SUMMARY

BACKGROUND TO THE STUDY

There has been a good deal of attention in Irish policy discourse to housing supply and affordability. However, there has been less focus on the extent to which the quality of housing impacts the wellbeing of children and their parents. This study addresses this gap in knowledge by using data from *Growing Up in Ireland* (GUI) Cohort '08 to explore the influence of housing and neighbourhood quality on parental and child wellbeing. In particular, it looks at how the length of time households have spent experiencing inadequate housing can shape families' wellbeing. The study adopts a multidimensional approach to measuring inadequate housing, capturing whether the home is unsuitable (in terms of size or problems like damp), whether the household struggles to adequately heat the home, lack of access to a garden or play space, the number of residential moves and the type of tenure. In addition, neighbourhood quality is assessed in terms of local disorder, having low social capital (with few family and friends in the area) and having access to fewer local services. Child wellbeing is measured using the Strengths and Difficulties Questionnaire (SDQ), which captures the extent of children's socio-emotional difficulties.

The main research questions addressed are:

1. What characteristics of families predict their risk of experiencing inadequate housing?
2. How does length of time experiencing inadequate housing affect different aspects of parental wellbeing?
3. How does length of time experiencing inadequate housing affect the social and emotional development of nine-year-old children, and can any effect be explained by the effect of inadequate housing on parental wellbeing?

MAIN FINDINGS

Income is a crucial driver of housing and neighbourhood quality. Low-income families are more likely to live in unsuitable homes, to struggle to heat these homes and to reside in areas characterised by greater disorder and lower levels of social capital. Long-term access to resources also plays an important role, with those excluded from the labour market (lone-parent families and parents with a disability) experiencing poorer quality housing. Migrant-origin families are also more likely to have inadequate housing, even taking account of their income levels. The study findings provide new insights into the way in which adverse life events, such as mental health, addiction and contact with the criminal justice system, are associated with living in inadequate housing and more disorderly neighbourhoods. Type of tenure also matters, with inadequate housing and frequent moves more

common for those in social housing, private rented accommodation or among those living with the child's grandparents.

The study findings show that inadequate housing is linked with poorer wellbeing outcomes among both parents and children. Children growing up in homes that are too small or inadequately heated and who live in areas that are disorderly with fewer local supports have much poorer socio-emotional wellbeing. This is largely due to the effects of housing and neighbourhood quality on maternal wellbeing. Mothers experiencing inadequate housing and poor-quality neighbourhoods tend to have higher levels of depression, worse self-rated health, and find parenting more stressful, as well as reporting greater conflict and less closeness with their children. These poorer wellbeing outcomes among mothers, in turn, are linked with more socio-emotional difficulties among their children. Importantly, longer periods spent experiencing inadequate housing are associated with more negative wellbeing outcomes than shorter periods.

IMPLICATIONS FOR POLICY

Much of the policy discussion in Ireland has focused on housing supply and affordability, but these research findings highlight the importance of also addressing housing and neighbourhood quality in promoting family and child wellbeing. Although the survey data were collected prior to the recent period of energy inflation, many families, particularly in social or private rented accommodation, struggled to adequately heat their homes. The findings suggest the need for supports for upgrading (retrofitting) as well as targeted financial assistance to meet energy costs. Income supports such as a second-tier targeted (means-tested) child benefit payment for lower-income families could play a key role in helping families, particularly those headed by a lone parent or adult with a disability, access better-quality, adequately heated accommodation.

Much of the impact of poor-quality housing and neighbourhoods on children's wellbeing operates through its effects on mothers, making parenting more stressful and leading to greater parent-child conflict. In keeping with the *Supporting Parents* policy, the findings highlight the importance of putting in place supports for parents, including those with school-aged children, and embedding such supports in both schools and communities. Lower-income families are less likely to feel their local neighbourhoods are safe and supportive. Measures to support community development and to enhance local social capital are therefore important in promoting wellbeing among children and their families.

CHAPTER 1

Introduction and aims

1.1 INTRODUCTION

The housing sector in Ireland has undergone significant changes over the past 30 years. Homeownership has declined from 80 per cent of households in 1991 to 66 per cent in 2022. This has been coupled with very low investment in social housing provision in the post-recession period, and a rise in the proportion of households in private rental accommodation, increasing from 10 per cent in 2006 to 18 per cent in 2022.¹ Meanwhile, recent years have seen several indicators which suggest Ireland is in the midst of a housing crisis (Doolan et al., 2022; Roantree et al., 2021; Slaymaker et al., 2022), with rising housing costs, lack of secure tenure, a shortage of affordable rental accommodation, and a large rise in the number of homeless families.²

While problems in the housing system in Ireland have been under the spotlight for the last decade, relatively little attention has been paid to the consequences of housing issues for the wellbeing of families. Much of the current focus on housing policy is on supply and affordability. Although these elements of the housing situation are crucial, less attention appears to have been given to the quality of housing and its adequacy for families' needs. Building on previous research in this area (e.g. Laurence et al., 2023b), this report seeks to address these issues by exploring how experiences of inadequate housing, in terms of housing provision and the conditions and suitability of families' homes and neighbourhoods, have impacted on family wellbeing in Ireland. Wellbeing is a useful lens for examining the effects of poor housing conditions, given the new Wellbeing Framework (Government of Ireland, 2023) and the creation of a new Child Poverty and Wellbeing Unit in the Department of the Taoiseach. To explore these issues, the report draws on four waves of the *Growing Up in Ireland, 2008 Cohort* data, which follow a representative sample of children and their families over their lives, from age 9 months, in 2007-08, to 9 years old, in 2017-18.

1.2 DEFINING INADEQUATE HOUSING

This study uses a definition of inadequate housing which was previously developed in consultation with key stakeholders to monitor adequate housing in Ireland (Russell et al., 2021). The concept of adequate housing draws on the right to adequate housing outlined in the International Covenant on Economic Social and Cultural Rights (ICESCR). This conceives of adequate housing as a multidimensional

¹ Central Statistics Office (2023). 'Census of Population 2022'. Available at www.cso.ie.

² <https://www.housingagency.ie/data-hub/homelessness>.

concept, including the characteristics of people's homes (such as their tenancy type, security, or quality and suitability, a home's physical conditions or overcrowding), but also the characteristics of their location or local environment (such as the quality of their neighbourhoods or access to services).

This definition aligns with recent ethnographic research in Dublin, which found residents identified four key areas of concern relating to inadequate housing (Manzo and Grove, 2023). This includes, at the household level, sub-standard housing conditions which are harmful to health and wellbeing (such as overcrowding, damp or mould), and unsuitable to families' physical needs (such as poor access for those with mobility restrictions). However, respondents also raised key concerns with the inadequacy of their communities, including the emotional impact of disorderly neighbourhoods (such as feeling unsafe or the prevalence of substance misuse in their local areas) and a lack of child-friendly and community green spaces. Families can therefore experience multiple forms of inadequate housing, and while some aspects of their home might be adequate to their needs, others may not.

1.3 (IN)ADEQUATE HOUSING AND FAMILIES' HEALTH AND WELLBEING

Housing 'encompasses a bundle of characteristics that are integral to family wellbeing' (Bratt, 2002, p.13). Families' physical health can be shaped by the physical quality of housing, such as damp and mould, overcrowding, or poor maintenance and dilapidation, as well as poorer physical conditions of neighbourhoods and a lack of social cohesion. These have been linked to an increased frequency of accidents, respiratory diseases, and general poorer health (Bratt, 2002; Dunn, 2000; Laurence et al., 2023b; Lei and Simons, 2021; Robinette et al., 2018). 'Cold homes' in particular are linked to a range of negative health outcomes, such as circulatory and respiratory conditions, influenza, arthritis/rheumatism, and even mortality (Geddes et al., 2011).

Housing has also been linked to families' mental health. For example, poor housing conditions and overcrowding have been found to increase depression and anxiety, especially among mothers (Evans et al., 2000; Suglia et al., 2011). A large body of evidence has also linked the characteristics of neighbourhoods to people's mental health, such as higher actual and perceived levels of disorder, socio-economic disadvantage, and low social capital (Laurence, 2019; Polling et al., 2014; Stafford et al., 2008). Housing instability and frequent involuntary house moves have also been found to harm mental health (Suglia et al., 2011). Longitudinal evidence has shown that longer periods exposed to inadequate housing appear to have even more negative, and longer-lasting, effects on mental health (Pevalin et al., 2017; Singh et al., 2019). Several reviews of the literature provide more detail of these relationships (Evans et al., 2003; Leventhal and Newman, 2010; Shaw, 2004).

1.3.1 Housing and children's wellbeing: The 'family stress' model

Various dimensions of inadequate housing therefore appear to have pernicious effects on the health and wellbeing of adults. By comparison, however, research into how inadequate housing is linked to children's wellbeing is less well-developed (Clair, 2019; Gambaro et al., 2022), although there is a more established literature on the effects of neighbourhood disadvantage on children's wellbeing (Sellström and Bremberg, 2006).

There are several possible ways inadequate housing may affect children's wellbeing. It may directly impact them, for example, if they feel stigmatised by the conditions of their housing or if a lack of personal space or adverse neighbourhood conditions generates stress (Evans, 2006; Evans and English, 2002; Solari and Mare, 2012). It may also directly impact children through their access to important amenities and services for their development, such as schools, healthcare, or public transport (Gingrich and Ansell, 2014). Experiences of poor conditions, such as cold and damp, can also affect their physical and mental wellbeing (Liddell and Guiney, 2015). Inadequate housing may also indirectly affect children. For example, parents who feel embarrassed about the condition of their home may be less likely to invite children's friends to visit due to embarrassment or shame, impacting children's wellbeing (Bratt, 2002; Evans et al., 2000; Kearns et al., 2000). Similarly, moving house may uproot children from their social networks, harming their wellbeing.

Alongside these pathways, one model for understanding how inadequate housing may shape children's outcomes that has received growing attention is the 'family stress' (FS) model. Originally developed to understand poorer outcomes among more socio-economically disadvantaged children, the FS model posits that economic hardship can lead to acute and chronic stressors (e.g. being unable to pay bills or buy basic necessities) among families. These stressors, in turn, are believed to lead to a constellation of negative mental and interpersonal outcomes (see Conger et al., 2010; Masarik and Conger, 2017). Such stressors may increase depression, anxiety, and psychological distress among parents. They can lead to interparent relationship problems and conflict. They can also affect parents' relationship with their child and how they cope with parenting, such as how stressful parents find parenting. They can also affect parenting styles, such as increasing harsh, inconsistent, and hostile parenting, and reducing warmer, more affectionate parenting. These processes are also posited to shape parents' relationships with their child, increasing parent-child conflict and reducing closeness. The sum of these negative impacts on parents are, in turn, believed to harm the social and emotional development of children (Conger et al., 2010; Masarik and Conger, 2017). These findings are consistent with a larger body of

literature on the relationship between parental and child or adolescent depression (see, for example, Goodman, 2020).

This FS model has been recently applied to understand how inadequate housing may shape children's wellbeing (Leventhal and Newman, 2010). Here, various dimensions of inadequate housing, such as insecurity, poor conditions, heating poverty, residential mobility, or overcrowding, are believed to act as additional sources of stress in people's lives, which negatively impact parents' mental health, parenting stress, parenting styles, interparent relationships, and parents' relationships with their children. These negative parental outcomes from inadequate housing then spill over to harm children's social and emotional development. In other words, inadequate housing is posited to have an indirect negative effect on children's wellbeing via its negative impact on parental wellbeing (see also Evans and English, 2002).

1.4 CURRENT STUDY

The aim of this study is to explore how inadequate housing impacts on families' wellbeing in Ireland. In particular, it draws on the 'family stress' model to examine: (a) how various dimensions of inadequate housing are linked with children's wellbeing; (b) how they are linked with parents' wellbeing; and (c) how any effect of housing on children's wellbeing might come through its impact on parents' wellbeing. This will build on prior research on inadequate housing in Ireland showing that children who grow up in inadequate housing have worse health and developmental outcomes, including educational outcomes, than their peers who do not (Laurence et al., 2023b). This study will expand upon this research by examining how the extent to which inadequate housing has a direct effect on child wellbeing or an indirect effect via parents' own wellbeing, an important evidence base for potential policy intervention. The study will also build on previous research to examine whether longer exposure to inadequate housing is associated with particularly negative familial outcomes, compared to previous work looking solely at how inadequate housing is associated with wellbeing at the time families are experiencing it. In other words, we will explore how cumulative exposure to inadequate housing can shape wellbeing outcomes.

To complement the analysis of how inadequate housing shapes families' wellbeing, the study will also examine what kinds of families are most at risk of experiencing prolonged experiences of inadequate housing. The report aims can be summarised as follows:

1. What characteristics of families, and factors in their lives, predict their risk of experiencing inadequate housing?
2. How does length of time experiencing inadequate housing affect different aspects of parental wellbeing?

3. How does length of time experiencing inadequate housing affect the social and emotional development of nine-year-old children, and can any effect be explained by the effect of inadequate housing on parental wellbeing?

1.5 DATA, MEASURES AND METHODS

1.5.1 Data

The study draws on four full waves of data from the 2008 Cohort of the *Growing Up in Ireland* (GUI) study. The 2008 GUI study is a cohort study following a nationally representative sample of all children born 2007-2008 in Ireland, alongside their primary and secondary caregivers. The waves analysed include Wave 1 carried out in 2008 when the study child was nine months old; Wave 2 at three years; Wave 3 at five years; and Wave 5 at nine years.³

While the GUI sample is nationally representative of children who were aged nine months old in 2008, there are several limitations that require noting. Firstly, while the GUI does contain families living in multiple family units, some members of the Travelling Community, and a small number of families in direct provision,⁴ it does not capture those experiencing the worst forms of housing disadvantage, such as those experiencing homelessness (who might be expected to have particularly poor wellbeing, see Focus Ireland, 2020). In addition, the number of these types of families in the data is often too small to analyse independently, preventing a detailed analysis of their situation. Secondly, families experiencing unstable housing, who move more frequently, are more likely to be lost between survey waves, leading to a lower representation of such families.

1.5.2 Measures

1.5.2.1 Inadequate Housing

As outlined, this report applies a multidimensional definition of inadequate housing, encompassing both housing conditions/situation (e.g. tenure, overcrowding, problems with the housing e.g. damp, heating) while also incorporating elements of neighbourhood quality (e.g. neighbourhood disorder). These cover many of the important dimensions of adequate housing developed from a rights-based approach, though not all aspects could be operationalised with the GUI data.⁵ Prior research had compared the effects of living in inadequate

³ Wave 4 was a short postal survey of primary caregivers; it did not collect detailed information on accommodation so is not used in this report.

⁴ Direct provision is a system used in Ireland since 2000 to accommodate and provide basic welfare to asylum seekers. Accommodation is mostly in communal settings.

⁵ In previous work (Russell et al., 2021) the authors identified six dimensions of access, affordability, security of tenure, cultural adequacy, quality, and location (which taps into access to services, safety and neighbourhood quality). Housing

housing on children's outcomes with the effects of the amount of time spent in inadequate housing (Laurence et al., 2023b). This research demonstrated that longer periods of exposure to inadequate housing can have more detrimental effects on wellbeing than shorter periods, and that length of time in inadequate housing was a stronger predictor than simply whether a child was living in inadequate housing at the time. Accordingly, we measure the length of time a family experienced each form of inadequate housing, captured by the number of GUI survey waves in which a family reported experiencing a particular type of inadequate housing.

The GUI data contain an array of indicators relating to families' housing situation and the communities they live in, capturing many of the indicators used in the inadequate housing literature. Table 1.1 summarises the range of housing inadequacy measures used in this report, as well as the waves of data used to construct the length of time dimension for the measures. Table A.1 in the Appendix outlines the distribution of households across these measures.

tenure was used as an indicator of access and security. There is no measure of housing affordability in the GUI data, though inability to heat the home may be tapping into the same underlying dimension. Inability to heat the home also taps into housing quality, as poorer quality dwellings are harder to heat. We note that this measure is also used as an indicator of fuel poverty in other research (Pillai et al., 2022; Tovar, 2021).

TABLE 1.1 INDICATORS OF CUMULATIVE HOUSING INADEQUACY USED IN THE ANALYSIS

Measure	Variable question/description (asked of Primary Caregiver)	Measurement Scale	Waves used in report
Tenancy experiences over time	Number of waves respondent was in an owned home	0 to 3	2, 3, 5
	Number of waves respondent was in a home rented from a local authority or voluntary body	0 to 3	2, 3, 5
	Number of waves respondent was in a home rented from a private landlord (including supported and unsupported tenants) ⁶	0 to 3	2, 3, 5
	Number of waves respondent was living with parents or partner's parents	0 to 3	2, 3, 5
(In)ability to keep HH warm over time	Number of waves that respondent reported being unable to keep the household warm ⁷	0 to 3	(1), 2, 3, 5
Experiences of unsuitable accommodation over time	Number of waves respondent reported experiencing unsuitable accommodation that...		
	...is too small	0 to 3	(1), 2, 3, 5
	...is not a child-friendly layout	0 to 3	(1), 2, 3, 5
	...features poor conditions (damp, draughts, leaks, etc.)	0 to 3	(1), 2, 3, 5
Homes without outdoor play space over time	Number of waves respondent lived <i>without</i> access to a garden or common space where you can let <child> out to play?	0 to 3	(1), 2, 3, 5
Experiences of neighbourhood disorder over time	Sum of neighbourhood disorder scores across available waves (1, 3 and 5)	3 to 12	1, 3, 5
Experiences of low neighbourhood social capital over time	Sum of low neighbourhood social capital scores across available waves (3 and 5)	2 to 8	3, 5
Frequency of moving house	Sum of responses to the question: Has the study child ever experienced... ...Moving house (between Waves 1 and 3) ...Moving house (between Waves 3 and 5)	0 to 2 ⁸	3, 5
Accessibility of amenities in local areas	Sum of the number of services/amenities available 'in, or within relatively easy access of, local area': (a) regular public transport; (b) GP or health clinic; (c) schools; (d) library; (e) post office; (f) social welfare office; (g) banking/credit union; (h) Garda station; (i) essential grocery shopping; (j) recreational facilities for a 9-year-old	0 to 10	5

Source: *Growing Up in Ireland, 2008 Cohort.*

Note: Waves in brackets (1) signify that the measure is also included in Wave 1, but these measures are used in Chapter 2 only. Wave 4 was a short postal survey of primary caregivers; it did not collect detailed information on accommodation so is not used in this report.

⁶ The data did not allow us to identify private renters in receipt of Housing Assistance Payments (HAP) and those not.

⁷ Within any wave, a household was categorised as struggling to heat their home if they answered yes to either of the following questions: (1) 'Have you ever had to go without heating during the last 12 months through lack of money? (I mean have you had to go without a fire on a cold day or go to bed to keep warm or light the fire late because of lack of coal/fuel?); or (2) 'Is the household unable to keep the home adequately warm because they cannot afford to'.

⁸ The measure captures if a family: 0 = never moved house; 1 = moved house either between birth and age five or between age five and age nine; 2 = moved house both between birth and age five *and* between age five and age nine.

While information was collected on the number of bedrooms, the number of other rooms in the house was unknown, so it was not possible to construct standard measures of overcrowding. However, parents responding their housing is ‘too small’ is likely to tap into crowding problems, as is living in a multi-generation household.

1.5.2.2 *Familial wellbeing*

As discussed above, the ‘family stress’ model posits that inadequate housing can negatively affect multiple dimensions of mental, social/relational, and physical wellbeing among parents. This, in turn, may spill over to harm the wellbeing of children. The GUI data contain a range of parental wellbeing indicators which we will employ in this study. Table 1.2 summarises the measures of parental and child wellbeing analysed.

Parents’ mental wellbeing is measured using the Short-form Center for Epidemiological Studies Depression Scale (CES-D), which measures a parent’s number of depressive symptoms and their frequency of experiencing them (Turvey et al., 1999). Parents’ physical wellbeing is measured by asking parents to self-report their current health. Regarding their social/relational wellbeing, we apply multiple measures that the ‘family stress’ model predicts act as pathways through which inadequate housing affects children’s wellbeing. The first measure is a six-item scale on the degree to which parents find parenting stressful, with higher scores indicating greater stress (Berry and Jones, 1995). The second set of measures related to three dimensions of ‘parenting style’, including the extent to which it is warm, hostile, or consistent; parenting styles characterised by high levels of warmth and control have been found to be associated with positive child outcomes (McNamara et al., 2020). Thirdly, parents’ assessment of the quality of the relationship with their child was used, including how conflictual it is and how close it is (Pianta, 1992). Lastly, we employ the Short 4-item form of the Dyadic Adjustment Scale (DAS-4) to capture the quality of a parent’s relationship with their partner (Sabourin et al., 2005). As discussed, the report primarily focuses on mothers’ wellbeing outcomes. Therefore, parenting measures and relationship quality measures are primarily as reported by mothers.

This report will focus on one aspect of children’s wellbeing: their social and emotional wellbeing (for insights into how inadequate housing is linked to children’s physical wellbeing and cognitive development see Laurence et al., 2023b).⁹ This is captured using the widely used Strengths and Difficulties total score (SDQ), assessing children’s psychological adjustment (combining emotional

⁹ Among children, more time spent in poor conditions e.g. damp is associated with more episodes of wheezing. More time in inadequately heated homes is associated with more episodes of wheezing, more accidents and worse general health. More time in social housing or grandparents’ home is associated with lower reading scores. More time in disadvantaged neighbourhoods is associated with more accidents.

symptoms, conduct problems, hyperactivity, and peer problems). This provides an effective overall measure of young children’s socio-emotional wellbeing, with higher scores indicating poorer wellbeing.

TABLE 1.2 INDICATORS OF FAMILIAL WELLBEING USED IN THE ANALYSIS

Measure	Variable question/description (asked of Primary Caregiver)	Measurement Scale	Higher scores =	Waves used in report ¹⁰
Child’s Wellbeing				
Strengths and Difficulties: Total Score	20-item instrument assessing children’s psychological adjustment (combining Emotional Symptoms, Conduct Problems, Hyperactivity, and Peer Problems)	0-40	Lower wellbeing	2, 5
Parental Wellbeing				
Self-rated health	In general, how would you say your current health is?	1 = Poor to 5 = Excellent	Higher wellbeing	2, 5
Depression symptomology: Total score	‘How often you have felt this way during the past week...?’ E.g. ‘I felt sad’, ‘I felt depressed’, ‘My sleep was restless’	0 to 24	Lower wellbeing	2, 5
Quality of relationship with partner (Dyadic Adjustment Scale - DAS-4)	Short 4-item form of the Dyadic Adjustment Scale (DAS-4) provides an assessment of dyadic satisfaction based on participants’ self-report and is used as a means of categorising relationships as either distressed or adjusted.	0 to 21	Higher wellbeing	2, 5
Child Parent Relationship Scale: conflictual	15-item scale assess the negative aspects of the relationship between either parent and child.	8 to 40	Lower wellbeing	2, 5
Child Parent Relationship Scale: closeness	15-item scale assesses the positive aspects of the relationship between either parent and child.	7 to 35	Higher wellbeing	2, 5
Parenting style: warmth	2-item scale to measure parenting style to capture how <i>warm</i> the parenting style is	1 to 5	Higher wellbeing	2, 5
Parenting style: hostility	2-item scale to measure parenting style to capture how <i>hostile</i> the parenting style is	1 to 5	Lower wellbeing	2, 5
Parenting style: consistency	2-item scale to measure parenting style to capture how <i>consistent</i> the parenting style is	1 to 5	Higher wellbeing	2, 5
Parental Stress Scale	Six-item Parental Stressors sub-scale - designed to assess both positive and negative aspects of parenthood.	6 to 30	Lower wellbeing	2, 5

Source: *Growing Up in Ireland, 2008 Cohort.*

¹⁰ Wave 4 was a short postal survey of primary caregivers; it did not collect detailed information on accommodation so is not used in this report.

1.5.3 Methods

To examine what families are most at risk of experiencing inadequate housing, and how inadequate housing is linked to familial wellbeing, we undertake regression modelling. This allows us to simultaneously test relationships while controlling for other background characteristics in people's lives. Details of the specific modelling approaches taken in each set of analyses are available in Appendix II.

1.6 REPORT OUTLINE

Chapter 2 will first explore what characteristics of families are associated with their risk of experiencing prolonged experiences of inadequate housing. Chapter 3 will then test how inadequate housing is linked with children's and parent's wellbeing, before examining whether the relationship between inadequate housing and children's wellbeing may be driven by its relationship with parents' wellbeing. Chapter 4 will conclude with a discussion of the findings and policy implications derived from the results.

CHAPTER 2

Which families are most at risk of experiencing inadequate housing?

2.1 INTRODUCTION

This chapter explores the characteristics of families, or factors in their lives, which are associated with a greater risk of experiencing inadequate housing, during the cohort child's early and middle childhood. In particular, we look at four different sets of characteristics and their associations with different dimensions of housing inadequacy (see Chapter 1 for the full list of inadequacy indicators).

TABLE 2.1 FAMILY AND HOUSEHOLD CHARACTERISTICS

Dimension	Characteristic	Waves used in measure
Demographic status	Nationality of child's mother and father	Measured at Wave 1
	Length of time mother has lived in Ireland (compared to being born in Ireland)	Measured at Wave 1
	N of waves as a lone parent HH (cf. two-parent HH)	1-5
	N of waves as a HH with 2+ children (cf. one-child HH)	1-5
	N of waves that mother had disability	1-5
Socio-economic status	N of waves that child had disability	2-5
	Mother's education	Measured at Wave 1
	N of waves mother (a) unemployed, (b) inactive (cf. employed)	1-5
	N of waves father (a) unemployed, (b) inactive (cf. employed)	1-5
Location	N of waves spent in higher (cf. lower) household income quintiles	1-5
	Lived in an urban or rural area	Measured at Wave 1
Family difficulties	Region	Measured at Wave 1
	Adverse childhood experiences (ACEs) (Waves 3 and 5): (a) child had a serious illness/injury, serious illness/injury of a family member, drug taking/alcoholism in the immediate family, mental disorder in immediate family, and conflict between parents	3 and 5
	N of waves parents were in trouble with Gardaí	1-5
Tenancy experiences over time	N of waves in: (a) social housing, (b) privately rented homes (including supported and unsupported tenants), and (c) living with a child's grandparents, compared to owning own home	1-5

Source: *Growing Up in Ireland, 2008 Cohort.*

As outlined in Chapter 1, our indicators of housing inadequacy measure the number of waves in the data in which a family experiences a certain form of inadequacy, e.g. the number of waves a family lives in a home that is unsuitable to their needs. The characteristics of families are also mostly measured as the number of waves in the data a family held a particular characteristic e.g. the number of waves a family was a lone-parent household.¹¹ Taken together, this chapter

¹¹ This excludes more fixed characteristics with little change over time such as migrant status or mother's highest qualification.

therefore tests how length of time spent experiencing inadequate housing is linked with the length of time a family held a particular characteristic. For example, how spending more time as a lone-parent household is associated with time spent in an unsuitable home. As outlined in Chapter 1, the primary motivation for this approach is that length of time spent in inadequate housing appears to be a stronger predictor of familial wellbeing than being in inadequate housing or not. Accordingly, we want to know what factors predict time spent in inadequate housing. Regression modelling¹² is applied, with full model results available in Appendix A2.1 (see Appendix II for full details on the approach).

2.2 ROLE OF DEMOGRAPHIC, SOCIO-ECONOMIC, AND AREA CHARACTERISTICS

Table 2.2 summarises the relationships between families' demographic, socio-economic and area characteristics, and their likelihood of experiencing different dimensions of housing inadequacy (derived from Model 3 for each housing outcome – see Appendix A2.1 – which constitutes the fully adjusted model in which all social, economic and demographic characteristics were modelled simultaneously).¹³ Therefore, Table 2.2 shows the relationship between a family's characteristics and housing inadequacy after accounting for the role of all other characteristics of the family. Separate models were conducted to explore how housing tenancy and adverse family experiences are associated with inadequate housing and are discussed below.

A family's household income is the most consistent predictor of inadequate housing. Families who spend more time in the lower quintiles of household income (compared to those in the top quintile) are more likely to experience all forms of housing inadequacy, including more time in housing they consider too small, not child friendly and with poor conditions, such as damp or draughts.¹⁴ Only whether a family's home has a garden/outdoor play space or how often they move house are not associated with their household income. Experiencing inadequate housing is much more common in urban areas. Families in more urban (compared to rural) areas spend longer in unsuitable homes (considered too small, not child friendly and with poor conditions e.g. damp/draughts), with no outdoor play space, and in areas with higher levels of disorder and lower social capital. They also spend more

¹² Different modelling methods are applied for different measures of housing inadequacy. See notes below table for further details.

¹³ Model 1 contains indicators of migration status, lone-parent status, number of children in the household, and disability status. Model 2 then adds in education, income, and employment status. Model 3 then adds in urban/rural status and region. Model 3 is therefore the fully adjusted model. This stepwise approach allows us to examine how associations between characteristics such as lone-parent status or migration status might be picking up their association with income or employment status. Model 4 then adds in Adverse Childhood Experiences and trouble with An Garda Síochána. Model 5 lastly includes household tenancy for models predicting other forms of housing inadequacy. See Appendix Table A2.1.

¹⁴ When mothers responded that their home was not suitable for their families' needs, they selected from several reasons why. We separately modelled how each characteristic is linked to the specific reasons a home is considered unsuitable and report the results in the text.

time in social housing or private rentals (compared to owning a home) and move home more frequently too. Inadequate housing is also most frequently experienced in Dublin compared to other regions (with a few exceptions).

More time spent as a lone-parent household is also closely linked to inadequate housing. Part of this can be explained by the socio-economic and locational characteristics of lone-parent households, such as their income or over-concentration in urban areas. However, even after accounting for these, lone-parent households spend more time in homes they struggle to adequately heat, in homes without a garden/outdoor play space, in higher disorder and lower social capital areas (although only significant at the $p < .1$ level), and experience more house moves. They also spend more time living in social housing, private rentals or with their child's grandparents than in an owned home.

On the other hand, families with two or more children in a household experienced more mixed housing inadequacy. They spend more time in homes they consider unsuitable for their family (particularly homes that are 'too small') and move more frequently. However, they are less likely to be in a home without a garden/outdoor play space, less likely to be in low social capital areas, and also spend less time living in privately rented accommodation or with their children's grandparents (compared to in an owned home).

Where there are disabilities in a family there is a higher likelihood of experiencing some forms of inadequate housing. Where a child has a disability, families spend more time in homes they consider inadequate to their needs¹⁵ (particularly 'not child friendly'), they move more frequently, and spend more time in areas with higher disorder, lower social capital and with fewer services and amenities e.g. grocery stores, libraries, or schools (although only significant at the $p < .1$ level). Where either the mother or father have a disability, families spend more time in unsuitable accommodation (particularly that is considered 'too small'), in homes they struggle to adequately heat, in areas with higher disorder, lower social capital and with fewer amenities, and experience more home moves. Families with a disabled father in particular spend more time in social housing (compared to an owned home), although less time living with their child's grandparents. Again, while part of these associations can be explained by the socio-economic and area characteristics of families, these associations show disability status still matters even after accounting for these.

¹⁵ It is not possible to determine from the data whether this pattern relates to poor quality housing more generally or to the lack of adaptation to the specific need of the child with a disability.

TABLE 2.2 DEMOGRAPHIC CHARACTERISTICS ASSOCIATED WITH EXPERIENCING MORE YEARS IN INADEQUATE HOUSING

Dimension of inadequate housing:	Unsuitable home	Struggle to heat HH	No garden/outdoor play space	N of moves	Social housing	Private rental	Living with child's grandparents	Disorderly areas	Low social capital areas	Fewer Local Services
Migration status of mother	n.s.	+ African - Asian	+ African	n.s.	- EU West + African	+ Other	- EU East, African + Asian, Other	- Asian	n.s.	n.s.
Migration status of father	+ African	+ Asian	+ EU East, African, Asian	+ EU East, Other	+ African	+ all migrant groups	- Asian	+ Asian	+ Asian	- African, EU West
Less time living in Ireland	n.s.	n.s.	+	+	n.s.	+	-	n.s.	+	n.s.
Lone-parent HH	n.s.	+	+	+	+	+	+	+	+	n.s.
HH with 2+ children	+	n.s.	-	+	n.s.	-	-	n.s.	-	n.s.
Parent(s) disability status	+ mother	+ mother	n.s.	+ mother	+ father	n.s.	- father	+ mother + father	+ mother	+ mother
Child disability status	+	n.s.	n.s.	+	n.s.	n.s.	n.s.	+	+	+
Lower mother's qualifications	n.s.	n.s.	n.s.	-	+	-	-	+	+	n.s.
<i>Cf. Employed</i>										n.s.
Parent(s) unemployed	n.s.	+ father	n.s.	+ mother	+ father	+ father	n.s.	n.s.	n.s.	n.s.
Parents(s) inactive	+ mother	n.s.	+ mother	+ mother	+ father	+ mother	n.s.	n.s.	n.s.	- mother
Lower HH income	+	+	n.s.	n.s.	+	+	+	+	+	-
Urban (cf. rural) area	+	n.s.	+	+	+	+	n.s.	+	+	-
Regional differences	Highest in Dublin	Highest in Midlands	Highest in Dublin	n.s.	Highest in South-West	Highest in Dublin	Highest in Dublin	Highest in Dublin	Highest in Mid-West	Highest in South-East

Source: *Growing Up in Ireland 2008 Cohort (Waves 1-5)*.

Note: Weighted samples to be representative. HH = household. N.S. = no significant differences between groups. + = significant positive association. - = significant negative association. The associations above are before models control for ACEs, trouble with Gardaí and tenancy type. Unsuitable housing, tenancy type, no garden/play space, and struggling to heat HH, modelled with negative binomial regressions; N of moves modelled with ordered logistic regression; disorderly and low social capital areas modelled with ordinary least-squares regression. Full model results can be found in Appendix Table A2.1.

Families' employment status also matters for inadequate housing; in particular, fathers' experiences of unemployment but mothers' experiences of economic inactivity. Where fathers spend more time unemployed, families spend longer in homes they struggle to keep warm, and in social housing and private rentals (compared to owned homes). Mothers' unemployment is linked to more residential mobility. Where mothers spend more time economically inactive, families move house more often, spend longer in homes without a garden/play space or in private rentals (compared to owned homes), and also in homes unsuitable to their families' needs ('too small', 'not child friendly' and with poor conditions e.g. damp/draughts). Fathers' inactivity is linked to living in social housing.

The migration status of parents is also linked to families' housing outcomes. Families where migrant mothers have spent less time living in Ireland tend to spend more time in homes without a garden/outdoor play space, in low social capital areas, in privately rented (compared to owned) homes, and tend to move more frequently, compared to mothers born in Ireland and migrant mothers who have been in Ireland longer. In addition, families with a migrant father from any region of origin spend more time living in privately rented (compared to owned) homes.

Certain migrant groups, however, are more likely than others to spend longer in inadequate housing. Compared to Irish nationals, parents that are African nationals are particularly exposed, spending more time in homes they struggle to heat, in unsuitable homes (particularly homes that are 'too small'), in homes without a garden/outdoor play space, and in social housing or private rentals (compared to owned homes) (although they tend to be in areas with a larger number of services, such as grocery stores, libraries or schools). Families where fathers are Asian nationals also experience higher degrees of inadequate housing, spending more time in homes they struggle to heat, without gardens/play spaces, in more disorderly and lower social capital areas, and in private rental accommodation. However, where mothers are Asian nationals, they spend less time in disorderly areas or in homes they struggle to adequately heat.

This difference between the experiences of Asian national mothers and fathers may reflect the fact that Asian men appear to have more disadvantaged labour market outcomes than Asian women (Laurence et al., 2023a). In particular, Asian women are more likely to be in higher occupations, work in larger firms, and have supervisory responsibilities, compared to Asian men. In addition, the gap in earnings between Asian men and Irish men is much larger than it is between Asian women and Irish women. These better labour market outcomes among Asian women could reflect their concentration in the health and social care sector (between 2011-2018, 50 per cent were employed in this sector). Asian men,

however, were more concentrated in the accommodation and food services sector, which is often associated with less well-paid, more precarious jobs.

Families where fathers are Eastern European also spend more time in homes without a garden/outdoor play space, in private rentals, and move more frequently, although families with Eastern European mothers spend less time in social housing. Again, part of the association between migrant status and housing outcomes is explained by the socio-economic and area characteristics of families. However, the associations outlined are after accounting for these characteristics.

Interestingly, after accounting for other demographic, socio-economic and area characteristics, mothers' education has a mixed relationship with housing inadequacy. Families where mothers have lower qualifications spend more time in social housing (compared to an owned home), and more time in areas with greater disorder and less social capital. However, they are also less likely to spend time in private rentals or in the homes of their child's grandparents (compared to an owned home) as well as to move house less frequently.

2.3 ADVERSE LIFE EXPERIENCES AND BEING IN TROUBLE WITH AN GARDA SÍOCHÁNA

This section looks at whether families experiencing severe difficulties in key domains of their lives are more likely to experience inadequate housing. These difficulties are measured in terms of adverse life events (ACEs) and encounters with the criminal justice system. As outlined above, and as we will explore and discuss in more detail below, housing inadequacy may directly shape people's likelihoods of experiencing certain ACEs. For example, inadequate housing may harm people's mental health or negatively affect partners' relationships. However, ACEs could also be linked to people's higher likelihoods of experiencing inadequate housing, such as where addiction issues or poorer mental health constrain people's ability to secure more adequate housing. In the proceeding section, we will explore how different ACEs predict people's experiences of inadequate housing. However, it is important to keep in mind that this analysis does not robustly test the causal direction of these associations. In all likelihood, effects are likely to operate in both directions (see Chapter 4 for full discussion).

When it comes to families' ACEs,¹⁶ having a 'mental disorder in the immediate family' is most closely associated with experiences of inadequate housing. Such families spend longer in unsuitable housing (including homes that are considered 'too small', 'not child friendly' and with poor conditions e.g. damp/draughts), in homes they struggle to heat, and live in more disorderly areas. They also move

¹⁶ Full model results can be found in Model 4, Appendix Table A2.1.

more often and spend longer in privately rented homes or living with their child's grandparents (compared to in an owned home). Addiction issues in the immediate family ('drug taking/alcoholism') are linked to families spending longer in unsuitable accommodation (homes that are 'too small' or 'not child friendly'), or disorderly and low social capital neighbourhoods, moving more often and spending more time in homes without a garden/outdoor play space. 'Conflict between parents' is linked to more time in unsuitable housing ('too small' and with poor conditions e.g. damp/draughts), more time in private rental homes and homes they struggle to keep warm.

In cases where there has been 'serious illness/injury of a family member', families spend more time living in unsuitable homes (especially 'too small'), privately renting, and in more disorderly areas. Meanwhile, families where the child has experienced 'serious illness/injury' spend more time in privately rented homes, in homes without a garden/outdoor play space, and move more frequently. Turning to contact with the Gardaí, families where parents have been in trouble with the Gardaí more often tend to spend more time in homes they struggle to heat, in disorderly neighbourhoods, and in social housing (compared to owning a home).

Importantly, the associations outlined above between ACEs/trouble with the Gardaí and families' experiences of inadequate housing are evident after we have accounted for their demographics, socio-economic status, and location. Therefore, it is not simply that ACEs may affect income, which affects inadequate housing experiences. As mentioned above, however, part of the association between ACEs and inadequate housing may also be a result of the latter affecting the likelihood of experiencing things like poorer mental health or parental conflict.

2.4 ROLE OF HOUSING TENANCY

Thus far we have treated families' tenancy type (owned home, social housing, private rentals, or living with their child's grandparents) as an indicator of inadequate housing. However, the types of tenancy people are in may also be closely associated with other dimensions of inadequate housing, such as suitability of a home or likelihood of having to move house. We therefore model how families' housing tenancies are associated with other dimensions of inadequate housing, while holding constant all other family characteristics, including ACEs (Model 5, Appendix Table A2.1). To note, the data do not allow us to distinguish between private renters in receipt of Housing Assistance Payment (HAP) and those not. Therefore, both groups are included in the private rental tenancy group.

Living in social housing for longer periods (compared to an owned home) is associated with more time in unsuitable housing (felt to be 'too small', 'not child

friendly' and with poor conditions e.g. damp/draughts), in homes families struggle to keep adequately warm, in disorderly and low social capital areas, in homes without a garden or outdoor play space, as well as moving more frequently. Compared to social housing, spending more time living in private rentals is somewhat less associated with homes being unsuitable (particularly that are 'not child friendly' and with poor conditions e.g. damp/draughts), but twice as strongly linked to moving home. It is also linked to more time in homes families struggled to warm, and more time in homes without garden/outdoor play space. More time in a child's grandparents' home is linked to unsuitable homes (primarily homes that are 'too small'), moving more often, but also spending less time in a home which families struggle to keep warm.

Living in social housing, private rentals and with a child's grandparents (compared to an owned home) are therefore associated with a higher likelihood of experiencing inadequate housing. We also find that part of the reason why families' demographic, socio-economic and area characteristics are associated with different dimensions of inadequate housing is also because these characteristics are linked to the types of tenancies people are likely to be in. For example, families' tenancies help explain part of why lower income households spend more time in unsuitable homes, areas with higher disorder and lower social capital, and in homes without a garden or outdoor play space. They also explain part of why families in more urban areas spend longer in unsuitable homes, why they move more, why they tend not to have access to outdoor play spaces, and why they live in more disorderly and low social capital areas. In general, when groups are over-represented in non-owned homes, this helps explain a good portion of why such groups move house more frequently, such as those out of work, certain migrant groups, or lone parents. Therefore, how family characteristics are linked to different housing tenancies is important for understanding part of why a family's characteristics are associated with other forms of inadequate housing.

2.5 DISCUSSION

This chapter revealed important differences in which types of families are most at risk of experiencing inadequate housing. Household income is, as expected, strongly associated with families' duration in inadequate housing. Not only are they more likely to be living in rented accommodation (social or private) or living with their child's grandparents, but they also spend more time in 'unsuitable' homes, struggle to adequately heat their households and live in more disorderly and lower social capital areas.

After accounting for families' income, however, several social groups are still more likely to experience inadequate housing. Lone-parent families are at particular risk. They are more likely to struggle to heat their household, have no outdoor play

space, to move home more frequently, to live in rented homes (social or private) or with their child's grandparents, as well as spend more time in more disorderly and lower social capital areas.

Families' disability status is also a key risk factor for inadequate housing. Where one or both parents have a disability, families spend more time in 'unsuitable' homes, they struggle to adequately heat their households, they move more frequently, live in social housing, and live in areas with higher levels of disorder, lower levels of social capital, and less access to amenities. In addition, where a child has a disability, families are also more likely to be in 'unsuitable' homes, move more frequently and live in areas with higher levels of disorder, lower levels of social capital, and less access to amenities.

Certain migrant groups are also at greater risk of prolonged exposure to inadequate housing. In particular, where either parent (but particularly fathers) has African nationality, or where a father has Asian nationality, families are more likely to experience multiple forms of inadequate housing, compared to where parents (but particularly fathers) have Irish nationality. In addition, mothers having moved to Ireland more recently is additionally associated with inadequate housing among migrants.

This chapter has also shown that, even after accounting for families' demographic and socio-economic characteristics, their experiences of adverse life events are also associated with a higher risk of experiencing inadequate housing. Of particular concern is that having a 'mental disorder in the immediate family' or addiction issues in the immediate family ('drug taking/alcoholism') are linked with spending longer living in 'unsuitable' housing, struggling to heat the household, living in rented accommodation, moving house more frequently, or living in disorderly neighbourhoods.

Housing tenancy is closely tied to other dimensions of inadequate housing. For example, families living in social housing, privately rented homes, or with their child's grandparents are all more likely to be in 'unsuitable' housing, in homes they struggle to adequately warm, as well as moving more frequently. Meanwhile the risk of experiencing inadequate housing is generally higher in urban areas and, even after accounting for this, higher for those living in Dublin.

CHAPTER 3

How is inadequate housing associated with families' wellbeing?

3.1 INTRODUCTION

This chapter examines how different dimensions of inadequate housing are associated with families' wellbeing. As outlined in Chapter 1, the 'family stress' model posits that experiences of inadequate housing can generate multiple sources of stress which can harm children's and parents' wellbeing; furthermore, it suggests that part of the reason why growing up in inadequate housing affects children's wellbeing is because it firstly negatively impacts parents' wellbeing, which, in turn, spills over to harm the wellbeing of their children. Therefore, this chapter explores:

- How growing up in inadequate housing is linked to children's social and emotional wellbeing;
- How duration of exposure to inadequate housing is linked to parents' mental, social/relational, and physical wellbeing;
- Whether inadequate housing indirectly affects children's wellbeing through its effect on parents' wellbeing.

This chapter will focus predominantly on the role of mothers' wellbeing, given studies suggest the link between mothers' and children's wellbeing is stronger during children's early years, as examined in this study (Brophy et al., 2021; Kahn et al., 2004; Ward and Lee, 2020). However, we will also refer to the interrelationships between housing inadequacy, fathers' wellbeing, and children's wellbeing.

Indicators of inadequate housing measures capture the length of time (number of survey waves) that a family experienced a particular form of inadequate housing (see Chapter 1 for number and timing of waves included in each indicator). All indicators of inadequate housing are modelled simultaneously to test which dimensions are most salient for children's SDQ in the presence of all other dimensions.

Various modelling strategies are applied, as discussed throughout the chapter. However, two key points of consistency are present in all models. Firstly, all mother and child wellbeing outcomes are measured at Wave 5 (when the child was aged nine years old). In addition, all models also contain a lagged measure of the wellbeing outcome being tested (measured at Wave 2 when the child was three years old). For example, models testing the association between duration of

exposure to inadequate housing and mother's depressive symptoms (measured at Wave 5) contain a lagged measure of mother's depressive symptoms (measured at Wave 2).

The second consistency across all models is that they control for a range of familial background characteristics, including gender of the child, household structure (lone-parent status, and number of children), nationality of mother and father, mother's education, mother's and father's disability status and employment status, household income quintiles, and urban/rural location. Background characteristics are measured at Wave 5.¹⁷

3.2 THE ASSOCIATION BETWEEN INADEQUATE HOUSING AND CHILDREN'S SOCIAL AND EMOTIONAL WELLBEING

To measure children's social and emotional wellbeing we use the Strengths and Difficulties total score (SDQ) when they are nine years old. The SDQ score is a 20-item instrument, assessing children's psychological adjustment (combining emotional symptoms, conduct problems, hyperactivity, and peer problems), where positive scores equate to greater difficulties (and thus poorer wellbeing). This measure is an effective indicator of nine-year-olds' overall wellbeing (Goodman and Goodman, 2009). Table 3.1 summarises how the various dimensions of inadequate housing are associated with a child's SDQ,¹⁸ based on an Ordinary Least Squares regression model, with full controls and a lagged SDQ measure (see Appendix II for full details on approach, and Table A3.1 for full results).

Children who spend more time growing up in a home that is 'too small' or that families struggle to keep warm have higher SDQ scores. Regarding the area-level indicators of inadequate housing, children who spend more time growing up in areas with higher levels of social/physical disorder or where mothers report lower levels of social capital have more difficulties than their peers who grow up in less disorderly, higher social capital areas. Interestingly, after accounting for other dimensions of inadequate housing, families' tenancy type is not associated with children's SDQ.

¹⁷ Exceptions to this include child's gender, measured at Wave 1.

¹⁸ Full model results can be found in Appendix Table A3.1.

TABLE 3.1 SUMMARY OF ASSOCIATIONS BETWEEN INADEQUATE HOUSING AND CHILDREN'S SDQ AT AGE 9

Dimension of Inadequate Housing	Association with SDQ
N of times moved house	++ among HH in lowest 5 th income - among HH in highest 5 th income
N of waves in HH with 'poor conditions e.g. damp'	n.s.
N of waves in HH 'too small'	+
N of waves in HH 'not child friendly'	n.s.
N of waves in social housing	n.s.
N of waves in private rental home	n.s.
N of waves living with child's grandparents	n.s.
N of waves struggled to adequately heat HH	++
N of waves without garden/outdoor play space	n.s.
Cumulative exposure to local disorder	++
Cumulative exposure to low social capital areas	+
Less access to local amenities	n.s.

Source: *Growing Up in Ireland, 2008 Cohort (Waves 2 to 5).*

Note: HH = household. +++/--- p<.001; ++/-- p<.01; +/-/- p<.05; (+)/(-) p<.10; n.s. = no significant differences between groups. Weighted, ordinary least squares regression with robust standard errors. Full model results available in Appendix Table A3.1.

Table 3.1 outlines how the number of times a child moved house is associated with their SDQ, but the direction of the association depends on a household's income. Among families in the lowest household income quintile, children who moved house have more social and emotional difficulties than their low-income peers who did not move house. However, among families in the highest household income quintile, children who moved house have fewer social and emotional difficulties than their high-income peers who did not move house. This suggests moving house may have a positive effect on the wellbeing of children from higher income backgrounds but a negative effect on children from lower income backgrounds.¹⁹

Therefore, when it comes to the association between moving house and children's SDQ, it may be that the impact of moving house may depend on a household's income level. Households with higher incomes may be moving to improve their situations, or be able to afford greater choice over where, and what type of homes, they move to; for example, moving to better homes, better environments, or better schools. Households with lower incomes may have to undertake more disadvantageous moves, potentially driven by eviction, with lower incomes affording less choice about where, and what type of home, they move to; for example, moving to poorer accommodation, worse areas, or areas with poorer schools. These different types of advantageous and disadvantageous moves may, in turn, be associated with better and worse wellbeing among families.

¹⁹ These models are already controlling for other forms of inadequate housing suggesting any benefits might be derived from factors not tested here.

3.3 THE ASSOCIATION BETWEEN INADEQUATE HOUSING AND MOTHERS' WELLBEING

As outlined in Chapter 1, the 'family stress' model posits that inadequate housing might shape multiple dimensions of mental, social/relational, and physical wellbeing among parents. Various indicators are therefore used to measure mothers' wellbeing, based on the available data (see Chapter 1 for full details). Mental wellbeing is captured with a depressive symptoms score. Physical wellbeing is captured with a self-rated score of mothers' health (where higher scores mean healthier). To measure social and relational wellbeing we examine: (a) the quality of the parent-child relationship (Pianta scores of how conflictual and close it is), parenting styles (scores for warmth, hostility, and consistency), and how stressful mothers find parenting; and (b) the quality of mothers' relationship with their partner, where one is present.

Table 3.2 summarises the associations between different dimensions of inadequate housing and mothers' wellbeing outcomes. Different types of regression models are used depending on the wellbeing outcome being tested (see notes below Table 3.2 and Appendix II for full details on approach). Models contain full controls and lagged outcome measures.²⁰

At the household level, spending more time in a home the family struggles to keep adequately warm is most closely linked with mothers' wellbeing. Mothers who experience this report more depressive symptoms, a more conflictual and less close relationship with their child, they have a more hostile parenting style, find parenting more stressful, report a poorer quality relationship with their partner, and have worse self-rated health. Importantly, this is after accounting for a range of socio-economic factors like families' incomes, employment status, tenure, and education, suggesting this role of heating poverty is not solely related to poverty but likely also related to the household condition itself.

The relationship between indicators of housing suitability (size, conditions, child friendliness) and mothers' wellbeing is less consistent. Mothers who live longer in homes that are 'too small' find parenting more stressful and report lower quality relationships with their partner (where present). Mothers who live longer in homes with 'poor conditions, e.g. damp/leaks' report more depressive symptoms.

²⁰ Table 3.2 (Appendix Table A3.2) takes a stepwise approach of adding in (1) moving home, (2) household-level indicators of inadequacy, (3) community-level indicators of inadequacy, and (4) tests for non-linearity. This allows us to partial out the relative importance of different forms of inadequacy, and how much associations between household-level indicators may be driven by community-level associations. This approach contrasts with Table 3.1 (Appendix Table A3.1), which modelled all inadequacy indicators simultaneously. This is because a more detailed analysis of the link between housing inadequacy and children's wellbeing is conducted in Laurence et al. (2023b).

TABLE 3.2 SUMMARY OF ASSOCIATIONS BETWEEN INADEQUATE HOUSING AND MOTHER'S WELLBEING OUTCOMES

Mother's wellbeing outcome:	Depression	Conflict with child	Closeness with child	Warm parenting style	Hostile parenting style	Consistent parenting style	Parenting more stressful	Partner relationship quality	Self-rated health
N of times moved house	n.s.	n.s.	- lowest 5 th HH income (+) highest 5 th HH income	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
N of waves in HH with 'poor conditions e.g. damp'	+	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
N of waves in HH 'too small'	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	++++	-	n.s.
N of waves in HH 'not child friendly'	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
N of waves in social housing	n.s.	n.s.	n.s.	n.s.	n.s.	--	---	n.s.	-
N of waves in private rental home	+++	n.s.	n.s.	n.s.	++	n.s.	++	n.s.	n.s.
N of waves living with child's grandparents	n.s.	n.s.	n.s.	n.s.	+++	--	n.s.	+++	n.s.
N of waves struggled to adequately heat HH	++++	++	-	n.s.	+++	n.s.	+++	--	---
N of waves without garden/outdoor play space	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Cumulative exposure to local disorder	++++	++++	---	_2	++	_2	++++	---2	_2
Cumulative exposure to low social capital areas	n.s.	+2	---	---	n.s.	n.s.	++	---	----
Less access to local amenities	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	+	n.s.	n.s.

Source: *Growing Up in Ireland, 2008 Cohort (Waves 2 to 5).*

Note: ++++ positive association at p<.001; +++ positive association at p<.01; ++ positive association at p<.05; + positive association at p<.10; ---- negative association at p<.001; --- negative association at p<.01; -- negative association at p<.05; - negative association at p<.10. Where ² is present this signifies a quadratic effect; n.s. = no significant differences between groups. HH = household. Regressions with robust standard errors. Depression modelled with negative binomial regressions; self-rated health modelled with ordered logistic regression; Pianta closeness, Pianta conflict, relationship quality, parenting styles, and parenting stress modelled with ordinary least-squares regression. Full model results available in Appendix Table A3.2.

Regarding families' tenancy type, not living in owned homes is linked, for the most part, with poorer wellbeing among mothers. However, different tenancy types are linked with different outcomes. Those living longer in privately rented homes (compared to an owned home) have more depressive symptoms, they find parenting more stressful, and have a more hostile parenting style. Mothers living longer in social housing have a less consistent parenting style and worse self-rated health,²¹ while mothers living longer with their child's grandparents have more hostile and less consistent parenting styles. This may stem from clashes between parents and grandparents on how children are parented or from children's adjustments to living with another family leading to inconsistent rules and less structure. However, there are exceptions. Interestingly, mothers living for longer with their child's grandparents (compared to an owned home) report better quality relationships with their partner (where present).²² It may be that couples with better quality relationships are more likely to move in with the child's grandparents, feeling, for example, they will be able to cope with such a transition. Alternatively, it may also be that a child's grandparents provide additional childcare opportunities, reducing some of the stresses involved in childrearing. We also see that mothers living longer in social housing (compared to an owned home) find parenting less stressful.²³

Community dimensions of inadequate housing are also linked with mothers' wellbeing. In particular, mothers living longer in areas with greater social and physical disorder exhibit poorer wellbeing across all outcomes. They have more depressive symptoms; they have less warm, more hostile, and less consistent parenting styles, and also find parenting more stressful; they report more conflict and less closeness with their child; they have a lower quality relationship with their partner (where present); and they also have worse self-rated health. These associations (e.g. for health, conflict/closeness with child) are not linear: there is a steep decline in outcomes as mothers spend more time in disorderly areas, but this decline slows at longer periods of time in disorderly areas. This suggests that after a certain amount of exposure to neighbourhood disorder its continued negative impact on mothers' wellbeing slows.

²¹ This association could be because social housing tenants must demonstrate a need for social housing (e.g. limiting illness) and this need may mean they are more likely to be found in social housing. However, these models are already controlling for disability status and a lagged measure of self-rated health, reducing the likelihood of this accounting for the observed relationship.

²² Fathers who spend more time living in their child's grandparents' home (compared to an owned home) also report a better-quality relationship with their partners. Information is not available on whether the family is living with the mother's parents or the father's parents.

²³ Interestingly, living longer in social housing (compared to an owned home) is associated with fathers reporting better quality relationships with their partner. This may be related to more informal community support, neighbour interaction and close bonds in some social housing estates. Models do control for local social capital; however, families in social housing may be more likely to live near extended family, providing additional support.

Living longer in areas with low social capital is also associated with poorer wellbeing outcomes. Mothers report greater conflict and less closeness with their child, a less warm parenting style, they find parenting more stressful, report a worse quality relationship with their partner and have worse general health. Finally, living in areas with greater access to everyday amenities, such as grocery shops or libraries, is largely unrelated to mothers' wellbeing, although it is associated with less stressful parenting.

Part of the reason why we find a link between living in an inadequate home (e.g. a house with poor conditions) and mothers' wellbeing can also be explained by the fact that inadequate homes tend to be located in poorer quality neighbourhoods, such as those with higher levels of neighbourhood disorder, which also affect mothers' wellbeing (see Model 3 results). For example, once we control for things like neighbourhood disorder or social capital, the strength of the link between living in homes with poor conditions and depression is reduced, while the strength of the link between living in social housing and general health, closeness with one's child, and a hostile parenting style are also reduced or rendered non-significant. In other words, part of the link between inadequate homes and families' wellbeing is because inadequate homes are often located in poorer quality neighbourhoods. Accounting for the adequacy of both people's homes and their neighbourhoods is therefore crucial to understanding their wellbeing.

Moving house is generally not associated with mothers' wellbeing after accounting for other dimensions of inadequate housing (see Model 4 results). Significant associations between moving house and more depressive symptoms, conflict with the child, and less warm parenting styles become non-significant once we control for household-level housing inadequacy. However, we previously observed the impact of moving home on children was dependent on families' level of household income. This is also the case for a mother's closeness with their child. Among households in the lowest income quintile, moving home is associated with less closeness, while among households in the highest income quintile moving home is associated with more closeness (Model 5, Appendix Table A3.2).²⁴

3.4 THE PATHWAYS THROUGH WHICH INADEQUATE HOUSING IS ASSOCIATED WITH CHILDREN'S SDQ: THE ROLE OF MOTHERS' MENTAL, SOCIAL/RELATIONAL, AND PHYSICAL WELLBEING

The results so far demonstrate how inadequate housing is negatively associated with a range of wellbeing outcomes among children and their mothers. As discussed in Chapter 1, the 'family stress' model posits that one pathway through which inadequate housing may harm children's wellbeing is through its effect on

²⁴ Additional analyses (not presented in this report) show that housing inadequacy is also associated with fathers' wellbeing outcomes, although mothers' wellbeing is more sensitive to inadequate housing.

parents' wellbeing. For example, inadequate housing may increase parents' levels of stress, which in turn, negatively impacts their children's wellbeing. In the following section, we test this model by looking at whether inadequate housing may impact children's SDQ via its impact on a range of mothers' mental, social/relational, and physical wellbeing outcomes.

To examine this question, we take a path analysis approach, modelled within a structural equation modelling (SEM) framework.²⁵ SEM models are composed of two sets of models. First, they test the association between spending longer living in inadequate housing (predominantly measured as the number of waves a family was experiencing inadequate housing) and mothers' wellbeing outcomes when their child is nine years old (at Wave 5 of the GUI data), while controlling for a lagged measure of mother's wellbeing at Wave 2 (age 3). Secondly, the models test how mothers' wellbeing outcomes (at Wave 5) are associated with children's SDQ (at Wave 5), while controlling for a lagged measure of children's SDQ (at Wave 2), alongside measures of housing inadequacy. Both sets of models control for the full range of family background characteristics applied previously. Modelling these two stages together allows us to undertake formal tests of whether housing inadequacy has a statistically significant indirect effect²⁶ on children's SDQ via their mothers' wellbeing (see Appendix II for full details on approach).

Table 3.3 summarises the observed indirect effects of inadequate housing on children's SDQ via their mothers' wellbeing. The first column of Table 3.3 shows what dimension of housing inadequacy we are looking at. The second column shows the association between the measure of housing inadequacy and an indicator of mothers' wellbeing; in particular, whether it is positively (\uparrow) or negatively (\downarrow) associated with it. The third column shows the association (positive or negative) between the dimension of mother's wellbeing in question and a child's SDQ (where higher SDQ values equate to more difficulties, and thus lower child wellbeing).²⁷ The fourth column shows the size and statistical significance of the

²⁵ SEM is a statistical modelling approach which allow us to simultaneously test all the relationships we think are operating between inadequate housing, mothers' wellbeing and children's wellbeing. For example, how housing inadequacy might shape parents' relationships with their child, and then how their relationship with their child might shape their child's wellbeing. SEM formally tests the statistical significance of these relationships: e.g. does housing inadequacy have a significant effect on children's wellbeing via its effect on mothers' relationship with their child.

²⁶ The indirect effect is the product of the regression coefficient of the relationship between the predictor (housing inadequacy indicator) and the mediator (maternal wellbeing indicator) and the regression coefficient of the relationship between the mediator the outcome variable (child's SDQ), We use the term 'indirect effects' here in line with the research literature on this modelling approach (e.g. Preacher and Hayes, 2008). However, it should be noted these do not imply that the only explanation for these associations is a causal one, as we discuss in the limitations section in the final chapter.

²⁷ Interestingly, all of the indicators of mothers' wellbeing are significantly and independently associated with children's SDQ (see Appendix Table 3.3). The exception is partner relationship quality. This does have a significant association with child SDQ when modelled alone but is rendered non-significant when modelled alongside all other mother wellbeing measures, suggesting its association with child SDQ likely operates through its relationship with other dimensions of mothers' wellbeing.

indirect effect of housing inadequacy on child's SDQ via its effect on their mother's wellbeing.²⁸ Positive values indicate that housing inadequacy leads to an indirect increase in SDQ via its effects on their mother's wellbeing.²⁹ As the indicators of housing inadequacy measure time spent experiencing each type of inadequate housing, then positive values can also be read as more time spent in inadequate housing leading to an indirect increase in SDQ via its effects on their mother's wellbeing.

²⁸ These indirect effects are calculated based on the model coefficients in Table A3.3 of the relationships between each indicator of inadequate housing and each maternal wellbeing indicator, and between each maternal wellbeing indicator and a child's SDQ (see footnote 18).

²⁹ Indirect effects are based on standardised model coefficients.

TABLE 3.3 SUMMARY OF INDIRECT EFFECTS OF INADEQUATE HOUSING ON CHILD'S SDQ VIA MOTHER'S WELLBEING

Dimension of Inadequate Housing	Effect of inadequate housing on mother's wellbeing	Effect of mother's wellbeing outcome on child's SDQ	Indirect effect of housing on child SDQ via mothers' wellbeing
N of waves in HH with 'poor conditions'	↑ Depression	↑ SDQ	+ 0.126*
N of waves in HH 'too small'	↑ Stressful parenting	↑ SDQ	+ 0.032**
N of waves struggled to adequately heat HH	↑ Less closeness with child	↑ SDQ	+ 0.106*
	↑ Depression	↑ SDQ	+ 0.067***
	↑ Hostile parenting style	↑ SDQ	+ 0.045*
	↑ Conflict with child	↑ SDQ	+ 0.033^
	↑ Stressful parenting	↑ SDQ	+ 0.022*
N of waves in private rental home	↑ Hostile parenting style	↑ SDQ	+ 0.029^
	↑ Depression	↑ SDQ	+ 0.022^
	↑ Stressful parenting	↑ SDQ	+ 0.013^
N of waves living with child's grandparents	↑ Hostile parenting style	↑ SDQ	+ 0.078*
N of waves in social housing	↓ Stressful parenting	↑ SDQ	- 0.02*
Cumulative exposure to local disorder	↑ Conflict with child	↑ SDQ	+ 0.083***
	↑ Less closeness with child	↑ SDQ	+ 0.018**
	↑ Stressful parenting	↑ SDQ	+ 0.016**
	↑ Hostile parenting style	↑ SDQ	+ 0.016*
	↑ Depression	↑ SDQ	+ 0.014**
Cumulative exposure to low social capital	↑ Less closeness with child	↑ SDQ	+ 0.026*
	↑ Stressful parenting	↑ SDQ	+ 0.012^
Less access to local amenities	↑ Stressful parenting	↑ SDQ	+ 0.01^
N of times moved house:			
Among HH in lowest quintile of income	↑ Less closeness with child	↑ SDQ	+ 0.291^
Among HH in highest quintile of income	ns	ns	ns

Source: *Growing Up in Ireland, 2008 Cohort (Waves 2 to 5).*

Note: HH = household. *** p<.001, ** p<.01, * p<.05, ^ p<.10. Weighted, generalised structural equation model with robust standard errors. Full model results available in Appendix Table A3.3.

We start by examining the role of housing suitability for a family's needs. The results suggest growing up in homes with 'poor conditions e.g. damp/leaks' leads to an indirect increase in children's SDQ because mothers in such homes have more depressive symptoms, and depressive symptoms are linked with more difficulties among children. Meanwhile, growing up in homes that are 'too small' leads to an indirect increase in children's SDQ because mothers in such homes find parenting

more stressful, and stress from parenting is linked with higher SDQ among children.³⁰

By comparison, the findings suggest that growing up in a home that families struggle to keep warm leads to indirect increases in children's SDQ through a range of pathways. In particular, mothers in such homes report less closeness and more conflict with their child, have a more hostile parenting style, find parenting more stressful, and also exhibit more depressive symptoms, which are all associated with more social and emotional difficulties among children.

Regarding a family's type of tenancy, growing up in privately rented (compared to owned) households is associated with an indirect increase in children's SDQ because mothers in such homes have a more hostile parenting style, find parenting more stressful, and have more symptoms of depression. Meanwhile, growing up in their grandparents' home (compared to an owned home) is associated with an indirect increase in children's SDQ because mothers in such homes report a more hostile parenting style.³¹ However, growing up in social housing (compared to an owned home) is associated with an indirect decrease in children's SDQ because their mothers in such homes find parenting less stressful.

Community-level dimensions of housing inadequacy also have a range of indirect effects on children's SDQ via mothers' wellbeing. Disorderly neighbourhoods are linked to higher child SDQ via a range of maternal pathways. Mothers living in such neighbourhoods report more conflict and less closeness with the child, find parenting more stressful, report a more hostile parenting style, and more depressive symptoms, which are all linked with higher child SDQ.³² Meanwhile, areas with lower social capital are associated with an indirect increase in children's SDQ because mothers in such areas report less closeness with their child and find parenting more stressful.³³ Similarly, growing up in an area with less access to amenities (such as libraries, schools, and grocery stores) is associated with an indirect increase in children's SDQ because mothers in such areas find parenting more stressful.

³⁰ In addition, growing up in a home that is 'not child friendly' has an indirect effect on children's SDQ, associated with higher SDQ scores, via lower feelings of closeness with the child among fathers.

³¹ Growing up in a child's grandparents' home is also associated with higher SDQ via fathers' reports of less closeness and more conflict with the child.

³² In addition, growing up in disorderly neighbourhoods has an indirect effect on child SDQ, associated with higher SDQ scores, via fathers reporting more conflict with their child; although fathers in such areas also report a somewhat warmer relationship with their child.

³³ Low social capital neighbourhoods also have an indirect effect on child SDQ, associated with higher SDQ scores, via fathers feeling less close to their child.

Table 3.3 also suggests part of the reason that children from lower income households who move house more frequently have higher SDQ is because mothers from lower income households who move more frequently report feeling less close to their child. However, we do not find evidence that the reason children from higher income households who move house have fewer difficulties can be explained by mothers' wellbeing. Instead, this may be linked more with improved opportunities, schools, or environments that moving home may bring for wealthier households, in turn reducing children's SDQ.

3.5 DISCUSSION

This chapter demonstrates that inadequate housing is associated with a range of poorer wellbeing outcomes among families. Children growing up in inadequate housing have poorer social and emotional wellbeing. Mothers experiencing different types of inadequate housing have worse mental health (depressive symptoms); worse physical health (poorer self-rated health); and worse social/relational wellbeing, such as more conflict and less closeness with their child, they find parenting more stressful, or have a poorer quality relationship with their partner. In addition, the longer the amount of time families spend in inadequate housing the worse their wellbeing outcomes are.

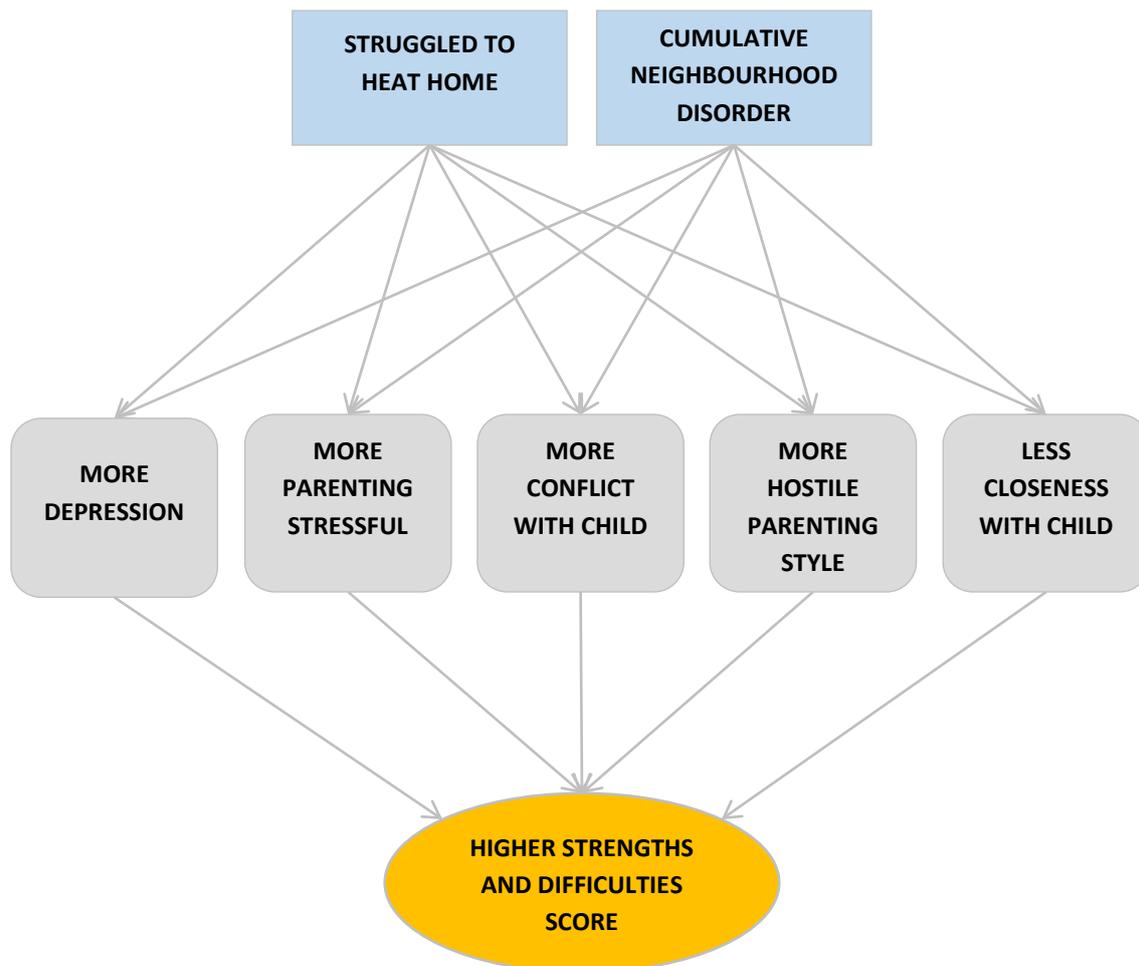
The chapter also provides evidence that the negative impact of inadequate housing on mothers' wellbeing may spill over to negatively affect the wellbeing of their children. In other words, part of the reason children growing up in inadequate housing have lower social and emotional wellbeing may be driven by the impact of inadequate housing on their mothers' wellbeing, which indirectly harms their own.

The most common pathway through which inadequate housing is linked with lower child wellbeing is the extent to which mothers find parenting more stressful in inadequate housing. Mothers experiencing inadequate housing tend to find parenting more stressful, which is linked with poorer child wellbeing. Other common pathways include mothers feeling less close to their child, exhibiting a more hostile parenting style, and having more depressive symptoms. Inadequate housing may also shape children's wellbeing via increasing mother's conflict with their child, although this pathway is less common.

Some dimensions of housing inadequacy are only linked to children's wellbeing through one or two maternal pathways, such as living in homes that are 'too small' (via depression) or have 'poor conditions' (via stressful parenting). However, the link between other dimensions of inadequate housing and child wellbeing come through a multitude of pathways. In particular, struggling to keep homes warm or disorderly neighbourhoods appear to affect children's wellbeing through less

closeness and more conflict between mothers and their child, finding parenting more stressful, a more hostile parenting style, and more symptoms of depression. This suggests these forms of inadequate housing trigger multiple different types of stressors which put pressure on families in varied ways, harming their wellbeing.

FIGURE 3.1 ILLUSTRATION OF THE INDIRECT EFFECTS THROUGH WHICH (1) STRUGGLING TO HEAT HOUSEHOLD AND (2) NEIGHBOURHOOD DISORDER ARE RELATED TO CHILD SDQ



Source: *Growing Up in Ireland, 2008 Cohort.*

Figure 3.1 provides a graphical illustration of the multiple indirect effects through which (a) living in a home which families struggle to keep warm, and (b) living in a neighbourhood with higher levels of disorder, shape children's SDQ. It demonstrates how both indicators of housing inadequacy are associated with higher depression, more stressful parenting, less closeness with the child, a more conflictual relationship with the child, and a more hostile parenting style. Each of these mothers' outcomes is associated with worse SDQ scores among children.

The results also show that certain forms of inadequate housing appear to have no overall³⁴ association with children's SDQ (as shown in Table 3.1) even though they have a significant indirect effect on children's SDQ (as shown in Table 3.3). This includes, for example, tenancy type, living in 'poor conditions', and accessibility of amenities in the local area. This is likely a result of low occurrences of certain forms of inadequacy housing among families ('poor conditions' and living with a child's grandparents)³⁵ and weak indirect effects of certain forms of inadequate housing on children's SDQ (private renting, social housing, and access to local amenities).³⁶ In these cases, we do not have enough evidence (given the data) to strongly suggest that tenancy type, living in 'poor conditions', and accessibility of local amenities have an overall effect on children's SDQ. However, if they do, the effects are likely due to the pathways identified in Table 3.3.

³⁴ By overall association we mean whether housing inadequacy predicts mothers' wellbeing in the absence of any mediators in the model (as tested in Table 3.2, Appendix Table A3.2).

³⁵ Only 3.8 per cent of families spent one wave or more living in their grandparents' home and only 4.6 per cent of families spent one wave or more in homes with 'poor conditions'.

³⁶ Both of these issues can lead to underpowered tests (Agler and De Boeck, 2017; Kenny and Judd, 2014).

CHAPTER 4

Conclusion

Inadequate housing is a multidimensional concept that incorporates aspects of the physical environment and the social environment. Having a home that is safe, warm, physically sound, not overcrowded, and embedded in a supportive community with access to necessary local services provides the foundation for family life. The report highlights which families experience inadequate housing and the implications that this has for parental and child wellbeing. The family stress model posits that a lack of resources exposes parents to stressors, which in turn has impacts on parenting, family relationships and child development. Drawing on data from four waves of the GUI '08 Cohort, we find evidence to support the family stress model in relation to the impact of inadequate housing on familial wellbeing.

Previous research has established that inadequate housing, broadly defined, has a direct negative influence on child health, wellbeing, and educational outcomes (see Laurence et al., 2023b, for full details). Here we find additional indirect pathways that link poor housing to children's socio-emotional wellbeing, as measured by their SDQ score. Mothers' wellbeing, depression, parenting style and relationships with other family members are strongly associated with time spent in inadequate housing, which spills over into poorer socio-emotional wellbeing among children.

4.1 WHICH FAMILIES EXPERIENCE INADEQUATE HOUSING?

Living in inadequate housing is much more common among low-income families, who are more likely to struggle to heat their homes, to live in housing that is unsuitable and to live in areas characterised by greater social disorder and lower social capital. Income is also a strong predictor of tenure type, with low-income households more likely to live in social housing, private rented housing or sharing with the child's grandparents. The latter group may include families who are part of the hidden homeless (for a further discussion, see Hearne and McSweeney, 2023).

Even holding income level (and other factors) constant, families headed by a lone parent, a parent born outside Ireland or with a disability all face a much higher risk of experiencing inadequate housing across multiple dimensions. This reflects a broader lack of resources than is picked up by current income alone. Housing inadequacy is more common among recent migrants, which may reflect both life course and period effects. A possible life course mechanism is that those who have lived in Ireland longer build up greater resources and that circumstances should also improve for newer arrivals over time. A possible period effect is that recent migrants have been more exposed to rapidly rising rental costs, in which case there

is less cause for an optimistic outlook. Some groups of migrants also report discrimination in accessing housing (McGinnity et al., 2017).

Families spending longer in social housing experience inadequate housing across indicators of suitability, physical housing quality and neighbourhood conditions. Compared to social housing, families living in private rented accommodation (including supported and unsupported tenants) are more likely to lack outdoor places to play and are twice as likely to move (most likely because of tenancy insecurity), though they are less likely to live in homes that are unsuitable or in areas that are disorderly and low in social capital. Compared to homeowners, private renters are also more likely to experience housing that is not sufficiently warm.

4.2 HOW DO DIMENSIONS OF HOUSING INADEQUACY INFLUENCE MATERNAL AND CHILD OUTCOMES?

The characteristics of the local area and the community clearly matter for parental wellbeing and parenting. Among the indicators of housing inadequacy, living in areas with greater levels of social disorder has the most frequent and strongest association with maternal outcomes. Mothers living in areas of higher social disorder experience higher levels of depression, greater conflict and less closeness with the study child, more hostile parenting, and more stressful parenting, each of which is linked to higher SDQ scores for the child. Living in a more disorderly neighbourhood also had a direct impact on mothers' quality of the relationship with their partner and their own self-rated health, but this had no indirect effect on the child. Mothers living for a longer time in an area of low social capital report less close and warm relationships with the child, more parenting stress, poorer partner relationship quality and worse self-rated health. In addition, part of the link between inadequate homes and families' wellbeing is because inadequate homes are often located in poorer quality neighbourhoods. Accounting for the adequacy of both people's homes and their neighbourhoods is therefore crucial to understanding their wellbeing.

Other dimensions of housing associated with negative maternal outcomes are being unable to heat the home adequately (depression, parenting style, parental stress, quality of partner relationship and self-rated health), and living in private rented accommodation (parenting style and parental stress). Living in a home that is too small is strongly associated with parenting stress but not the other maternal outcomes, which may be because relatively few households reported this problem.

When other family and housing characteristics are held constant, living in social housing compared to owning a home is not independently associated with

negative maternal outcomes except for consistent parenting, and mothers living in social housing report lower parenting stress.

Length of exposure to inadequate housing is associated with higher children's SDQ when living in households that are too small, living in inadequately heated homes, living in disorderly neighbourhoods, and living in areas with low social capital (as seen in Table 3.1), which was also shown in Laurence et al. (2023b). There is also evidence of indirect effects through maternal wellbeing. Parenting stress is the most common indirect pathway linking inadequate housing to lower child wellbeing. Mothers experiencing inadequate housing tend to find parenting more stressful, which is linked with poorer child wellbeing. Other common pathways include mothers feeling less close to their child, exhibiting a more hostile parenting style, and having more depressive symptoms. Inadequate housing may also shape children's wellbeing via increasing mother's conflict with their child, although this pathway is less common.

4.3 LIMITATIONS

While some of the hidden homeless, who are unable to form an independent home for their family, are included in the study, GUI is likely to miss many of those most socially excluded – such as families living in emergency accommodation. Recent government figures (Department of Housing, Local Government and Heritage, 2023) suggest that there were 1,916 families using homeless services in December 2023, including 3,962 children, which is the highest level of child homelessness since these records began in 2014. Those who face the greatest housing insecurity, who move home frequently, are also likely to be lost in a longitudinal study. The findings may therefore underestimate the effects of some of the most extreme forms of housing exclusion. Although GUI has a large sample size, several groups are not present in sufficient numbers to analyse separately, including families living in multiple family units, members of the Traveller and Roma communities, and families in direct provision. Such groups tend to be more disadvantaged in relation to accessing adequate housing and may experience worse familial wellbeing, and further research with larger sample sizes will benefit from analysing their particular experiences.

The report also focused primarily on the role of mothers' wellbeing outcomes. As mentioned above, we explored the link between housing inadequacy, fathers' wellbeing outcomes and children's SDQ, and found that the relationships were stronger for mothers' outcomes. In addition, information is not available on the wellbeing of fathers that are not living with the child. The fathers' results are available on request from the authors.

The GUI survey is not designed to collect detailed income information and does not contain data on receipt of Housing Assistance Payment (HAP). We therefore cannot distinguish between supported and unsupported renters in the private rented sector. The group of private rented tenants will therefore include households in widely different circumstances, and it is not possible to compare the housing conditions of those in receipt of HAP to other households. Despite this lack of disaggregation, we find that spending longer in private rented accommodation is associated with maternal depression, more parenting stress and more hostile parenting. The data also do not contain information on rental or mortgage costs, meaning we cannot directly test the impacts of housing affordability on families, although they are likely to be higher among lower income households facing more socio-economic difficulties. Recent research has highlighted that unsupported tenants in the private rented sector face the highest housing cost burden as a percentage of income (Disch and Slaymaker, 2023; Roantree et al., 2022), which may account for the negative maternal outcomes for this sector.

Among lone-parent families, information on the housing situation of the non-resident parent is not collected. Previous research shows that family breakdown is a significant risk factor for homelessness and that separated and divorced men, along with lone mothers, are over-represented in the homeless population (Russell et al., 2021). Poor housing conditions for this group, including lack of space for the child to stay, are likely to negatively impact family relationships and child wellbeing. The results are therefore likely to under-report the negative consequences of poor housing for separated households.

Some caution must be taken in solely interpreting the relationships observed as causal effects operating in one direction. When it comes to the factors in families' lives associated with inadequate housing, relationships might operate in both directions. For example, we find that families who have experienced mental health issues, or addiction issues, are more likely to experience inadequate housing. However, inadequate housing (as we suggest) may also trigger mental health problems. Meanwhile, stresses associated with inadequate housing could trigger issues with addiction. Accordingly, caution should be taken in interpreting these relationships as solely operating in one direction. They likely operate together and may mutually reinforce one another.

Some caution should also be taken in interpreting the link between inadequate housing and familial wellbeing. Regarding the relationship between housing and mothers' wellbeing, the possibility exists that poorer wellbeing outcomes may affect people's housing outcomes. For example, higher depression may affect access to the economic and social resources which can help mothers secure more adequate housing (as suggested above). Including a lagged measure of mothers'

wellbeing goes some way to accounting for this, but the possibility remains. In addition, some other, unmeasured factor in people's lives may affect both mothers' wellbeing and the adequacy of their housing, which drives the apparent housing-wellbeing link. Similar issues exist with the indirect effects of housing on children's wellbeing via the wellbeing of their mothers. Potentially, some unmeasured characteristic of families could be linked both to families' wellbeing and housing outcomes. Or inadequate housing may affect both mothers and children directly, and not affect children indirectly via mothers' wellbeing. Alternatively, poorer housing outcomes may affect children's social and emotional problems, which in turn puts stresses on the mother-child relationship and triggers worse wellbeing among mothers. Again, the reality is that these relationships are complex and operate in a multitude of directions. Future research with more finely-grained temporal data will be able to better unpack the causal ordering of the relationships.³⁷

Given the number of associations tested in the report, there is also a higher risk of capturing false positive results, where an association is statistically significant by chance, rather than representing a substantive association. Several methods can be applied, such as the Bonferroni correction or Benjamini-Hochberg correction, to reduce the likelihood of false discoveries (although these approaches can be relatively conservative and lead to a higher rate of false negatives). Future research replicating the report's findings will therefore be critical to further validate the results given these risks.

Lastly, our measures of neighbourhood characteristics are based on mothers' self-reports of the levels of disorder or social capital in their local areas. This is because the GUI does not currently have identifiers that allow us to link families in the GUI to data (e.g. from the Census) on the actual levels of poverty, crime, or social infrastructure. This increases the risk that mothers' perceptions of their neighbourhood might also be shaped by their wellbeing, as well as affect it. For example, higher depression may lead to more negative perceptions of where someone lives, potentially biasing the observed relationships between inadequate communities and wellbeing. Allowing families in the GUI to be matched to data on the characteristics of people's communities, such as the Census or Pobal Deprivation Index, will provide more robust tests of the relationship between communities and families' outcomes (see, for example, Laurence and Smyth, 2023).

³⁷ An alternative approach to strengthening our confidence that any impacts of housing inadequacy are likely causal is to undertake two- or three-wave fixed effects modelling. However, the relatively high degree of housing inadequacy stability over time means such tests produce very conservative estimates (Laurence et al., 2023). In addition, not all housing inadequacy measures were available in every wave which similarly reduces the prevalence of within-person variance in measures.

4.4 POLICY IMPLICATIONS

The research findings underline the importance of adequate housing for maternal, child and family wellbeing. Access to housing is clearly essential and the consequences of homelessness for children, adults and family life are profound and likely to be long-lasting (Mayock et al., 2008; O'Brien et al., 2022; Ombudsman for Children, 2019; Stablein and Appleton, 2013; Waldron et al., 2001; Focus Ireland, 2020). However, meeting housing needs also depends on addressing other dimensions of housing adequacy. Ireland is committed to ensuring citizens have access to adequate housing as a signatory of the International Convention on Economic, Social and Cultural Rights. The study findings have implications for a number of policy issues, including the interrelationship of housing supply and quality, the need for family and neighbourhood support, and the role of financial supports.

4.4.1 Housing supply and quality

While the focus of the research is on housing quality, this cannot be fully separated from the issue of supply. The lack of availability of social housing or of rental properties within the HAP rent bands means that families are more likely to live in homes that are unsuitable for their needs. There has been a significant shift away from local authorities and approved housing bodies providing social housing, towards the provision of housing support such as HAP to families that live in accommodation rented from private landlords. The results here suggest that spending longer in both local authority housing and private rented housing are associated with spending longer in inadequate housing across a variety of dimensions.

In the private rental sector, the findings point to the need to ensure adequate outdoor playing space and warmth. Properties in the private rental sector are more poorly insulated and less energy efficient than matched properties in the owner-occupied sector (Petrov and Ryan, 2020). Yet take-up of the current retrofit/insulation schemes is low in this sector as the costs accrue to the landlord and the benefit to the tenants, which is known as the 'split incentive' problem (Department of Communications, Climate Change and Environment, 2019). Designing schemes that address these incentives is important for family wellbeing as well as environmental reasons. Levels of inadequate heating among local authority residents point to the ongoing need for retrofitting and for new social housing to be well-designed and energy efficient. Estate-wide upgrades are more efficient than individual upgrades and should be rolled out as a priority.

4.4.2 Family and neighbourhood support

The importance of a safe community and local social networks for the wellbeing of mothers and children is clear. Measures to support community groups and to

enhance local social capital are therefore important. Family support policies in Ireland have moved towards a greater focus on early prevention as well as integrated service provision through child and family support networks (Tusla, 2013a; 2013b; DCEDIY, 2023). However, there have been ongoing resourcing challenges (McGregor and Devaney, 2020) as well as a lack of parental awareness of available supports (Rochford et al., 2014; Connolly et al., 2017). The new national strategy for children and young people (DCEDIY, 2023) reiterates the commitment of *Supporting Parents* (DCEDIY, 2022) to developing a more coherent framework of family supports with clearer pathways for families. However, current parenting support, including from voluntary groups, often focus on pre-school children (Connolly et al., 2017).

The evidence presented here shows the case for supporting networks for parents with school-going children, not least the positive impact that living in communities with more social capital appears to have for families' wellbeing. Supports for the parents of school-age children are often channelled through the home-school-community liaison element of the DEIS programme for schools serving socio-economically disadvantaged communities (Weir et al., 2018), and will therefore miss those in poorer economic circumstances but in non-DEIS schools. Groups that are embedded in the local community would complement school-based services. There are also structural barriers to building social networks. Frequent mobility is detrimental to the formation of local relationships, and policies to increase security of tenure for those in the private rented sector are therefore relevant to prevent involuntary moves.

As well as the provision of general supports for families, the findings on maternal and child wellbeing suggest the need for mental health supports for those living in inadequate housing and unsafe neighbourhoods. Research has already pointed to the level of unmet need for community mental health services in the population as a whole (Brick et al., 2020). Policy (see Government of Ireland, 2020) has rightly moved towards emphasising a continuum of mental health support so early intervention to support those experiencing housing-related stress would yield benefits in relation to demand for more intensive mental health supports. The close link between maternal and child wellbeing suggests the potential to expand access to family-focused mental health services (see McGilloway et al., 2022).

4.4.3 Income supports

Although the survey data were collected prior to the recent period of energy inflation, many families, particularly in social or private rented accommodation, struggled to adequately heat their homes. The findings suggest the need for supports for upgrading (retrofitting) as well as targeted financial assistance to meet energy costs. Studies of energy deprivation among all households, rather than just those with children, show higher levels of energy deprivation among those in rental

accommodation (Barrett et al., 2022), with recent inflation in energy prices disproportionately impacting on lower-income households. One-off measures, including assistance towards fuel costs, have been of greater benefit to lower-income households (Doolan et al., 2022), but research suggests a role for better targeting of supports towards families on social welfare payments and low-income working households (Barrett et al., 2022).

The results point to the importance of wider income supports. Inadequate resources, captured by income level but also longer-term exclusion from the labour market among people with a disability and lone parents, are a strong predictor of inadequate housing which in turn is associated with parental stress and child socio-emotional difficulties. There is a wide body of evidence in Ireland and elsewhere that people with a disability require a higher level of income to secure the same standard of living as other groups (Cullinan and Lyons, 2014; Indecon, 2021). Having a disability might require housing adaptations (which may be more difficult to secure in private rented housing) or involve additional cost to ensure warmth; or the wider costs of disability may simply mean there is less income to spend on housing. Additional supports to counteract these extra costs are needed to ensure that this group can secure adequate housing. This might take the form of grants for adaptations, or adjustments to benefits, or to means assessments for benefits.

Lone parents are another structurally vulnerable group and are disadvantaged across nearly all of the indicators of housing adequacy. These families also face additional challenges to reach the same standard of living as others on a similar income because of the need for one parent to combine both breadwinning and care roles. Analysis of policy options by the ESRI found that adding a second-tier targeted child benefit payment to lower income families would be a highly effective way of lifting children and their families out of poverty (Roantree and Doorley, 2023) which, along with other measures, could help address housing inadequacy linked to low income.

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APPENDIX I

TABLE A.1 NUMBER OF WAVES SPENT IN INADEQUATE HOUSING – VARIOUS INDICATORS

	%	Unweighted N
N waves unsuitable (max 3: W2 W3 W5)		
0	78.0	5,969
1	14.0	997
2	5.6	377
3	2.5	145
N waves cannot heat home		
0	75.1	5,847
1	16.1	1,094
2	5.7	355
3	2.3	140
4	0.8	43
N moves (max 2)		
0	70.8	5,415
1	22.1	1,741
2	7.1	537
N waves no outside space (max 4)		
0	93.9	7,108
1	4.7	305
2 or more	1.4	86
N waves in social housing		
0	83.3	6,541
1	4.6	274
2	3.1	181
3	3.7	204
4	5.3	267
N waves private rented		
0	77.1	5,726
1	7.1	559
2	5.2	352
3	5	366
4	5.6	464
N waves parents house (max 4)		
0	95.1	7,103
1	3	225
2 or more	1.9	139
N waves low social capital (max 2 W3 W5)		
0	69.8	5,132
1	22.9	1,504
2	7.4	483

Contd.

TABLE A.1 NUMBER OF WAVES SPENT IN INADEQUATE HOUSING – VARIOUS INDICATORS

	%	Unweighted N
N waves neighbourhood disorder (max 3: W1 W3 W5)		
0	65	5,133
1	19.3	1,397
2	9.8	621
3	5.8	301
Total	100.0	7,488*

Source: *Growing Up in Ireland 2008 Cohort.*

Note: * Total unweighted N differ across variables due to missing cases

APPENDIX II

Methods and modelling

This appendix outlines the modelling approaches undertaken in each section and an explanation of the results found in the Data Appendix.

NOTES FOR SECTION 2.2 (TABLE 2.2; APPENDIX TABLE A2.1)

Different modelling approaches (with robust standard errors) are applied for different outcomes of housing inadequacy. Length of time experiencing unsuitable housing, tenancy type, no garden/play space, and struggling to heat HH are all over-dispersed count measures with an excessive number of zeros, where a zero is highly unlikely to represent a 'never' zero, given everyone has at least the possibility of experiencing one of the dimensions of housing inadequacy over the period. Accordingly, we apply negative binomial regressions. Coefficients represent the log of expected counts of the response variable with a one-unit increase in the predictor variable. Number of moves is modelled with ordered logistic regression, given it is a categorical variable capturing 0 moves, 1 move (either between ages 9 months and 5-years-old *or* 5-years-old and 9-years-old) or 2 moves (both between 9-months and 5-years-old *and* 5-years-old and 9-years-old), and the coefficients are the log odds. Length of time in disorderly and low social capital areas are modelled with ordinary least-squares regression with robust standard errors, given the summed variables are continuous. Model 1 contains migration status, lone-parent status, number of children in the household, and disability status. Model 2 then adds in education, income, and employment status. Model 3 then adds in urban/rural status and region. Model 4 then adds in Adverse Childhood Experiences and trouble with An Garda Síochána. Model 5 lastly includes household tenancy.

The relationships reported in Table 2.2 are based on the third model (M3) of the five models run for each indicator of housing inadequacy. This third model includes all social, demographic, and economic covariates modelled simultaneously, including migration status, lone-parent status, number of children in the household, parental/child disability status, education, employment status, income, urban/rural status and region of residence. However, it does not include adverse childhood experiences (ACEs) and trouble with Gardaí, nor tenancy status. Modelling these variables simultaneously therefore allows us to better identify which characteristics are the most salient for predicting housing inadequacy after adjusting for other characteristics. ACEs and trouble with the Gardaí are excluded from these estimates given that some of the associations between people's social, demographic and economic situation and their housing inadequacy may come through how their situation shapes their ACEs and trouble with the Gardaí.

NOTES FOR SECTION 3.2 (TABLE 3.1; APPENDIX TABLE A3.1)

Ordinary Least Squares (OLS) regression modelling is applied with robust standard errors as children's SDQ is a continuous variable. Model tests how indicators of time spent experiencing housing inadequacy (Wave 2 to Wave 5) are associated with children's SDQ outcome at Wave 5, adjusting for a lagged measure of children's SDQ at Wave 2 (Appendix Table A3.1).

NOTES FOR SECTION 3.3 (TABLE 3.2; APPENDIX TABLE A3.2)

Models 1-4 for each maternal wellbeing outcome test how indicators of time spent experiencing housing inadequacy (Wave 2 to Wave 5) are associated with each maternal wellbeing outcome at Wave 5, adjusting for a lagged measure of maternal wellbeing at Wave 2 (Appendix Table A3.2). Model 1 includes all social, economic, and demographic covariates as well as number of times a household moved over the period. Model 2 then includes household-level indicators of housing inadequacy. Model 3 then includes community-level indicators of housing inadequacy. Model 4 then tests whether there are any non-linear associations between indicators of housing inadequacy and maternal wellbeing outcomes. For the household-level indicators this involves including the measures as categorical variables, comparing the effects of being in inadequate housing in 'one wave' or 'two or more waves' with never experiencing that dimension of housing inadequacy. For the community-level indicators this involves including quadratic terms to test for non-linearity.

Different modelling approaches (with robust standard errors) are applied for different outcomes of maternal wellbeing. Depression is modelled with negative binomial regressions due to depression being an over-dispersed count measure with an excessive number of zeros. Coefficients represent the log of expected counts of the response variable with a one-unit increase in the predictor variable. Self-rated health is modelled using ordered logistic regression and the coefficients are the log odds. Pianta closeness, Pianta conflict, relationship quality, parenting styles, and parenting stress are modelled with ordinary least-squares regression with robust standard errors.

NOTES FOR SECTION 3.4 (TABLE 3.3; APPENDIX TABLE A3.3)

Section 3.4 undertakes a path analysis approach, modelled within a structural equation modelling (SEM) framework. SEM models are composed of two sets of models. First, they test the association between spending longer living in inadequate housing (predominantly measured as the number of waves a family was experiencing inadequate housing) and mothers' wellbeing outcomes when their child is nine years old (at Wave 5 of the GUI data), while controlling for a lagged measure of mother's wellbeing at Wave 2. Therefore, Models 1-11 (Appendix Table A3.3) test how indicators of time spent experiencing housing

inadequacy (Wave 2 to Wave 5) are associated with each maternal wellbeing outcome at Wave 5, adjusting for a lagged measure of maternal wellbeing at Wave 2. Secondly, the models test how mothers' wellbeing outcomes (at Wave 5) are associated with children's SDQ (at Wave 5), while controlling for a lagged measure of children's SDQ (at Wave 2), alongside measures of housing inadequacy. Model 12 therefore tests how each maternal wellbeing outcome is associated with children's SDQ at Wave 5 in the presence of each housing inadequacy indicator (time spent between Waves 2 and 5), adjusting for a lagged measure of children's SDQ at Wave 2 (Appendix Table A3.3). Both sets of models control for the full range of family background characteristics applied previously. Modelling these two sets of models together within an SEM framework allows us to undertake formal tests of whether housing inadequacy has a statistically significant indirect effect on children's SDQ via their mothers' wellbeing. For the purposes of testing indirect effects linear regressions are applied.

The indirect effects calculated within the SEM framework are reported in Table 3.4. An indirect effect is the product of the regression coefficient of the relationship between the predictor (housing inadequacy indicator) and the mediator (maternal wellbeing indicator), and the regression coefficient of the relationship between the mediator the outcome variable (child's SDQ). The regression coefficients used in their calculation are present in Appendix Table A3.3. The indirect effects cannot be compared substantively between one another given different variable types.

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