

Healthy housing for Scotland

A briefing paper setting out the
fundamental link between housing
and public health

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Contents

Headline messages.....	2
1. Purpose of this paper.....	4
2. Housing as a social determinant of health.....	5
3. Affordability.....	6
4. Accessibility.....	12
5. Housing quality and conditions.....	13
6. Low carbon, climate resilient and healthy homes.....	17
7. Inclusive approaches for all communities.....	20
8. Health and homelessness.....	23
9. Mental health.....	24
10. Place and community.....	26
11. Opportunities for health and housing collaboration.....	28
Conclusion.....	32
References.....	33

Headline messages

This paper draws on the current evidence to set out the mechanisms and pathways for how housing can influence health and wellbeing. It is intended to support implementation of 'Housing to 2040' which sets out the Scottish Government's vision for the housing system over the next 20 years. The paper is underpinned by 28 key messages which include the following.

Opportunities for health and housing collaboration

- There are opportunities for colleagues across public health and housing to work together to maximise the potential housing has for promoting health and wellbeing. There are tools and resources to support this collaboration.

Affordability

- Living in poverty is known to be damaging for health and is one of the main causes of health inequalities. Housing affordability is a key driver of poverty and inequality in Scotland.
- Increasing the supply of affordable housing is key to addressing housing need and tackling child poverty.
- Low-income households are more likely to be impacted by fuel poverty, and living in cold and damp homes is associated with higher mortality rates and cold-related ill health.

Accessibility

- People with disabilities face significant unmet housing need and over 31,000 disabled people are projected to experience unmet housing need by 2024.

Housing quality and conditions

- There is a range of ways in which housing can be modified which can improve health outcomes for households, including improved energy efficiency, removing hazards in the home and increasing provision of affordable housing.

- In Scotland in 2019, 2% of households lived in overcrowded accommodation which is associated with stress, anxiety and the spread of respiratory illness.
- The cost of poor housing to the NHS varies but the risk to health and provision of treatment could likely be avoidable if improvements were made.
- Several factors make homes less comfortable, including limited indoor space and no access to private or shared outdoor space.
- All homes should have access to outdoor space, daylight and broadband.

Low carbon, climate resilient and healthy homes

- We need to understand more about the impact of energy-efficient design of housing on indoor air quality.
- Flooding can exacerbate or cause anxiety and depression among those whose homes are flooded and those who experience disruption.
- The benefits of action to tackle climate change must be shared widely and costs associated with action must not unfairly burden those least able to pay.

Inclusive approaches for all communities

- The impact of housing on health and wellbeing for communities with experience of exclusion and marginalisation is complicated and not equal.
- People experiencing homelessness have catastrophically poor health outcomes.

Mental health

- Financial, spatial and relational factors are associated with housing insecurity and mental health.
- A good tenant–landlord relationship is positive for tenancy sustainment, as is the ability of tenants to make their house a home and make choices about it.

Place and community

- Place-based approaches can improve the quality of homes and neighbourhoods and support the health and wellbeing of communities.

1. Purpose of this paper

In March 2021, the Scottish Government published 'Housing to 2040'¹ which sets out a vision for housing in Scotland and a route map to get there by 2040. The route map aims to deliver the Scottish Government's ambition for 'everyone to have a safe, good quality and affordable home that meets their needs in the place they want to be'. The Scottish Government also published a position statement² to accompany 'Housing to 2040' which presents evidence about equality and inequality in the housing system for different population groups. The position statement includes a section on housing and health which describes the fundamental relationship between housing, health and wellbeing.

This briefing paper is intended to complement the Housing to 2040 route map and associated position statement by outlining in greater detail the pathways and mechanisms for how housing can influence health and wellbeing. This paper focuses on evidence which relates to priority themes of the Housing to 2040 vision including:

- the topics of housing affordability
- accessibility
- quality and conditions
- low carbon, energy efficiency and climate resilience
- marginalised communities
- homelessness and health
- mental health
- place and communities.

The final section of this paper presents an overview of local housing policies and illustrates opportunities for health and housing colleagues to collaborate.

It is anticipated this briefing will be a tool for housing colleagues who will be developing and implementing policy and carrying out associated impact assessments. It also aims to support public health colleagues who are working locally, regionally and nationally with housing colleagues in the process of designing, implementing and evaluating policy decisions.

The evidence drawn on for this briefing paper has been published in the public domain and includes academic papers, policy analysis, case studies from practice

and examples of lived experience. This paper is not a systematic evidence review but provides an overview of available evidence which is relevant to the breadth of Housing to 2040.

2. Housing as a social determinant of health

Estimates vary, but it is widely accepted that health is largely shaped by factors beyond access to health care.³ The factors that influence health – the social determinants of health – which include housing, are connected intricately to the other determinants, for example employment, education and income.⁴

The World Health Organization has highlighted poor housing conditions as one of the mechanisms through which social and environmental inequality translates into health inequality, which further affects quality of life and wellbeing.⁵ The right to an adequate standard of housing is therefore inextricably linked to the right to the highest attainable standard of health.⁶

To improve physical health and mental wellbeing and tackle health inequalities in communities across Scotland we need to ensure everyone has access to a warm, dry, safe, affordable home which meets their needs. However, it is also important to recognise that the causal links between the built environment and health are often complex.⁷ Housing can influence health directly through condition, security of tenure, overcrowding and suitability for inhabitants' needs. Wider aspects of housing that influence health indirectly include affordability and poverty, housing satisfaction, choice and control, social isolation, access to key services such as health care, and environmental sustainability.

Table 1 below illustrates the pathway between housing and health.

Table 1: Wider aspects of housing and how these influence health

Housing conditions	Risk factors	Health conditions
<ul style="list-style-type: none"> • Thermal efficiency • Weatherproofing • Heating affordability • Ventilation • Space • Food storage, preparation and cooking facilities • Quality of work and floor surfaces • Soft furnishings • External appearance • Neighbourhood environment 	<ul style="list-style-type: none"> • Damp, mould, cold, humidity • Fuel poverty • Dust mites and infestations • Cleanliness • Overcrowding • Concerns about crime and antisocial behaviour 	<ul style="list-style-type: none"> • Cardiorespiratory disease • Digestive health • Allergies and skin conditions • Headaches, migraine • Stress, anxiety • Depression and mental ill health

Reproduced from ScotPHN. 50,000 affordable homes: A health impact assessment.

Edinburgh: ScotPHN; 2017. www.scotphn.net/wp-content/uploads/2015/11/2017_06_27-FINAL-SHIAN-50-000-New-Homes-HIA-Report-ES.pdf

3. Affordability

Key messages

- Living in poverty is known to be damaging for health, and is one of the main causes of poor health and health inequalities.
- Housing affordability is a key driver of poverty and inequality in Scotland. In 2020, 20% of households were living in poverty after housing costs.
- Increasing the supply of affordable housing is key to addressing housing need and tackling child poverty.

- Low-income households are more likely to be impacted by fuel poverty, and living in cold and damp homes is associated with higher mortality rates and cold-related ill health.

3.1 Poverty and housing

Living in poverty is one of the main causes of poor health and health inequalities. Increases in the cost of housing, declines in net supply and in-work poverty mean that housing affordability remains a key driver of poverty in Scotland. It is estimated that 19% of Scotland's population (1.03 million people each year) were living in relative poverty after housing costs in 2017–20.⁸

In 2019 poverty rates in Scotland were relatively lower than in England and Wales, which has been attributed to lower social rents and a boost to the supply of social housing in Scotland.⁹ That said, while many social landlords have frozen rent increases for 2021–22 in response to COVID-19, prior to that increases in household income have not kept pace with increases in social rents.¹⁰

Rising social rents¹¹ and private rents,¹² growing demand for affordable housing and the impact of welfare reform¹³ continue to contribute to 'housing-cost-induced poverty' (i.e. poverty after housing costs), meaning more households live in relative and absolute poverty in Scotland every year.^{9,11}

3.2 Housing costs

For many people, housing costs are a major factor in determining not only the degree of control over where they live and the quality of the home that they can afford, but also the amount of money that they have available to support their health and wellbeing after paying housing costs. Housing costs are influenced by rent and mortgage costs, fuel costs, the age and condition of the property, location, household size and household composition.¹⁴ High housing costs can reduce a household's access to other health-promoting factors such as nutritious food or leisure activities. Similarly, the availability of affordable housing in a particular area can constrain or facilitate access to good work.¹⁵

3.3 Housing tenure

The profile of housing tenure in Scotland has changed considerably since the turn of the century with more households now living in the private rented sector,^{16,17} where rents are less affordable, particularly across the central belt.¹⁸ In 1999, 5% of households rented privately which by 2018 rose to 14% or 340,000 households.¹⁷

Demand for affordable housing also continues to rise with 158,439 applications recorded on local authority or common housing register housing lists in 2019, a 0.4% increase on 2018.¹⁹ Research estimating the need for affordable housing in Scotland has concluded that 53,000 affordable homes are required between 2021 and 2026 to reduce housing need and tackle child poverty.²⁰

In 2020, research into the impact of social housing revealed investment in social housing reduces poverty, improves health and drives economic growth.²¹ Findings from this report demonstrate that good-quality, warm, energy-efficient and affordable housing helps to tackle fuel poverty and may help to improve physical and mental health and wellbeing. Social housing providers were also found to be important community anchors well placed to support anti-poverty strategies leading economic and social cohesion at a community level. Additionally, findings from this report included that increasing the affordable housing supply in rural areas helps sustain fragile communities experiencing depopulation.

Research carried out before the COVID-19 pandemic showed that few private-rented-sector tenants reported being aware of their legal rights, such as those contained in Private Residential Tenancies^a and being able to challenge their landlord at the First Tier Tribunal.^{b,22} Research has concluded that changes are

^a On 1 December 2017 a new type of tenancy – the private residential tenancy – came into force, replacing the assured and short assured tenancy agreements for all new tenancies. This tenancy is open-ended, provides more predictable rents and protection for tenants against excessive rent increases, includes the ability to introduce local rent caps for rent pressure areas and provides comprehensive and robust grounds for repossession that allow landlords to regain possession in 18 specified circumstances.

^b The First-Tier Tribunal for Scotland - Housing and Property Chamber was formed to deal with determinations of rent or repair issues in private sector housing.

needed to deliver improvements in the provision of advice to meet the needs of different private-rented-sector tenants and that various options of advice to resolve problems with tenancies will be key to raising standards in the sector.²³

3.4 Fuel poverty

There is a longstanding body of evidence describing the link between cold and damp homes with higher mortality rates and cold-related ill health, particularly for vulnerable groups.²⁴ Low-income households are more likely to be impacted with a number of causal factors, such as stress and anxiety due to worrying about bills/debt, choices being made between heating and eating, and behaviour such as only heating part of a home, leading to stress and isolation.^{25,26}

In 2020, research into lived experience of fuel poverty revealed that for those in the most difficult circumstances, being unable to heat their homes to the level they would like was having negative impacts on their physical and mental health and that of their families.²⁷ Cold-related mortality is likely to remain the largest weather-related driver of mortality in Scotland into the 2050s without further action to reduce fuel poverty.²⁸

The Fuel Poverty (Targets, Definition and Strategy) (Scotland) Act 2019 defines what is meant by fuel poverty.^{c,29} Many people live in fuel poverty, with those on low incomes, people with disabilities, older people and those living in rural or island communities particularly affected. Between 2018 and 2019, rates of fuel poverty increased in remote, rural areas (from 33% to 43%), increasing the gap between rural and urban areas where the rate is 29%. A number of factors influence this, including rural housing is typically larger and more likely to be detached, and those living in rural locations experience limited fuel source options.³⁰

^c The 2019 Act established a new two-part definition whereby a household is considered fuel poor if: after housing costs have been deducted, more than 10% (20% for extreme fuel poverty) of their net income is required to pay for their reasonable fuel needs; and after further adjustments are made to deduct childcare costs and any benefits received for a disability or care need, their remaining income is insufficient to maintain an acceptable standard of living, defined as being at least 90% of the UK Minimum Income Standard (MIS).

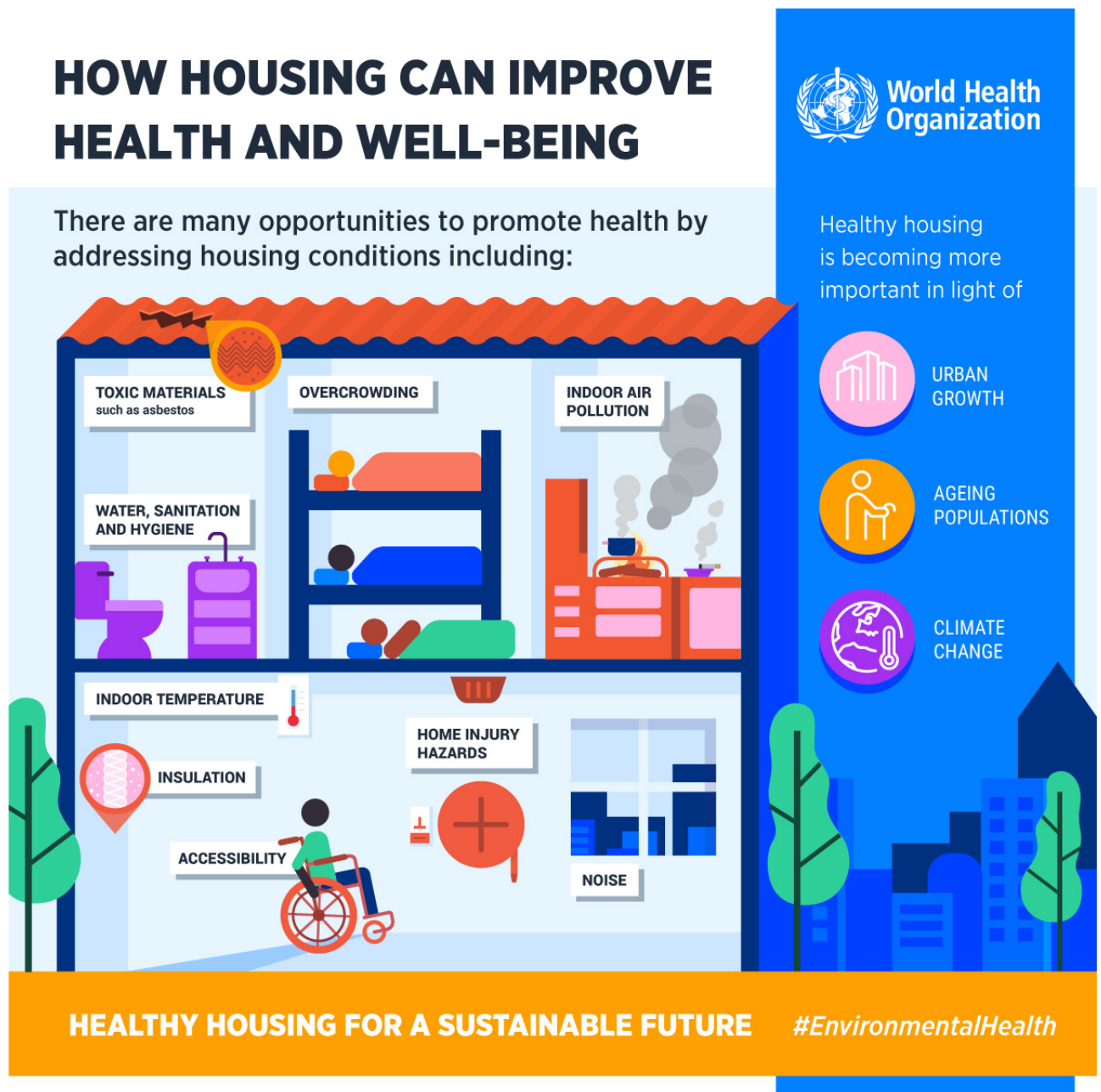
Drivers for fuel poverty include income, fuel costs, energy usage and energy efficiency of our homes.³¹ In 2019, rates of fuel poverty in the housing association (39%), local authority (36%) and private rented sectors (36%) were similar. In comparison, 12% of those with a mortgage are assessed to be fuel poor. These are similar rates to those in 2018.³⁰ Fuel poverty can lead to households experiencing energy arrears³² or self-disconnecting their energy supply, and in 2019 housing associations identified there was a 61% rise in their tenants doing so to cut costs.³³

3.5 Wider economic considerations

Not only does building good-quality housing contribute to fulfilling the right to health and the right to adequate housing, it also generates economic opportunities. A Shelter Scotland report³⁴ concluded there are economic benefits from investing in building 30,000 houses for social rent between 2021 and 2026, and that doing so will result in positive outcomes for health, wellbeing, educational attainment and climate change, as well as immediately creating employment opportunities in the wake of the COVID-19 outbreak.

Sections 4 to 6 consider accessibility, housing condition and climate change respectively. Figure 1 from the World Health Organization⁵ summarises these concerns for health.

Figure 1: How housing can improve health and wellbeing



Reproduced from World Health Organization. How housing can improve health and wellbeing. Geneva: WHO. Undated. Licence CC BY-NC-SA 3.0 IGO.

www.who.int/phe/infographics/sustainable-development/en/

4. Accessibility

Key messages

- People with disabilities face significant unmet housing needs.
- The proportion of accessible housing as a share of all housing varies between local authorities.
- Over 31,000 disabled people are projected to experience unmet housing need by 2024.

4.1 Accessible design

Poor accessibility to their house puts disabled people and elderly people at risk of injury, stress and isolation.⁵ In 2018, almost 10,000 disabled people in Scotland were on housing waiting lists. In 2019, the Scottish Government introduced a new target for wheelchair-accessible housing for local authorities.³⁵ However, evidence from 2018 shows that accessible housing is limited, with 0.7% of Scottish local authority housing, and 1.5% of housing association housing being accessible for wheelchair users.³⁶ In 2018, provision of 'specialist' housing (including accessible housing) as a share of all housing varied between local authorities from less than 10% in some areas to over 20% in others.³⁷

The design of homes including size and accessibility is a key consideration. For example, space for wheelchairs, design to enable adaptability and space to play, work and learn all significantly contribute to improved health and wellbeing. The need for specialist and adapted housing will increase as our population ages and people are living independently or are looked after for longer at home.³⁸ Increasing use of technology and digital service delivery is also important in design.³⁹

4.2 Future projections

Projections indicate that over 31,000 people with disabilities will experience unmet housing need by 2024. Housing design, funding for adaptations and allocation processes would contribute to addressing this housing need.⁴⁰ There are around 90,000 people in Scotland currently living with dementia, and this number is expected to increase significantly as the population continues to age.

A Housing and Dementia Framework,⁴¹ an Inclusive Living Evidence Review,⁴² and guidance on standards for accessible housing⁴³ have recently been published. These developments are anticipated to support improvements in access to housing which meets the needs of people with disabilities.

4.3 Adaptations

When considering adaptations which enable people to live at home, 41% of Scottish local authorities delivered an adaptation within eight weeks of a decision, although some disabled people could wait for six months or more. These findings further demonstrate unmet housing need for people with disabilities.⁴⁴

5. Housing quality and conditions

Key messages

- There are a range of ways in which housing can be modified which can improve health outcomes for households. This includes improved energy efficiency, removing hazards in the home and increasing provision of affordable housing.
- In Scotland in 2019, 2% of households lived in overcrowded accommodation which is associated with stress and anxiety and the spread of respiratory illness.
- Estimates of the cost of poor housing to the NHS vary but the risk to health and provision of treatment could likely be avoidable if improvements were made to poor housing.
- During lockdown research reported several factors making homes less comfortable, including limited indoor space and no access to private or shared outdoor space.

5.1 Housing conditions and health

Housing conditions can expose people to a number of health risks. Structurally deficient housing increases the likelihood that people slip or fall, increasing the risk of injury.⁵ A Health Impact Assessment of housing improvement⁴⁵ identified several

risks our homes pose to health. These risks included home injury risk, indoor air quality, mould and radon. It also concluded that noise and ineffective soundproofing causes stress and isolation for people who have high sensitivity to noise.

Furthermore, a comprehensive, expert review of the risks and health hazards of domestic buildings in the UK identified indoor air quality, hygrothermal conditions, radon, house-dust mites, environmental tobacco smoke and fires as being among the highest health risks from housing.⁴⁵

In 2019, levels of disrepair were similar to 2018, with 2% of properties failing the tolerable standard. The tolerable standard is a minimum standard of condition all housing must meet for it to be fit for humans to live in.⁴⁶ Levels of damp and condensation were similar to 2018, with 91% of properties free from any damp or condensation, or, in other words, nearly one in ten households still faced having damp or condensation. Damp conditions cause mould and there is a relationship between damp, mould and asthma.⁴⁷

In 2006, research found that more than one million children in England lived in bad housing, with this posing risks for their health in childhood and early adulthood.⁴⁸ This is likely to be similar for children living in poor housing in Scotland.

The NHS is treating people for health conditions which may be caused or exacerbated by poor-quality housing. Risks to health and provision of treatment could likely be avoidable if improvements were made to poor housing. Estimates of the cost of poor housing to the NHS vary.⁴⁹ One estimate was that 20% of UK homes were 'non-decent homes' and this cost the NHS 2.5 billion per annum. We do not have data for Scotland, but the Centre for Aging Better estimate that the cost of non-decent homes in England to the NHS is around £1.4 billion per annum for all ages. They concluded repairing homes would save the NHS resources and immeasurably improve the health and quality of life for millions of people, now and in the future.⁵⁰

5.2 Overcrowded housing

Crowded housing increases the risk of exposure to infectious disease.⁵ In 2019, around 51,000 or 2% of Scottish households lived in overcrowded

accommodation.^{d,30} It is not known what proportion of people from these households that are overcrowded are from ethnic minority backgrounds. However, in 2013 ethnic minority households in Scotland were more likely to experience overcrowding, with 11.8% of ethnic minority households being overcrowded compared to 2.9% of white households.⁵¹

Overcrowding can reduce privacy, limit space for children to study or play and can be a source of stress and anxiety.⁵² Evidence that shows overcrowding increases the spread of respiratory conditions and increases the risk of childhood infection and asthma.⁵³ Research from during the COVID-19 pandemic also associates a lack of enough space in the home with people not getting enough sleep.⁵⁴

5.3 Modifiable features of housing

In 2017, Public Health England published a review of evidence for spatial planning which included a focus on housing quality and conditions.⁷ This set out the modifiable features or aspects of housing which contribute to health and wellbeing which, in turn, achieve a range of outcomes related to improved health and wellbeing.

Improving the energy efficiency of homes and removing hazards in the home can have positive impacts on health outcomes, including improved general health and mental health, reduced mortality and reduced health inequalities among low-income groups, notably older adults and those living with pre-existing health

^d If two people of the opposite sex have to sleep in the same room, the accommodation will be defined as overcrowded unless they are: married, in a civil partnership or living together, or one or both of them is under 10 years old.

The number of people who should live in a home depends on the number of rooms, the size of the rooms and the ages of the people who live there. Rooms that are counted include living rooms and bedrooms (but not the kitchen or bathroom). There are also 3 situations where overcrowding is allowed - natural growth, temporary overcrowding and licensed overcrowding.

conditions. There is also evidence to show improved social outcomes for older adults.

There are links between increasing the provision of affordable housing for groups with specific needs and increased engagement with health services, reduced substance misuse and co-occurring mental health issues, improved general health for adults with HIV/AIDS, improved outcomes for homeless people and improved quality of life.

There are also associations between increased provision of affordable and diverse housing and improved physical activity, improved safety perceptions among low-income groups and improved mental health for older adolescents and adults.

Further to this, research in Scotland has highlighted other examples which have been shown to also have a positive impact on mental health:

- improved roofing, insulation and cladding
- improved security
- new kitchens and/or bathrooms, chosen by tenants.^{55,56}

5.4 Satisfaction with housing design

The Living Homes Standard⁵⁷ identified the key themes of affordability, decent conditions, space, stability and neighbourhoods as being the attributes that make housing acceptable. One third of homes in Scotland did not meet people's expectations. The main gaps lie in decent conditions and in affordability. For those who are young, rent or have lower incomes the gap is much larger.

Research into how comfortable households found their homes during lockdown highlighted aspects which made people less comfortable with their homes.⁵⁸ Tenure, living in a flat rather than a house, living in a medium- or high-rise building, properties built since 2010, small internal space and no access to private or shared outdoor space were all factors which made people feel less comfortable.

6. Low carbon, climate-resilient and healthy homes

Key messages

- We need to understand more about the impact of energy-efficient design of housing on indoor air pollution.
- Flooding can exacerbate or cause anxiety and depression among those whose homes are flooded and those who are not flooded but who experience disruption.
- Action to tackle climate change must also consider how the benefits are shared widely and how costs associated with action do not unfairly burden those least able to pay.

6.1 Preparing our homes for climate change

The 2019 Committee on Climate Change report 'UK housing: Fit for the future?' highlighted the need for the housing sector to improve the quality, design and use of homes across the UK to address the challenges of climate change.⁵⁹ This includes being both low carbon and adapted so homes are resilient to the impacts of climate change. Actions to ensure our homes are low carbon and climate resilient can have health co-benefits.

The impacts of climate change and climate action can place a disproportionate burden on some populations.⁶⁰ The Just Transition Commission highlighted the need for climate change action benefits to be shared and for costs not to unfairly burden those least able to pay.⁶¹ Where health and equity are not considered in developing climate action there is the potential for unintended harms to health and health equity.

6.2 Low carbon

Action to achieve net-zero carbon in the housing sector includes energy efficiency measures and low-carbon heating systems. There are potential health co-benefits from these actions. For example, home improvements which increase warmth and energy efficiency, such as installing, upgrading and repairing central heating, insulation and double glazing, can improve health and wellbeing especially if

targeted at those with low incomes and with existing poor health.^{14,62,63} The pathways to health are complex. For example, home improvements can contribute to:

- financial savings and an increase in disposable income and reducing stress
- improved warmth and physical environment contributing to improved cardiovascular and respiratory health
- enriching the meaning of homes for occupants contributing to improve mental and social outcomes.

A range of actions will be needed to retrofit existing homes and build new homes to achieve the net-zero carbon target by 2045. The Existing Homes Alliance identified a pathway for achieving this which they argued will also reduce fuel poverty and have associated health and wellbeing benefits. This pathway includes increased investment in a Just Transition, 'whole-house' retrofits and innovative approaches to low-carbon heat, all of which could contribute directly and indirectly to influence health and wellbeing.⁶⁴

However, the health impacts of housing improvements to increase energy efficiency cannot be assumed. For example, reduction in energy consumption and therefore savings are not always as great as expected. This may be due to householders taking the opportunity to increase heating in their homes – known as the rebound effect.⁶⁵ Poor installation and sub-optimal use of heating systems can reduce energy savings. Potential unintended negative impacts on health such as increased indoor temperatures in the summer and reduced indoor air quality with indoor air pollutants when there is no compensatory ventilation have also been found.^{66,67} Health impacts have been found to include negative impacts on respiratory conditions (including lung cancer), cardiovascular disease and allergic symptoms.⁶⁸ Installation of appropriate ventilation can reduce these risks, however, systems do not always perform to design standards or are not used properly.^{69,70,71} Increasing our understanding of these pathways can help inform the implementation of energy-efficiency measures to maximise the health and equity impacts.

6.3 Climate resilient

In Scotland, one in eight homes are at risk of flooding to some extent.⁷¹ Mental health is likely to represent the greatest health burden from flooding for those whose homes are flooded as well as those who are not flooded but experience the disruption.⁷²

The changing climate has implications for where we build homes and how we design, retrofit and maintain them. Appropriate retrofitting, use of climate-sensitive designs for new property and good maintenance can improve resilience and ability to adapt and reduce the potential effects of climate change on health and health inequalities.

In the absence of adaptation measures, heat-related deaths are estimated to increase to up to 13,000 per year from a current annual baseline of around 2,000 deaths. Household air conditioning will be a necessary adaptation measure to extreme heat in some settings. However, the majority of air conditioning units also contribute to hydrofluorocarbon emissions (a potent greenhouse gas). Passive cooling measures with no or low emissions, such as increasing shade, generating air movement and reflecting radiation, will be adequate to reduce temperatures in many settings. Passive cooling measures should be factored into retrofit and building standards to help mitigate against future uptake of air conditioning units and restrict their usage to all but the hottest days. To maximise the benefits to health these measures should be prioritised in inner city neighbourhoods in which more people are exposed to the urban heat island effect.⁷³

Climate resilience for housing cannot, however, occur in isolation. For example, the benefits of positive changes to individual properties may be insignificant when compared to climate impacts affecting communal spaces, shared infrastructure and facilities. The provision of quality green infrastructure for example can reduce the risk of flooding and overheating of the built environment.

7. Inclusive approaches for all communities

Key messages

- The impact of housing on health and wellbeing for communities with experience of exclusion and marginalisation is complicated and not equal.
- Understanding housing issues and associated intersectionality for marginalised communities through participative, inclusive approaches is fundamental to identifying and addressing housing need.
- This section builds on the equality impact assessment published in the Scottish Government's Housing to 2040 Equalities Position Statement.²

7.1 Marginalisation and intersectionality

Particular marginalised groups experience inequalities in major determinants of health and wellbeing, including housing, often over generations. Understanding these housing issues and associated intersectionality for marginalised communities through participative, inclusive approaches is fundamental to identifying and addressing housing need.⁷⁴ Recognising that marginalised communities experience housing issues in complex and interrelated ways, the remainder of this section considers some examples of housing issues and is not intended to provide a comprehensive overview.

7.2 Lesbian, gay, bisexual, transgender + (LGBT+) people

In 2007, the LGBT Housing Project Report⁷⁵ reported findings from focus groups that participants experienced verbal abuse and intimidation from neighbours or local residents. As a way of minimising feeling unsafe in and around their homes, participants acknowledged they would keep their sexual orientation hidden. They expressed fear about drawing attention to themselves by reporting intimidation, verbal abuse or graffiti. Some participants expressed low confidence that housing associations would address homophobia. More recent research revealed the need for data collection about sexual orientation and identity in the housing sector to understand and respond to the housing needs of LGBT+ communities.⁷⁶

7.3 People who use substances

People with addictions seeking support have often faced the choice of either keeping their home or accessing essential residential treatment. This is because many third-sector rehabilitation facilities require the person to claim housing benefit for when they are resident with them. However, housing benefit regulations prevent people claiming for both their home and the rehabilitation facility. The Scottish Government have now pledged to establish a £5 million recovery and rehabilitation fund to provide additional residential rehabilitation capacity and to support people financially through residential rehabilitation.⁷⁷

7.4 People who are refugees or asylum seekers

Many refugees and asylum seekers arrive in Scotland with physical and mental health problems associated with reasons for seeking asylum. Incidents of racism or prejudice and the challenge of understanding and exercising rights can exacerbate existing health problems or create new ones.⁷⁸

Access to secure housing is important to support refugees to settle in Scotland. Refugees and asylum seekers reported feeling safe in their own home was a key concern.⁷⁸ Some had experienced racial harassment, threats of violence and intimidation from neighbours and people in their local area. Some refugees and asylum seekers indicated a fear of reporting issues or concerns to their housing provider, in case they lost their housing. Asylum seekers raised concerns about risks when allocated accommodation with strangers, who may be prejudiced against them. The LGBT+ community in particular highlighted incidents of being accommodated with people who are homophobic.

Some people have 'no recourse to public funds', which prevents them from accessing some forms of welfare support and can result in destitution. The Scottish Government has published a strategy for ending destitution⁷⁹ which reported housing circumstances experienced by people with no recourse to public funds. Examples included insecure housing, single men with no recourse to public funds being ineligible for local authority homeless services, and rough sleeping and homelessness. It was also highlighted that for people with no recourse to public

funds their housing may be dependent on a relationship, meaning they would become homeless if their relationship broke down.

7.5 People who are migrants

Research carried out in 2021 with people who migrated to Scotland to provide labour⁸⁰ found that migrants are dependent on their employer for accommodation. Most of the research participants lived in caravans on agricultural sites and described their accommodation as unhealthy with it being damp, cold and overcrowded with limited space.

7.6 People with learning disabilities

People with learning disabilities are known to be at greater risk of homelessness and less likely to live in their own home than the general population.⁸¹ In addition, people with learning disabilities are sometimes living away from their home area in institutional settings. In many cases this is not through choice and impacts negatively on quality of life and outcomes for them and their families. The 'Coming Home' report⁸² identified that people were placed out of their local areas due to a lack of capacity in support services, whereas delayed discharge from hospital occurred due to a lack of accommodation as well as issues with support services.

7.7 Gypsy/Traveller communities

Evidence from Scotland and the UK⁸³ has attributed a lack of access to culturally appropriate housing as a major contributory factor in the poor health, educational and societal outcomes experienced by Gypsy/Travellers. There is a shortage of permanent Gypsy/Traveller sites in Scotland and many existing sites are poor quality. Minimum standards for sites were introduced in 2015.⁸⁴ However, by 2018, 14 of the 27 sites assessed had not yet met these standards. Research with Gypsy/Travellers in 2019 identified concerns about sites included the overall condition and cleanliness of sites and a view that sites have suffered from a lack of investment.⁸⁵

Challenges with adaptations exist for disabled Gypsy/Travellers, as sometimes static caravans and chalets are classed as unsuitable or ineligible for adaptation. Some

Gypsy/Travellers are therefore forced into mainstream housing as a result of ill health or disability or the need to care for an ill or disabled relative. Gypsy/Travellers moving into mainstream housing have reported a loss of cultural identity and isolation, which is known to be detrimental for their mental health and wellbeing.⁸⁶

There is strong evidence to show that provision of affordable housing for people with specific needs can improve engagement with healthcare services and improve health and social outcomes. This includes people with chronic health conditions, substance use issues, mental health problems and experience of homelessness.⁷ Homelessness is discussed further below.

8. Health and homelessness

Key messages

- People experiencing homelessness have catastrophically poor health outcomes.
- Domestic abuse is the main cause of women's homelessness in Scotland.
- A whole-systems approach is needed to address severe and multiple disadvantage.

8.1 Severe and multiple disadvantage

In 2018 the Scottish Government published Health and Homelessness in Scotland⁸⁷ which linked health and homelessness datasets for the first time. This work has highlighted the negative impact that homelessness has on many aspects of physical and mental health and wellbeing, such as premature mortality. The health outcomes for people experiencing homelessness in particular are catastrophically poor.

People who are experiencing homelessness have a much higher risk of death from a range of causes than the general population. In 2019, Hard Edges Scotland⁸⁸ made a renewed case for taking a whole-system approach to severe and multiple disadvantage (SMD), with sustained and deep collaboration and coordination required at all levels. The report highlighted the poor health outcomes associated with SMD and the much higher levels of long-term limiting illness or disability for people with SMD, noting that trauma is very prevalent in the lives of people who are

at risk of, or are experiencing, homelessness. The report also found a strong relationship between the experience of SMD and housing which is not warm enough in winter or in a poor state of repair.

Homelessness is caused by a range of challenges in people's lives – which can be complex and interrelated – such as poverty, inequality, relationship breakdown, job loss, bereavement or domestic abuse. Domestic abuse remains the main cause of women's homelessness in Scotland.⁸⁹

8.2 Temporary accommodation

A Crisis Scotland report on unsuitable temporary accommodation in Scotland,⁹⁰ highlighted that homelessness should only ever be rare, brief and non-recurrent. It concluded spending any time in unfit emergency accommodation is detrimental to health and wellbeing, and is socially isolating for those who experience it. The report found that the majority of people using temporary accommodation felt isolated and unsafe, and usage of drugs and alcohol increased, noting 88% of people reported experiencing depression.

9. Mental health

Key messages

- Financial, spatial and relational factors are associated with housing insecurity and mental health.
- The balance of power between tenant and landlord is an important consideration.
- A good tenant–landlord relationship is positive for tenancy sustainment, as is the ability for the tenant to make their house a home and make choices about it.

9.1 Mental health and wellbeing

In 2015, the Commission on Housing and Wellbeing concluded that ‘Good housing offers a stable foundation from which to build a home [that] provides us with a sense of belonging and connection to where we live and acts as a springboard to develop other aspects of our life’.⁹¹ The relationship between housing and mental health is complex and it can be causal and consequential. Research has shown that 30% of people who have been homeless have experienced a mental health problem.⁸⁷

There are a number of factors which are associated with housing insecurity and mental health including financial, spatial and relational factors.⁹² Key financial stressors include being behind on mortgage payments, being in debt and experiencing fuel payment difficulties. Spatial factors include the impact of eviction and tenancy insecurity. Relational issues include living with other tenants, anti-social behaviour and having care duties. These relational issues also extend into the wider neighbourhood with evidence showing that perceptions of crime and a sense of safety associated with mental health and wellbeing.⁹³

9.2 Tenancy sustainment

There are many approaches to tenancy sustainment, with the tenant–landlord relationship, the ability to make a house a home, affordability (in particular at the start of a tenancy) and choice of neighbourhood all being identified as factors integral for successful tenancy sustainment.⁹⁴

For the private rented sector, research has affirmed the importance of the tenant having a positive relationship with their landlord, and concluded there are actions letting agents and landlords can take to enable their tenants to make their tenancy a home.⁹⁵

Ending furniture poverty by providing free furnishings or white goods, as has been undertaken in Liverpool,⁹⁶ has positive outcomes, including improving recipients mental and physical health.

9.3 Power of tenants

Power is a fundamental cause of health inequalities. The World Health Organization (WHO) has identified different types of power^e and these different types of power exist in many aspects of the housing system. Supporting the balance of power between tenants and their social or private landlords is an important consideration in the context of tenants' satisfaction with housing which is likely to contribute to tenancy sustainment.

10. Place and community

Key messages

- Place-based approaches can improve the quality of homes and neighbourhoods and support the health and wellbeing of communities.
- During lockdown people with access to outdoor space felt most comfortable with their homes, yet it is estimated that 13% of households in Scotland have no access to private or shared outdoor space.
- All homes should have access to outdoor space, daylight and broadband.
- For disabled people accessibility of the external environment or place is an important factor in them considering housing as being suitable.

10.1 Place and wellbeing

Place has an important effect on our lives and our wellbeing. Improving the quality of places and the opportunities we have access to can help to improve our health and tackle inequalities. The Place Principle⁹⁷ affirms that place is where people, location and resources combine to create a sense of identity and purpose. This is at the heart of addressing needs and realising the full potential of communities. The Place

^e Power over: where some are able to influence or coerce others. Power to: where individuals are broadly able to organise and change existing hierarchies. Power with: the collective power of communities or organisations. Power within: individual capacity to exercise power.

Principle advocates for a more joined-up, collaborative and participative approach to services, land and buildings, across all sectors, to enable better outcomes.

The Place Standard Tool⁹⁸ is one available place-based methodology to structure conversations about place. Based on evidence, it captures the big issues which influence how good a place is for health, and how well it works. Aspects of place include access to active travel, local amenities, sense of belonging, participation and engagement, social connections, access to greenspace, as well as housing. A case study has been published⁹⁹ presenting the Place Standard being applied to inform housing design and town centre investment in Alloa.

10.2 20-minute neighbourhoods

An example of a place-based approach being applied to planning is the development of 20-minute neighbourhoods. Green, mixed-use, less-trafficked, connected neighbourhoods with diverse housing sizes and types, and facilities that meet everyday needs available within a short distance are key. Two reports provide insights into the opportunities and challenges that this approach presents for health and wellbeing. One of these reports relates to the urban context as it scoped housing scenarios proposed for Edinburgh's Local Development Plan,¹⁰⁰ whereas the other report focused on the rural context as it assessed the spatial plan for Argyll and Bute.¹⁰¹

10.3 Access to outdoor/private garden space

The wider environment and community outside of the home has an impact on homes being habitable, and for disabled people the accessibility of the external environment or place is an important factor in housing being considered suitable, irrespective of whether the house itself is accessible.¹⁰²

Research during the COVID-19 lockdown marked falls in the use of public greenspace among some groups, most notably older people, as well as ethnic minorities and people with lower socioeconomic status.¹⁰³ It concluded this will lead to widening health inequalities if positive action is not taken and that there is an ongoing need for housing to offer access to greenspace or gardens.¹⁰³ The need for housing to provide access to outdoor space is echoed by Public Health Scotland

research undertaken during the pandemic.¹⁰⁴ This identified that while overall only 9% of children did not have access to a private garden at home, in low-income households, as many as 22% of children did not have access to a garden at home, compared to only 4% of children in high-income families. In Scotland, it is estimated that 13% of households have no access to a private or shared garden.¹⁰⁵

This is important given research during lockdown identified that households with a private garden or terrace space were the most comfortable, followed by those with a private balcony or shared garden.⁵⁸

There is a risk of there being a negative mental health impact if those living in more deprived areas are unable to leave their homes or have very limited access to greenspace locally.¹⁰⁶

Research published on the impact of housing design and place on social value and wellbeing in the pandemic concluded that resilience starts with the home and its design, and recommended all homes should have access to balconies, daylight and broadband.¹⁰⁷

11. Opportunities for health and housing collaboration

Key message

- There are opportunities for public health professionals to influence housing policies, plans and strategies so that the potential for housing to promote health and wellbeing is maximised and there are tools to ensure that housing and health needs are considered.

11.1 Collaboration examples

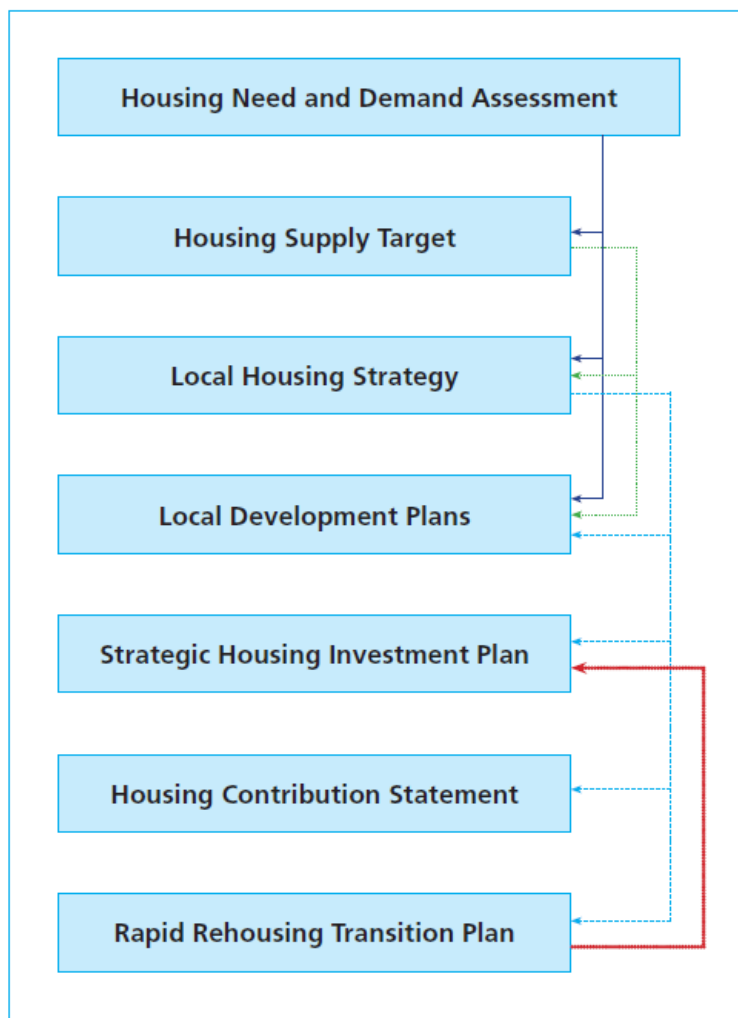
There are a number of opportunities for colleagues across health and housing to collaborate in the development of plans and strategies for housing. Two case studies have been published illustrating examples of collaboration. The first case study features Aberdeen City Council in partnership with Aberdeen Health and Social Care Partnership (HSCP) undertaking a health inequalities impact assessment of the local housing strategy¹⁰⁸ while the second case study presents NHS Ayrshire and Arran

working with the Energy Agency and local authorities to evaluate the impact of home energy improvements.¹⁰⁹

11.2 Development of housing strategies and plans

Public Health Scotland's housing strategies briefing paper¹¹⁰ outlines housing strategies and plans that local authorities produce. This paper highlights opportunities for health professionals to engage with local authorities to maximise the contribution these plans and strategies can make to good health and reducing health inequalities. These opportunities are illustrated in Figure 2.

Figure 2: Diagram of housing plans and strategies



11.3 The delivery of health and social care services

For integration of authorities and the delivery of health and social care services, the 'National health and wellbeing outcomes framework'¹¹¹ was published in 2015. The outcomes in this framework relate to housing and health in a range of ways but the most significant outcome is 'people, including those with disabilities or long-term conditions, or who are frail, are able to live, as far as reasonably practicable, independently and at home or in a homely setting in their community'. Integration authorities publish strategic commissioning plans which include housing contribution statements setting out the authority's plans for achieving delivery of the health and wellbeing outcomes.

11.4 Public health priorities

In 2018, the Scottish Government and the Convention of Scottish Local Authorities (COSLA) jointly published Public Health Priorities for Scotland.¹¹² These priorities are relevant across all sectors, relate to aspects other than housing – such as early years, mental health and substance use – and are consistent with Scotland's commitment to equality and human rights. Good-quality, accessible and affordable housing is central to progressing priority 1, which is for everyone to 'live in vibrant, healthy and safe places and communities'.

To support the delivery of policy and practice of a place-based approach, a series of place and wellbeing outcomes have been developed by colleagues working on the place agenda from across Public Health Scotland, Scottish Government, COSLA, the Improvement Service and local NHS Boards. These place and wellbeing outcomes are evidence based and provide a framework for developing places and communities which support health improvement and tackle health inequalities.

11.5 Impact assessment

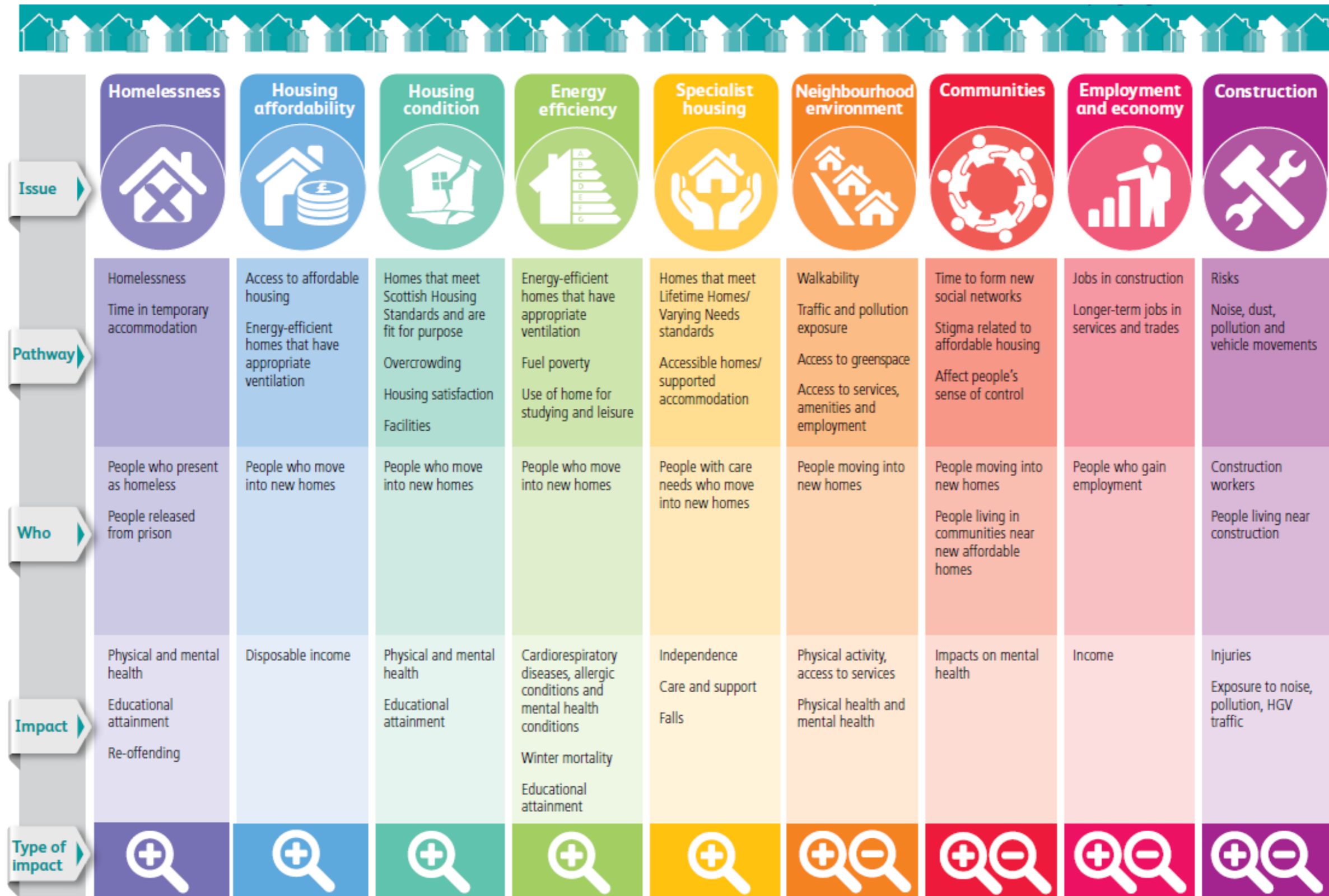
Impact assessments are important to ensure that the implementation of policy does not discriminate or widen inequalities, and to promote equality of opportunities. As stated in the position statement that this resource complements, individual impact assessments will be progressed for the individual policies associated with 'Housing

to 2040'. The evidence presented in this report is intended to support the full impact assessments of policies.

There are different forms of impact assessment. A health inequalities impact assessment (HIIA)¹¹³ is a tool which can assess the impact of new or revised policy or practice on health and wellbeing. HIAs incorporate duties under the Equality Act 2010 and Fairer Scotland Duty by assessing impact on health inequalities, protected characteristics, human rights and socioeconomic circumstances.

In 2017, a health impact assessment was carried out of the 50,000 Affordable Homes Programme.³⁸ This assessment identified and assessed the likely health impacts of the commitment to 50,000 affordable homes and makes recommendations to enhance these impacts. Figure 3 presents a summary of the findings and recommendations from this impact assessment.

Figure 3: 50,000 affordable homes: a health impact assessment



Conclusion

This paper has used current evidence to map out the pathways and mechanisms linking housing to health and wellbeing. There is an opportunity for public health colleagues, housing colleagues and academics to contribute to future research that builds on this evidence base. For example, research to further understand the impact of energy efficiency measures on health and wellbeing, increasing our understanding of the lived experience of how poor-quality and insecure housing impacts on health and wellbeing, and strengthening the causal links between access to private garden space and health and wellbeing would be beneficial.

Adequate housing which is safe, accessible, available, appropriate and high quality is key to us achieving the highest attainable standard of health. The cost of housing, its design, access to private outdoor space and its location in accessible places where people want to live (where quality services, greenspace and amenities exist) are all aspects that impact on our health and wellbeing. For this to be a positive impact the current experience for many households outlined in this paper needs to be addressed and there is an opportunity to do so through Housing to 2040.

References

¹ Scottish Government. Housing to 2040. Edinburgh: Scottish Government; 2021.

² Scottish Government. Housing to 2040: Equalities position statement. Edinburgh: Scottish Government; 2021. www.gov.scot/publications/housing-to-2040-equalities-position-statement/

³ The Health Foundation. What makes us healthy? An introduction to the social determinants of health. London: The Health Foundation; 2018. www.health.org.uk/publications/what-makes-us-healthy

⁴ Scottish Public Health Observatory. Health inequalities introduction. www.scotpho.org.uk/comparative-health/health-inequalities/data/data-introduction/

⁵ World Health Organization. Housing and health guideline. Geneva: World Health Organization; 2018.

<http://apps.who.int/iris/bitstream/handle/10665/276001/9789241550376-eng.pdf>

⁶ Public Health Scotland. Our blog - We can't have one without the other. Edinburgh: Public Health Scotland; 2019.

www.healthscotland.scot/our-blog/we-can-t-have-one-without-the-other

⁷ Public Health England. Spatial planning for health: An evidence resource for planning and designing healthier places. London: Public Health England; 2017.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729727/spatial_planning_for_health.pdf

⁸ Scottish Government. Poverty and income inequality in Scotland 2017-20.

Edinburgh: Scottish Government; 2021. <https://data.gov.scot/poverty/>

⁹ Joseph Rowntree Foundation. Poverty in Scotland 2020. Joseph Rowntree Foundation; 2020. www.jrf.org.uk/report/poverty-scotland-2020

¹⁰ Shelter Scotland. Has 'affordable housing' remained affordable across Scotland? Edinburgh: Shelter Scotland; 2020.

https://scotland.shelter.org.uk/professional_resources/policy_library/has_affordable_housing_remained_affordable_across_scotland

¹¹ Scottish Government. Rent affordability in the affordable housing sector: Literature review. Edinburgh: Scottish Government; 2019. www.gov.scot/publications/rent-affordability-affordable-housing-sector-literature-review/

¹² Scottish Government. Private sector rent statistics: 2010 – 2019. Edinburgh: Scottish Government; 2019. www.gov.scot/publications/private-sector-rent-statistics-2010-2019/

¹³ Chartered Institute of Housing. Frozen out. Edinburgh: Chartered Institute of Housing; 2019. www.cih.org/media/nypi2ki0/frozen-out-nov-2019.pdf

¹⁴ NHS Health Scotland. Health inequalities: What are they? How do we reduce them? Inequality briefing housing and health. Edinburgh: NHS Health Scotland; 2016. www.healthscotland.scot/media/1250/housing-and-health_nov2016_english.pdf

¹⁵ Scottish Public Health Network. Foundations for well-being: reconnecting public health and housing. A practical guide to improving health and reducing inequalities. Edinburgh: Scottish Public Health Network; 2017. www.scotphn.net/wp-content/uploads/2017/03/2017_03_08-HH-Main-Report-Final-1.pdf

¹⁶ Scottish Public Health Observatory. Housing key points. www.scotpho.org.uk/life-circumstances/housing/key-points/

¹⁷ Scottish Government. Scottish household survey 2018: Annual report. Edinburgh: Scottish Government; 2019. www.gov.scot/publications/scotlands-people-annual-report-results-2018-scottish-household-survey/pages/3/

¹⁸ Scottish Government. Private sector rent statistics: 2010 – 2020. Edinburgh: Scottish Government; 2020. www.gov.scot/publications/private-sector-rent-statistics-scotland-2010-2020/pages/2/

¹⁹ Scottish Government. Housing statistics 2018: Key trends summary. Edinburgh: Scottish Government; 2018. www.gov.scot/publications/housing-statistics-scotland-2018-key-trends-summary/pages/13/

²⁰ Scottish Federation of Housing Associations. Affordable housing need in Scotland post-2021. Glasgow: Scottish Federation of Housing Associations; 2020. www.sfha.co.uk/mediaLibrary/other/english/62960.pdf

²¹ Scottish Federation of Housing Associations, Joseph Rowntree Foundation, Public Health Scotland and the Rural and Islands Housing Associations Forum. Investment in social housing reduces poverty, improves health and drives economic growth. Scottish Federation of Housing Associations, Joseph Rowntree Foundation, Public Health Scotland and the Rural and Islands Housing Associations Forum; 2020. www.sfha.co.uk/news/news-category/sfha-news/news-article/investment-in-social-housing-reduces-poverty-improves-health-and-drives-economic-growth

²² Indigo House. Wave 1 baseline report. Edinburgh: Indigo House; 2020. <https://housingevidence.ac.uk/publications/innovation-in-housing-advice-in-the-uk-private-rented-sector/>

²³ Harris J. Innovation in housing advice in the UK private rented sector. Bristol: CaCHE; 2021.

<https://housingevidence.ac.uk/publications/innovation-in-housing-advice-in-the-uk-private-rented-sector/>

²⁴ Fisk WA, Eliseeva EA, and Mendell MJ. Association of residential dampness and mould with respiratory tract infections and bronchitis: A meta-analysis. *Pub Med*; 2010. <https://pubmed.ncbi.nlm.nih.gov/21078183/>

²⁵ Friends of the Earth and the Marmot Review Team. The health impacts of cold homes and fuel poverty. London: Institute of Health Equity; 2011. www.instituteofhealthequity.org/resources-reports/the-health-impacts-of-cold-homes-and-fuel-poverty/the-health-impacts-of-cold-homes-and-fuel-poverty.pdf

²⁶ National Institute for Health and Care Excellence. Excess winter deaths and illness and the health risks associated with cold homes. London: NICE; 2015. www.nice.org.uk/guidance/ng6/resources/excess-winter-deaths-and-illness-and-the-health-risks-associated-with-cold-homes-pdf-51043484869

²⁷ Scottish Government. Lived experience of fuel poverty: research. Edinburgh; Scottish Government; 2020. www.gov.scot/publications/research-lived-experience-fuel-poverty-scotland/pages/2/

²⁸ Scotland Climate Change Committee. National summary. Scotland Climate Change Committee; 2017. www.theccc.org.uk/uk-climate-change-risk-assessment-2017/national-summaries/scotland/

²⁹ HMSO. Fuel Poverty (Targets, Definition and Strategy) (Scotland) Act 2019. HMSO; 2019. <https://www.legislation.gov.uk/asp/2019/10/contents/enacted>

³⁰ Scottish Government. Scottish house conditions survey 2019 key findings. Edinburgh; Scottish Government; 2020. www.gov.scot/publications/scottish-house-condition-survey-2019-key-findings/

³¹ Scottish Government. A Scotland without fuel poverty is a fairer Scotland: report. Edinburgh: Scottish Government; 2016. www.gov.scot/publications/scotland-without-fuel-poverty-fairer-scotland-four-steps-achieving-sustainable/

³² Stepchange scotland. In the red. Glasgow: Stepchange Scotland; 2019. www.stepchange.org/Portals/0/assets/pdf/stepchange-scotland-in-the-red-2019-report.pdf

³³ Scottish Federation of Housing Associations. Fuel poverty survey. Glasgow: SFHA; 2019. www.sfha.co.uk/mediaLibrary/other/english/46988.pdf

³⁴ Shelter Scotland. A new economic case for social housing. Edinburgh: Shelter Scotland; 2020.

https://scotland.shelter.org.uk/professional_resources/policy_library/new_economic_case_for_social_housing_2020#:~:text=New%20Economic%20Case%20For%20Social%20Housing%202020.%20By%3A,between%202021%20and%202026%20and%20then%20maintaining%20them.

³⁵ Scottish Government. Wheelchair accessible housing target: Guidance note: MHDGN 201902. Edinburgh: Scottish Government; 2019.

www.gov.scot/publications/wheelchair-accessible-housing-target-guidance-note-mhdgn-201902/

³⁶ Equality and Human Rights Commission. Housing and disabled people: Scotland's hidden crisis. Glasgow: EHRC; 2018.

www.equalityhumanrights.com/en/publication-download/housing-and-disabled-people-scotlands-hidden-crisis

³⁷ Shelter Scotland. Review of strategic investment plans for affordable housing. Edinburgh: Shelter Scotland; 2018.

https://scotland.shelter.org.uk/professional_resources/policy_library/review_of_strategic_investment_plans_for_affordable_housing

³⁸ Higgins, M, Cain T, Lowther M, Mackie P, Scarlett E, Douglas MJ. 50,000 affordable homes: A health impact assessment. Edinburgh: Scottish Health and Inequalities Impact Assessment Network and Scottish Public Health Network; 2017.

www.scotphn.net/wp-content/uploads/2017/06/2017_06_27-FINAL-SHIAN-50-000-New-Homes-HIA-Report-ES.pdf

³⁹ The TEC In Housing Charter Pledges <https://techousing.co.uk/pledges/>

⁴⁰ Horizon Housing. Still minding the step? Livingston: Horizon Housing; 2017.

www.horizonhousing.org/media/1522/still-minding-the-step-full-report.pdf

⁴¹ Healthcare Improvement Scotland, Chartered Institute of Housing and Alzheimers Scotland. Housing and dementia practice framework. Edinburgh: Healthcare

Improvement Scotland, Chartered Institute of Housing and Alzheimers Scotland; 2018. www.cih.org/policy/scottish-housing-and-dementia-framework

⁴² Scottish Federation of Housing Associations. Inclusive living evidence review. Glasgow: SFHA; 2020.

www.housinglin.org.uk/_assets/Resources/Housing/OtherOrganisation/Inclusive-Living-Evidence-Review.pdf

⁴³ Glasgow City Council. The Glasgow Standard a design schedule for affordable housing in Glasgow. Glasgow: Glasgow City Council; 2017.

www.glasgow.gov.uk/CHttpHandler.ashx?id=39199&p=0

⁴⁴ Equality and Human Rights Commission. Housing and disabled people: Scotland statistics. Glasgow: EHRC; undated. www.equalityhumanrights.com/en/housing-and-disabled-people-scotland-statistics

⁴⁵ Scottish Health Inequalities Impact Assessment Network. Health inequalities impact assessment of home improvement: A guide. Edinburgh: Scottish Public Health Network; 2013. www.scotphn.net/wp-content/uploads/2015/10/2013_02_26_HIA_of_Housing_Improvements_Guide1.pdf

⁴⁶ Scottish Government. Regulations to modify repairing standard: summary. Edinburgh: Scottish Government; 2019. www.gov.scot/publications/regulations-to-modify-repairing-standard-summary/

⁴⁷ Williamson IJ, Martin CJ, McGill G, Monie RD, Fennerty AG. Damp housing and asthma: a case-control study. *BMJ* Volume 52: 3;1997.

<https://thorax.bmj.com/content/52/3/229>

⁴⁸ Shelter. Chance of a lifetime the impact of bad housing on children's health. Shelter; 2006.

https://assets.ctfassets.net/6sxvmndnps/4LTxp3mya7ligRmNG8x9KK/6922b5a4c6ea756ea94da71ebdc001a5/Chance_of_a_Lifetime.pdf

⁴⁹ Building Research Establishment. The cost of bad housing to the NHS. London: BRE; Undated. www.bre.co.uk/filelibrary/pdf/87741-Cost-of-Poor-Housing-Briefing-Paper-v3.pdf

⁵⁰ Centre for Aging Better. Home and dry the need for better homes in later life. Centre for Aging Better; 2020. www.ageing-better.org.uk/sites/default/files/2020-03/Home-and-dry-report.pdf

⁵¹ Equality and Human Rights Commission. Race statistics. London: EHRC;2020. www.equalityhumanrights.com/en/race-report-statistics

⁵² The Health Foundation. Overcrowding is highest for those with low incomes. London: The Health Foundation; 2020. www.health.org.uk/news-and-comment/charts-and-infographics/overcrowding-is-highest-for-those-with-low-incomes#:~:text=%20Key%20points%20%201%20Living%20in%20an,associated%20lockdown%20in%20multiple%20ways%2C%20contributing...%20More%20
0

⁵³ The Office of the Deputy Prime Minister. The impact of overcrowding on health and education: A review of evidence and literature. London: Office of the Deputy Prime Minister; 2004. <https://dera.ioe.ac.uk/5073/1/138631.pdf>

⁵⁴ National Housing Federation. Housing issues during lockdown health space and overcrowding. London: NHF; 2021. www.housing.org.uk/globalassets/files/homes-at-the-heart/housing-issues-during-lockdown---health-space-and-overcrowding.pdf

⁵⁵ Novoa AM, et al. Changes in health following housing improvement in a vulnerable population in Spain: A follow-up study. London; SAGE; 2017. <https://journals.sagepub.com/doi/abs/10.1177/0020731416676228?journalCode=joha>

⁵⁶ NHS Health Scotland. Building foundations for health and housing – sharing examples of collaboration case study: NHS Ayrshire & Arran/Energy Agency. Edinburgh: NHS Health Scotland; 2018. www.healthscotland.scot/media/2366/building-foundations-for-health-and-housing-case-study-ayrshire-arran.pdf

⁵⁷ Shelter. The living home standard. London: Shelter; 2016. www.shelter.org.uk/__data/assets/pdf_file/0011/1287848/living_home_standard_full_report.pdf

-
- ⁵⁸ Place Alliance. Home comforts during the Covid-19 lockdown. London: Place Alliance; 2020. <https://placealliance.org.uk/research/research-home-comforts/>
- ⁵⁹ Climate Change Committee. UK Housing: Fit for the future? London: Climate Change Committee; 2019. www.theccc.org.uk/publication/uk-housing-fit-for-the-future/
- ⁶⁰ Preston I et al. Climate change and social justice: An evidence review. York: Joseph Rowntree foundation; 2014.
- ⁶¹ Scottish Government. Just Transition Commission: A national mission for a fairer, greener Scotland. Edinburgh: Scottish Government; 2021. www.gov.scot/publications/transition-commission-national-mission-fairer-greener-scotland/
- ⁶² Thomson H, Thomas S. Developing empirically supported theories of change for housing investment and health. *Social Science and Medicine* 2015; 124: 205–214. www.sciencedirect.com/science/article/pii/S0277953614007758 (accessed 25 February 2020).
- ⁶³ Willand N, Ridely I, Maher C. Towards explaining the health impacts of residential energy efficiency interventions – A realist review. Part 1: Pathways. *Social Science and Medicine* 2015;133:191–201. www.sciencedirect.com/science/article/pii/S027795361500088X (accessed 8 January 2020)
- ⁶⁴ Existing Homes Alliance. Alliance sets out pathway to zero carbon homes by 2045. Existing Homes Alliance; 2019. <http://existinghomesalliancescotland.co.uk/news/alliance-sets-out-pathway-to-zero-carbon-homes-by-2045/>
- ⁶⁵ Pridmore A, et al. Evidence review of the potential wider impacts of climate change mitigation options: Built environment sector. Edinburgh: Scottish Government; 2017. www.gov.scot/binaries/content/documents/govscot/publications/research-and-analysis/2017/01/evidence-review-potential-wider-impacts-climate-change-mitigation-options-built/documents/00513151-pdf/00513151-pdf/govscot%3Adocument/00513151.pdf (accessed 6 February 2020).

⁶⁶ Vardoulaskis S, et al. Impact of climate change on the domestic indoor environment and associated health risks in the UK. *Environment International* 2015; 85:299-313. www.sciencedirect.com/science/article/pii/S0160412015300507 (accessed 8 January 2020).

⁶⁷ Shrubsole C, Macmillan A, Davies M, May N. 100 unintended consequences of policies to improve the energy efficiency of the UK housing stock. *Indoor and Built Environment* 2014; 23(3):340-352. <https://journals.sagepub.com/doi/abs/10.1177/1420326X14524586> (accessed 8 January 2020)

⁶⁸ Sustainable Health Equity: Achieving a net zero UK (UCL) – Climate Change Committee. www.theccc.org.uk/publication/ucl-sustainable-health-equity-achieving-a-net-zero-uk/

⁶⁹ Vardoulakis S, et al. Impact of climate change on the domestic indoor environment and associated health risks in the UK. *Environment International* 2015; 85:299-313. www.sciencedirect.com/science/article/pii/S0160412015300507 (accessed 8 January 2020).

⁷⁰ Shrubsole C, Macmillan A, Davies M, May N. 100 unintended consequences of policies to improve the energy efficiency of the UK housing stock. *Indoor and Built Environment* 2014; 23(3):340–352. <https://journals.sagepub.com/doi/abs/10.1177/1420326X14524586> (accessed 8 January 2020).

⁷¹ Chiabai A et al. The nexus between climate change, ecosystem services and human health: Towards a conceptual framework. *Science of the Total Environment* 2018; 635(1):1991–1204. www.sciencedirect.com/science/article/pii/S00489697183108300 (accessed 13 November 2019).

⁷² Munro A, et al. Effect of evacuation and displacement on the association between flooding and mental health outcomes: a cross-sectional analysis of UK survey data. *The Lancet Planetary Health* 2017;1 (14):e134–e141. www.sciencedirect.com/science/article/pii/S2542519617300475 (accessed 8 January 2020).

⁷³ World Health Organization. Urban green spaces and health a review of evidence. Copenhagen: WHO Regional Office for Europe; 2016.

⁷⁴ Public Health Scotland. Inclusion health principles and practice: An equalities and human rights approach to social and systems recovery and mitigating the impact of COVID-19 for marginalised and excluded people. Edinburgh: Public Health Scotland; 2020.

<https://publichealthscotland.scot/downloads/inclusion-health-principles-and-practice-mitigating-the-impact-of-covid-19/>

⁷⁵ LGBT Health and Wellbeing Centre. The final LGBT housing project report: safe and secure? LGBT experiences of social housing in Scotland. Edinburgh: LGBT Health and Wellbeing Centre; 2007. www.lgbthealth.org.uk/wp-content/uploads/2014/08/lgbt_housing_report.pdf

⁷⁶ Nugent B. LGBT+ experiences of homelessness in Fife. Fife: Frontline Fife; 2020. www.frontlinefife.co.uk/site/assets/files/1027/lgbt_report_-_early_release_copy_23-11-2020.pdf

⁷⁷ Scottish Housing News. Government vows to support people needing help for addiction who faced losing their home. Scottish Housing News; 22 March 2021. www.scottishhousingnews.com/article/government-vows-to-support-people-needing-help-for-addiction-who-faced-losing-their-home

⁷⁸ Scottish Government. New Scots: Refugee integration strategy 2018 to 2022. Edinburgh: Scottish Government; 2018. www.gov.scot/publications/new-scots-refugee-integration-strategy-2018-2022/pages/8/

⁷⁹ Scottish Government. Ending destitution together a strategy to improve support for people with no recourse to public funds living in Scotland 2021-2024. Edinburgh: Scottish Government; 2021.

⁸⁰ Focus on Labour Exploitation. Assessment of the risks of human trafficking for forced labour on the UK seasonal workers pilot. Focus on Labour Exploitation; 2021. <https://labourexploitation.org/publications/assessment-risks-human-trafficking-forced-labour-uk-seasonal-workers-pilot#overlay->

[context=publications/assessment-risks-human-trafficking-forced-labour-uk-seasonal-workers-pilot](#)

⁸¹ Scottish Consortium for Learning Disabilities. Improving outcomes for people with learning disabilities: Opportunities and challenges for housing. Glasgow: Scottish Consortium for Learning Disabilities; 2017.

www.sclid.org.uk/wp-content/uploads/2017/10/Improving-Outcomes-key-findings.pdf

⁸² Scottish Government. Coming home: Complex care needs and out of area placements. Edinburgh: Scottish Government; 2018.

www.gov.scot/publications/coming-home-complex-care-needs-out-area-placements-report-2018/

⁸³ Scottish Government. Gypsy/Travellers - accommodation needs: Evidence review. Edinburgh: Scottish Government; 2020.

www.gov.scot/publications/evidence-review-accommodation-needs-gypsy-travellers-scotland/pages/9/

⁸⁴ Scottish Government. Improving Gypsy/Traveller sites: Guidance on minimum sites standards and site tenants' core rights and responsibilities. Edinburgh: Scottish Government; 2015.

www.gov.scot/publications/improving-gypsy-traveller-sites-guidance-minimum-sites-standards-site-tenants/

⁸⁵ Scottish Housing Regulator. Gypsy/Travellers raise concerns about site conditions in Regulator's new report. Glasgow: Scottish Housing Regulator; 2019.

www.housingregulator.gov.scot/about-us/news/gypsytravellers-raise-concerns-about-site-conditions-in-regulator-s-new-report

⁸⁶ Minority Ethnic carers of older people project. Briefing sheet 15. Gypsy/Traveller carers. MECOPP; Undated.

https://static1.squarespace.com/static/5c06d635506f62ec834460/t/5eb90b1975c2e1070e2c7e98/1589185308010/MECOPP_Briefing_Sheet_15.pdf

⁸⁷ Scottish Government. Health and homelessness in Scotland: research. Edinburgh: Scottish Government; 2018.

www.gov.scot/publications/health-homelessness-scotland/

⁸⁸ Fitzpatrick S, Bramley G. Hard edges Scotland full report. Lankelly Chase and The Robertson Trust; 2019.

<https://lankellychase.org.uk/wp-content/uploads/2019/06/Hard-Edges-Scotland-full-report-June-2019.pdf>

⁸⁹ Crisis. Domestic abuse briefing. Crisis; [Undated].

www.crisis.org.uk/media/241680/domestic-abuse-briefing-final.pdf

⁹⁰ Crisis. I won't last long in here experiences of unsuitable temporary accommodation in Scotland. Edinburgh: Crisis; 2018.

www.crisis.org.uk/media/239523/i_wont_last_long_in_here_experiences_of_unsuitable_temporary_accommodation_in_scotland_-pdf.pdf

⁹¹ Commission on Housing and Wellbeing. A blueprint for Scotland. Commission for Housing and Wellbeing; 2015.

<http://housingandwellbeing.org/assets/documents/Commission-Final-Report.pdf>

⁹² UK Collaborative Centre for Housing Evidence. Housing insecurity and mental health in Wales: Evidence review (2019) UK Collaborative Centre for Housing Evidence; 2019.

<https://housingevidence.ac.uk/publications/housing-insecurity-and-mental-health-an-evidence-review/>

⁹³ Mind. Room for improvement. A review of mental health and housing. Mind; 2017.

www.mind.org.uk/media-a/4432/20171115-brick-by-brick-final-low-res-pdf-plus-links.pdf

⁹⁴ Glasgow Centre for Population Health. Housing through social enterprises. Glasgow: Glasgow Centre for Population Health; 2019.

www.gcph.co.uk/places_and_regeneration/housing_though_social_enterprise

⁹⁵ New study to reveal how landlords can support tenants to create 'homes'. University of Stirling; 2020. www.stir.ac.uk/news/2020/june-2020-news/new-study-to-reveal-how-landlords-can-support-tenants-to-create-homes/

96 FRC Group. SROI of furniture provision. FRC group; 2021.

<https://scottishhousingnews.com/uploads/SROI%20of%20Furniture%20Provision%202021.pdf>

97 The Place Principle

www.improvementservice.org.uk/__data/assets/pdf_file/0026/9548/place-principle.pdf

98 The Place Standard www.placestandard.scot/

99 Architecture and Design Scotland. Case study: Place Standard and its use in Alloa. Architecture and Design Scotland; 2019.

www.ads.org.uk/place_standard_case_study_alloa/

100 The Improvement Service. Comparing the 20 minute neighbourhood and traditional scenarios in Edinburgh local development plan. Livingston: The Improvement Service; 2020.

www.improvementservice.org.uk/__data/assets/pdf_file/0021/19740/20-minute-neighbourhood-rapid-scoping-assessment.pdf

101 Scottish Health Inequalities Impact Assessment Network. Argyll and Bute indicative regional spatial strategy: A 20 minute neighbourhood rapid scoping assessment. Livingston: The Improvement Service; 2021.

www.improvementservice.org.uk/__data/assets/pdf_file/0016/25072/Argyll-and-Bute-Rapid-Scoping-Assessment.pdf

102 University of Stirling. Match me – What works for adapted social housing lettings? Stirling: University of Stirling; 2019.

www.housinglin.org.uk/Topics/type/Match-Me-What-works-for-adapted-social-housing-lettings/

103 Olsen J, Mitchell R. S&SR Environment and Spaces Group Report: COVID-19 green and open space use in autumn 2020. Glasgow: University of Glasgow; 2021. www.gla.ac.uk/media/Media_779126_smxx.pdf

104 Public Health Scotland. COVID-19 early years resilience and impact survey. Public Health Scotland; 2020. www.publichealthscotland.scot/downloads/covid-19-early-years-resilience-and-impact-survey-ceyris/

¹⁰⁵ Office for National Statistics. One in eight British households have no garden. London: Office for National Statistics; 2020.

www.ons.gov.uk/economy/environmentalaccounts/articles/oneineightbritishhouseholdshasnogarden/2020-05-14?hootPostID=b2b740f2d1d59bcf7120bf226074fbcd

¹⁰⁶ The Improvement Service. Poverty, inequality and COVID-19. A brief summary of some issues and potential impact on those living in socio-economic disadvantage. Livingston: The Improvement Service; 2021.

www.improvementservice.org.uk/__data/assets/pdf_file/0013/16402/Poverty-inequality-and-COVID19-briefing.pdf

¹⁰⁷ Samuel F. Impact of housing design and placemaking on social value and wellbeing in the pandemic – Interim report Reading; CaCHE; 2020.

<https://housingevidence.ac.uk/publications/impact-of-housing-design-and-placemaking-on-social-value-and-wellbeing-in-the-pandemic-interim-report/>

¹⁰⁸ NHS Health Scotland. Building foundations for health and housing case study Aberdeen City Council and NHS Grampian. Edinburgh: NHS Health Scotland; 2019.

www.healthscotland.scot/media/2365/building-foundations-for-health-and-housing-case-study-aberdeen-council-nhs-grampian.pdf

¹⁰⁹ NHS Health Scotland. Building foundations for health and housing case study NHS Ayrshire & Arran/Energy Agency. Edinburgh: NHS Health Scotland; 2019.

www.healthscotland.scot/media/2366/building-foundations-for-health-and-housing-case-study-ayrshire-arran.pdf

¹¹⁰ Public Health Scotland. Housing strategies briefing paper. Edinburgh: Public Health Scotland; 2018.

www.healthscotland.scot/publications/housing-strategies-briefing-paper

¹¹¹ Scottish Government. National health and wellbeing outcomes framework. Edinburgh: Scottish Government; 2015.

www.gov.scot/publications/national-health-wellbeing-outcomes-framework/pages/5/

¹¹² Scottish Government. Scotland's public health priorities. Edinburgh: Scottish Government; 2018. www.gov.scot/publications/scotlands-public-health-priorities/

¹¹³ Public Health Scotland. What is a HIIA? [www.healthscotland.scot/tools-and-resources/health-inequalities-impact-assessment-hia/what-is-an-hia#:~:text=Health%20Inequalities%20Impact%20Assessment%20\(HIIA\)%20is%20a%20tool,assess%20impact%20\(EQIA\)%20by%20assessing%20the%20impact%20on](http://www.healthscotland.scot/tools-and-resources/health-inequalities-impact-assessment-hia/what-is-an-hia#:~:text=Health%20Inequalities%20Impact%20Assessment%20(HIIA)%20is%20a%20tool,assess%20impact%20(EQIA)%20by%20assessing%20the%20impact%20on)

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