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1. Executive summary

1.1. Introduction
City West commissioned IMPACT (The International Health Impact Assessment Consortium), based in the division of Public Health at the University of Liverpool, to undertake a Health Impact Assessment (HIA) of their housing and neighbourhood improvement programme. They also commissioned IMPACT to deliver HIA capacity building within their organisation. City West intend to use the findings of the HIA to improve the health (and reduce health inequalities) of their customers; this is in line with their Key Performance Indicators.

HIA is concerned with improving health and reducing health inequalities. The aim of HIA is to inform and influence policy decision-making by enabling decision-makers to consider the health implications of their policies during the policy planning process. It is a systematic process, which identifies what the potential health effects of a new policy, programme, or project, such as the improvement programme, might be on a particular group of people, such as local residents. It considers which key health determinants, e.g., living conditions, social and community networks and lifestyle, will be affected and how this in turn will impact on the health and wellbeing of the population. In addition, HIA considers whether the programme will affect physical, mental and social wellbeing, as well as possibly affecting ill-health. Recommendations are then made to the policy-makers to mitigate against potential health risks and enhance health benefits.

This executive summary outlines the programme, the methods and process, the data collected and evidence of impacts (the findings), the conclusion and recommendations of the HIA.

A glossary of terms is included within appendix 1 (page 133).

1.2. Programme description
City West is responsible for approximately 14,500 properties in 4 areas in West Salford. The four Community Housing Improvement Areas (CHIAs) are as follows:
- Eccles, Barton and Winton
- Irlam and Cadishead
- Little Hulton, Walkden and Worsley
- Swinton and Pendlebury

The properties are dispersed over a large geographical area. Large socio-economic variations exist across the area and this is reflected in the physical condition and characteristics of the neighbourhoods. The properties vary in terms of types (e.g. detached houses, bungalows, semi-detached houses, low and high-rise flats), age and condition.

The improvement programme will ensure that all of the properties meet or exceed the Decent Homes Standard (see appendix 2, page 138, for information on the Decent Homes Standard). This will be accompanied by additional improvements to the general physical environment/neighbourhood improvements.
Over a ten year period City West have committed to improvements that include:

- Modernising kitchens
- Modernising bathrooms
- Re-roofing
- Providing external doors with secure locks
- Providing thermal insulation
- Replacing storage heaters and warm-air heating with modern radiator systems
- Providing double glazing with secure window locks
- Providing smoke and carbon monoxide detectors
- Providing external lighting to homes
- Providing environmental improvements
- Providing better security and lighting for blocks of flats.
- Providing a better funded and more efficient aids and adaptations service for disabled customers that would shorten waiting times and clear any backlog within five years.
- Plans to address the problems experienced in properties built from non-traditional materials, e.g. those with concrete exteriors.
- Plans to improve and maintain any ‘unadopted’ roads and footpaths that it owns.
- Providing more off-road parking facilities.
- Providing play areas for children and young people (Based on the pre-transfer document, Salford City Council, 2007).

City West are spending over £235 million on home and neighbourhood improvements during the initial stage of the project (up to April 2015).

1.3. Methodology

The assessment was conducted using a validated generic HIA methodology. The HIA was undertaken between August 2009 and July 2010. A detailed description of the methodology is described in section 3 of the main report.

The HIA is described as a Comprehensive HIA involving secondary (existing) and primary (new) data collection and analysis.

HIAs mainly use routinely collected data (for example, Census data and evidence from other studies on housing interventions and health), although new data was also collected through community engagement processes and a (pilot) HIA quantification process. From this data evidence was identified and impacts defined.

The scope of the HIA focuses on City West residents (City West customers) who are the recipients of the improvement programme in 4 Community Housing Investment Areas across West Salford. The scope is focused on the physical infrastructure that is upgraded by the improvement programme, with additional consideration of the neighbourhood context and general physical environment (external to housing).

1.4. Profile

This summary provides an overview of the issues and population characteristics in Salford, relative to the comparison areas.
Biological
- The population of Salford is growing, particularly older people, partly fuelled by a high fertility rate and increasing life expectancy.
- Teenage pregnancy rates are relatively high.

Lifestyle
- Levels of childhood obesity are relatively high in Salford. Like elsewhere in the country they are rising at an alarming rate.
- Physical activity levels are relatively low.
- Levels of alcohol-related harm are among the highest in the country, particularly for young people.
- Levels of smoking are relatively high, especially in some of the City West housing areas (wards).

Social/community
- A relatively low proportion of people feel they belong to their neighbourhoods, and that people from different backgrounds get on well together.
- A relatively low proportion of people feel they can influence decisions in their area.

Living and working conditions
- The percentage of non-decent council homes in Salford was twice the national average.
- General satisfaction with the local area was lower in Salford than the North West and England averages.
- Average unemployment rates are relatively high and economic activity rates are relatively low. Although BME rates show a slightly different picture.
- Crime rates are relatively high.

General socio-economic, cultural and environmental factors
- There are wide variations in levels of deprivation, with some of the most and least deprived areas in the country.
- Deprivation is more likely to be high among the residents of social housing.
- Educational attainment is relatively low.

Health status
- Levels of limiting long-term illness are relatively high, particularly for City West residents.
- Levels of physical disability are high, particularly for City West residents.
- Levels of mental health problems are relatively high.
- The proportion of people receiving care (formal and informal) is likely to be relatively high, particularly for City West residents.
- Pedestrians are the group most likely to be killed or injured in road traffic accidents.
- There are wide variations in health status and health inequalities.
- A relatively high proportion of City West residents may be vulnerable to the (positive and negative) impacts of the improvement programme.
Mortality and life expectancy

- Heart disease (32%), cancers (28%) and respiratory illness (18%) are the major causes of death, with the main risk factors related to lifestyle.
- Average life expectancy for men in Salford was 77 years and for women 81 years (2008 data).
- Life expectancy in Salford is the sixth lowest and female life expectancy the fifth lowest in England.

1.5. Policy analysis

The analysis examines the rationale and context of the plan (City West’s Improvement Plan/5 year Business Plan) relative to policies for housing improvement and the built environment and the wider policy context, particularly with regard to contributing to reducing inequities and inequalities in health locally.

There is a clear synergy between the central housing policy agenda and that of City West. The policy context of City West is driven by the two new organisations set up under the new Housing and Regeneration Act 2008 (OPSI, 2008), the Office of Tenants and Social Landlords (TSA) and the Homes and Communities Agency (NCA), due to the legislative nature of their relationship.

Less clear is the synergy between City West policies and non-housing policy, particularly local health policy, which is the responsibility of NHS Salford.

The overarching policy context over the time span of the HIA is economic, driven by a combination of both the global financial crisis and the recent change of UK Government. This is demonstrated by a fragile national housing market and sensitive financial environment, which continues despite a formal end of a period of recession. The original business plan, which was the basis of the offer upon which customers accepted the transfer of housing stock from Salford City Council, has required modification in light of the global financial situation, but City West remains strongly committed to full delivery.

Significant changes in the national policy context are anticipated, but are as yet unknown. Such changes may (or may not) impact upon the future availability of resources to City West. There are potentially numerous opportunities for City West to contribute significantly to reducing inequalities in health locally through delivery of the improvement programme and the development of their own Community Strategy.

With a lead for the Community Strategy both appointed and departed within the timescale of this HIA, it may take rather longer to fully develop the six strands of the Strategy than anticipated at the outset. However, with the new re-emphasis on “proportionate universalism” (see glossary page 136) in Closing the Gap in a Generation (2008), this presents a significant opportunity to strengthen the strategic engagement with NHS Salford to improve the health and wellbeing of City West customers, in turn contributing to reduction in inequity and inequalities in health for the population of Salford.
1.6. Evidence from the literature
The HIA identified, collated, classified (in terms of the strength of the evidence) and analysed a wide body of evidence from the academic literature. Three main categories of evidence were identified and considered:

1. Evidence on the health impacts of housing/housing interventions.
2. Evidence on the health impacts of the general physical environment.
3. Evidence based strategies and guidance to promote the design and delivery of healthy sustainable communities.

There is a growing body of evidence that associates housing with health and wellbeing outcomes. Evidence indicates that multiple housing deprivation leads to greater risk of disability or severe ill-health in later life. Evidence from studies of housing interventions show improvements in physical, mental and self perceived health.

The general physical environment includes both the built (e.g. housing) and natural external environment (e.g. public greenspaces). It influences key health determinants such as fear of crime, social interaction and levels of physical activity. Associated impacts on health outcomes include levels of obesity, depression and fatigue. The quality, appearance and maintenance of the general physical environment are important.

Where appropriate, the recommendations of the HIA are based on evidence of the effectiveness of interventions to protect and improve health.

1.7. Evidence from stakeholders and key informants
The purpose of participatory qualitative approaches is to gather evidence from the experience, knowledge, opinion and perceptions of stakeholders and key informants.

Stakeholders were invited to attend a series of workshops. Unfortunately the number of people who accepted invitations to the workshops was very low, when compared to similar HIAs, and the number of attendees was even lower, perhaps symptomatic of potential issues of community engagement in Salford. To address the issue of low representation three additional approaches were undertaken by IMPACT:

- A representative from IMPACT attended the annual City West customer feedback event to pose questions relating to the HIA in one of the workshops and identify individuals that would like to be interviewed for the purposes of the HIA.
- IMPACT conducted a series of one to one interviews with stakeholders to discuss their understanding of the issues and health impacts of the improvement programme.
- IMPACT commissioned a (DELPHI) telephone survey of a 5% sample of City West customers to identify issues/impacts and assess consistency/consensus with the findings of the one to one interviews/workshops.

During the same period the interviews with organisational stakeholders and key informants were also undertaken.

The process highlighted two main phases of potential impacts – the construction phase and the operational phase (once work was complete).
Stakeholders and key informants identified a wide range of potential health impacts and associated recommendations.

Potential negative impacts included, for example, effects on stress levels, risk of accidents in the home, activities inside and outside the home, children's education, dust pollution, noise pollution, building waste, difficulties attending appointments, loss of privacy and concerns about the relocation.

Potential positive impacts included, for example, effects on ability to heat homes, sense of wellbeing, home security, activities inside and outside the home, community pride, home safety, relationships with City West and the environment/carbon footprints.

Those who had contributed evidence to the HIA were invited to attend a Consensus Workshop. The purpose of the Workshop was to review the evidence, prioritise impacts and if possible propose recommendations.

1.8. Quantification of housing related impacts
The quantification of housing related impacts involved using numbers to describe current housing related impacts on health outcomes in the CW population and then an estimation of the change resulting from the improvement programme. The exercise was a pilot quantification process.

**Excess cold**
This category covers threats to health from sub-optimal indoor temperatures. In the baseline situation (without any improvement works) the number of people suffering harm ranges from 54 - 94. This includes 18-32 class 1 harms. This reduces overall to 6-11 including 2-4 class 1 harms.

**Intruders**
Entry by intruders covers unauthorised entry by intruders. In the baseline situation there was expected to be a range of 1038-1846 people who experience harm. After improvements are completed this is expected to drop to approximately 379-674.

1.9. Summary of impacts
Impact analysis, the characterisation of health impacts, was based on the analysis of all evidence that had been collected. It describes the evidence of potential impacts from the data collated and characterises the potential health impacts from these in terms of health determinants affected and the potential effects on health outcomes.

Health impacts were categorised by stages and by category of intervention; other potential impacts were also identified.

**Health impacts – by stages**
**Prior to commencement of works** – while City West customers are waiting for the works to begin they may be informed about the work that is to be undertaken and they may be consulted about the design of certain aspects of the work. Customers will develop expectations about the delivery of works and their involvement in decision making or experience of delays that may impact on their health. During this stage some customers may be relocated to, either temporary or permanent, alternative accommodation depending on
the nature and duration of the works and the availability of alternative accommodation. This process, the loss of community support networks and the condition of their destination accommodation/neighbourhood may have an impact on their health.

**During the works** – this will be a period of disruption for City West customers that will expose them to periods of exposure to hazards such as noise, light and air pollution. Disruptions may occur that affect all or specific groups. Vulnerable customers (e.g. elderly and children) are likely to suffer a greater degree of negative impacts while work is being carried out. Knowledge of resident vulnerabilities is needed to control impacts.

**Early post-works** – once the work is complete there may be an improved sense of wellbeing, reduced exposure to home hazards and increased ability to heat homes with positive short-term and long-term health impacts. Poorly managed expectations and issues over the quality of work and fault finding/snagging may have negative health impacts. Indoor air pollutants may impact on the health of vulnerable people in the short-term.

**Late post-works** – Key health determinants, for example, home security, home hazards and ability to heat homes, will be improved and may lead to a range of potential positive health impacts. However, if improvements are not maintained the long-term benefits of the improvements may be reduced. Increases in the cost of living may reduce the benefits of the improvement works. Over time the improved wellbeing associated with completion of the works may wear off. If general environmental improvements have not yet been made some health determinants will remain unchanged. Customers who gained access to employment and training through the programme may sustain benefits into the long-term if employment opportunities are maintained.

**Health impacts - by category of intervention**
The analysis by category of intervention should be viewed in conjunction with the above information on the health impacts by stages.

The terms ‘speculative’, ‘possible’ and ‘probable’ relate to the strength of the available evidence (see page 55 for further information).

**Affordable warmth interventions**
It is probable that the affordable warmth interventions will have a positive impact on health and wellbeing including a reduction in symptoms and morbidity levels for the chronically ill, a reduction in rates of acute illness and levels of excess winter morbidity and mortality. Children and people with chronic health conditions such as respiratory illness are likely to be the greatest beneficiaries of these interventions. Other vulnerable groups include older people, the disabled and people who spend the majority of their time in the home environment. The impacts are likely to be long-term (early and late post-works).

**Interventions to reduce home hazards and improve provision of amenities**
These improvements are designed to reduce home hazards and the risk of injury and poisoning. It is probable that these interventions will have a positive impact on health and wellbeing. The impacts are likely to be long-term (early and late post-works). Children and the elderly are likely to be the greatest beneficiaries of these interventions.
There is strong evidence from the literature that safety devices such as fire alarms and CO₂ detectors reduce the risk of injury and poisoning/suffocation. It is probable that the introduction of smoke and CO₂ detectors will have positive impacts on health and wellbeing. If the devices are well maintained the impacts are likely to be long-term (early and late post-work).

**Security improvement interventions**

Improvements to home security are likely to reduce the fear and incidence/experience of crime. It is probable that interventions to improve home security will have positive impacts on health and wellbeing. Good maintenance of the improvements, together with good maintenance of the general physical environment, will help to sustain these benefits into the long-term. With good maintenance, the impacts are likely to be long-term (early and late post-works). In terms of fear of crime children, women, people with mental illness and the elderly are likely to be the greatest beneficiaries. In terms of the experience of crime young men are likely to be the greatest beneficiaries.

**Improvements to the general physical environment**

Depending on timing of implementation and confounding factors (e.g. rising crime levels resulting from external factors), it is possible that interventions to improve the quality and maintenance of the general physical environment will increase levels of physical activity and reduce levels of associated chronic illness with positive impacts on health and wellbeing. Children and people who are at greatest risk of developing chronic illnesses and people with existing chronic conditions are likely to be the greatest beneficiaries.

There is evidence that well designed and maintained physical environments reduce the perception/fear of crime and the prevalence of crime. Health impacts can be physical, psychological and social. It is possible that improvements to the general physical environment, if well maintained, will have positive impacts on health and wellbeing. In terms of fear of crime children, women, people with mental illness and the elderly are likely to be the greatest beneficiaries of these interventions. In terms of the experience of crime young men are likely to be the greatest beneficiaries.

There is some evidence that improvements to the general physical environment will help to enhance community pride and identity. We can speculate that this will positively impact on health and wellbeing.

Improvements to the general physical environment, together with the introduction of more efficient heating/insulation systems to homes, may also have positive impacts on greenhouse gas emissions and climate change.

**Aids and adaptations for the disabled**

There is evidence that well-designed adaptations have beneficial, and/or preventative effects on physical (and mental) health. The benefits are long-term and extended beyond the disabled person to the health of other family members. The early implementation of well-designed adaptations to the home will probably have positive impacts on health and wellbeing for disabled recipients, carers and other family members.
**Structural work/maintenance**
Ensuring the structural safety of buildings, thereby removing or reducing hazards will **probably** have a positive impact on health and wellbeing.

Re-roofing may contribute to improvements to the general physical environment (please see above).

There was some evidence from stakeholders that standards of work and responses to requests for repairs/maintenance have improved since transfer to City West. We can **speculate** that these improvements may have a positive impact on health and wellbeing.

**Whole house and high-rise refurbishments**
Whole house and high-rise refurbishments involve a package of interventions that are addressed throughout this report. The potential health impacts of these interventions are identified elsewhere in this report. However, the process of delivery and the experience of customers in properties designated for whole house and high-rise refurbishments are different to other customers and have potentially significant implications to health and wellbeing.

Whole house and high-rise refurbishments typically involve the relocation of existing residents during the period of improvements. Relocation can either be temporary, while homes are refurbished, or permanent. Relocation may be voluntary or compulsory. There is evidence from the literature, including HIAs, that there are four categories of potential health impacts: **relocation, displacement, household income and neighbourhood sustainability**.

It is **probable** that there will be negative impacts on the health and wellbeing of customers who are relocated. Negative impacts may also be experienced by their family and friends/social networks. Vulnerable customers, such as the elderly, adolescents, people with learning, organisational or mental health issues may experience greater negative health impacts. Customers who are forced to relocate, or feel they have little or no control over the process, may experience greater negative impacts. Customers who are permanently relocated may experience greater negative impacts and potentially miss the benefits of improvements.

We can **speculate** that there may be negative impacts on the health and wellbeing of communities in destination areas.

**Other potential impacts**

**The process of implementation/construction**
There is evidence that concerns/stress prior to the commencement of work have a negative impact on health and wellbeing. The impacts of stress are independent of any concerns being realised. It is possible that stress prior to the commencement of works will have a negative impact on health, albeit relatively short-term.

It is **probable** that disruption during the implementation/construction phase will have a negative impact on health and wellbeing.
The severity of impact will vary across different population groups/individuals. Vulnerable groups, for example, the elderly, disabled and people with learning, organisational and mental health issues are likely to experience more severe impacts.

**Community pride and identity**
There is evidence that the housing improvement works will have a positive impact on community pride and identity. It is possible that this will have a positive impact on health and wellbeing.

There is evidence that improvements to the general physical environment have a positive impact on community pride and identity. There is evidence that increased pride and community identity have a positive impact on health and wellbeing. It is possible that this will have a positive impact on health and wellbeing.

**Climate change (excess summer heat)**
There is evidence that climate change is likely to have an increased impact on health and wellbeing over time. Impacts may result from increased periods/severity of excess summer heat (and excess winter cold). Potential negative impacts increase with age, particularly over the age of 75. Key informants were unable to identify if the improvements were designed to manage excess summer heat. However, stakeholders and key informants did identify (affordable warmth) interventions that help to keep homes cool in the summer as well as warm in the winter (e.g. cavity wall insulation) and thereby reduce the exposure of customers to excess summer heat. We can speculate that the improvements may mitigate the increasing negative health impacts of excess summer heat associated with climate change.

**Indoor air quality**
There is evidence that although contractors use low emission paints there are still potential health issues relating to the use of other building materials such as sealants and solvents. We can speculate that this may have a negative impact on the health of vulnerable groups such as those with existing respiratory illnesses, albeit short-term.

**Future developments**
Detailed plans to invest in some local shops/facilities are currently in development; they were not available at the time of writing. However, based on the available evidence, we can speculate that improvements to the availability and condition of local shops/facilities will have positive impacts on health.

1.10. **Summary of recommendations**
The evidence collated and analysed within the HIA lead to a set of recommendations designed to maximise positive, and reduce or eliminate negative health impacts associated with the improvement programme. These recommendations are summarised below. The recommendations will require debate and agreement by the City West Board before incorporation into an implementation management plan.

**Table 1 Summary of recommendations**

<table>
<thead>
<tr>
<th>Interventions to reduce home hazards and improve provision of amenities</th>
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<tbody>
<tr>
<td>• Remove/repair trip and fall hazards in the homes of older people.</td>
</tr>
<tr>
<td>• Remove/repair trip and fall hazards in the homes of people with young children.</td>
</tr>
<tr>
<td>• Consider removing home hazards, such as trip hazards, from the homes of other vulnerable groups.</td>
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</table>
- Consider providing safety devices, such as smoke and CO\textsubscript{2} detectors, to all homes.
- Consider providing safety devices, such as window bars, to vulnerable groups/individuals, e.g., families with children living in high-rise accommodation.
- Consider adopting a systematic, evidenced based approach to the identification and removal of home hazards.
- Investigate the plausibility of fully implementing the HHSRS assessment procedure including the identification of implementation of remedial actions identified by a full HHSRS survey.
- Consider conducting a more detailed/robust second stage HIA quantification process based on a more complete HHSRS process to demonstrate the benefits of further interventions to remove home hazards.

**Affordable warmth interventions**
- Consider prioritising affordable warmth interventions to vulnerable groups such as the elderly.
- Consider extending the range of interventions for vulnerable groups.
- Take into consideration the vulnerabilities of customers when planning the timing of implementation.
- Ensure consistent use of high quality insulation and other materials based on the best available evidence.
- Consider providing additional air vents in the homes of smokers.
- Consider noise issues relating to external vents.
- Ensure high standards of maintenance of the improvements into the long-term.

**Security improvement interventions**
- Work with partners to ensure appropriate levels of street lighting in all areas, particularly those near local facilities, to reduce fear and incidence of crime/anti-social behaviour.
- In addition to plans to improve CCTV coverage of properties, consider using CCTV in other (high-risk) areas, such as parking areas and open spaces.
- Work with partners to ensure maintenance of the local environment/improvements and provide customers and other users with information and mechanisms to report problems such as graffiti, vandalism and litter.

**Improvements to general physical environment**
- Develop and implement a coherent plan to improve the general physical environment in conjunction with partners and customers.
- Implement improvements to the general physical environment as early as possible and alongside home improvements.
- Consider the current City West best practice examples of environmental improvements and apply to all housing investment areas.
- Refer to the information provided by CABE and the recommendations of the Marmot Review Task Group 4 on the design and maintenance of the physical environment when developing City West land use policies.
- Work with partners to ensure maintenance of the local environment/improvements and provide customers and other users with information and mechanisms to report problems such as graffiti, vandalism and litter.
- Coordinate maintenance and future improvements with external partners.
- Conduct a greenspace typology study, or retrieve results from any conducted by Salford City Council’s greenspace planner/s, to identify the availability, accessibility and suitability of local greenspaces by type.
- Promote/provide customer access to a range of greenspace typologies through improved quality and range/type of greenspaces.
- Provide information and support to customers to promote ‘growing things’ at home and in local greenspaces/allotments.
- Work with partners to provide more “user friendly” environments in order to prevent injuries.
- Try to provide inclusive access to open and green spaces though good design and location of spaces.
- Try to provide a park or small supervised (overlooked) play area within walking distance of every home.

**Aids and adaptations for the disabled**
- Continue to provide high quality aids and adaptations at the earliest possible point in time.
- Ensure aids and adaptations are maintained to a high standard.
- Regularly review the aids and adaptation needs of disabled people.
- Publicise this service so that all groups are aware of it.
- Ensure City West staff and customers are aware of other sources of support such as Job Centre Plus Access to Work grants.

**Whole house and high-rise refurbishments – the residential relocation process**
- Develop a clear, coherent residential relocation strategy for whole house and high-rise refurbishments.
- Define open, transparent and equitable housing relocation systems and processes.
- Make the strategy publicly accessible through the City West website.
- Involve customers in the development of the strategy.
- Offer support to customers who are to be relocated as early on in the process as possible.
- Support all customers who are to be relocated in the form of relocation needs plans that identify health and other forms of support - before, during and after relocation.
- Tailor support to the needs of individuals, with particular attention to the needs of vulnerable customers.
- Prepare document templates with notification of address changes for GPs, social services, schools etc.
- Locate customers within, or as close as possible to, existing communities.
- Where possible give customers choices as to where they relocate.
- Inform City West staff and partners of relocation developments and support for residents.

**Climate change (excess summer heat)**
- Develop an explicit, multifaceted approach to managing excess summer heat including improvements to ventilation, green spaces and deciduous tree planting, orientation of any new buildings, green roofs and shade.
- Consider fitting windows that can be opened both at the top and bottom simultaneously (e.g. sash windows) to allow better cooling.

**Identification of vulnerable customers, information management and customer support**
- Enhance the City West information management system and data/information collection techniques to enable the identification of all vulnerable groups including those with learning, organisational and mental health issues alongside the information that is currently collected about physical health issues/vulnerabilities.
- Ensure all frontline staff have access to, and training in, the use of the flagging system and the identification of vulnerable customers, and potentially dangerous customers.
- Enhance the City West information management system to enable users to systematically identify physically or mentally vulnerable customers.
- Integrate the findings of customer surveys that identify vulnerable customers. Expand the list of questions in surveys to identify further vulnerable groups/individuals.
- Ensure that the system is accessible to all relevant staff, appropriate agencies and actors.
- Obtain advice on the support needs of vulnerable customers from Salford PCT/social services.

**Customer participation and involvement in decision making**
- Continue and expand the involvement of customers in decision making. Explore opportunities and techniques for involving a wider range of customers; for example, address the practical and financial issues associated with customers attending events such as those relating to access and childcare. Consider new and innovative techniques for customer participation, for example, using disposable cameras or voice recorders (for children or people with literacy difficulties) to capture local issues.
- Relate new techniques for capturing customer feedback to the continued use of HIA in City West.

**Construction safety**
- Extend safety awareness programmes to the general neighbourhood. As children are one of the main concerns, conduct awareness raising campaigns in local schools.
- Deliver leaflets on safety to houses in the general area of the interventions.

**Complaints and the Considerate Contractors Scheme (CCS)**
- Some customers may feel uncomfortable complaining about contractor work practices to site managers or directly to the CCS complaints team. Ensure that customers have additional information about making complaints directly to City West. Ensure that complaints are then relayed to site managers and the CCS complaints team.
- Provide information to City West neighbours on how they can complain if they are affected by
poor work practices.

**Phasing of works**
- Ensure that the phasing of works is designed to reduce the frequency and severity of disturbance for customers.
- Ensure the timing of interventions (e.g. fitting double glazing/doors) is sensitive to the vulnerability of customers.

**Partnerships**
- Strengthen links to other local agencies including Local Authority (LA) and PCT community engagement officers, Partners IN Salford and the LA’s regeneration team.

**Policy**
- To assist in demonstrating City West’s contribution towards implementation of the recommendations of the Marmot Review, consider appropriate utilisation of some of the framework of indicators provided in Annexe 2 of the Marmot Review.
- Consider strengthening the links between City West policy and local and regional policies.
- With the exception of commercially sensitive policies, make all City West policies publicly accessible.

**HIA capacity in City West**
- Adapt a HIA screening tool, from one of the numerous HIA screening tools currently available for use within City West.
- Designate responsibilities to screen and conduct HIAs in job role descriptions.
- Identify resources to screen for and conduct HIAs.
- Emphasise the importance of community engagement in HIA.
- Join the newly forming HIA support networks in the North West of England.
- Develop/adapt a guide to HIA for use within City West and relate to screening tool (particularly levels of HIA).
- Request information from other HIAs conducted in Salford that relate to City West’s work programmes.
- Make any future HIA reports publicly accessible by uploading them to the City West website and the HIA Gateway.
- In the longer term – monitor any developments of a combined HIA and Equality Impact Assessment (EqIA/EIA) screening tool to avoid duplication of work, promote integration of approaches and enhance the quality of both the HIA and EqIA screening approaches.
- Ensure continued involvement of the ALS group in the development and implementation of the findings of this HIA and use the ALS group to develop an integration/management plan for the findings of the HIA.

**The process of implementation/construction and communication with customers**
- Provide a minimum of 2 and preferably 4 weeks’ notice before work commences and provide detailed information on the nature and phasing of work to customers.
- Provide customers with regular updates and early prior notice of any delays/cancellations.
- Consider the use of alternative forms of communication, for example, videos and audio CDs.
- Consider increasing the frequency of the City West Newsletter and the possibility of collaborative newsletters with partners in Salford, for example Salford City Council or Primary Care Trust (PCT).
- Include answers to Frequently Asked Questions (FAQs) in a regular feature about the improvements in the City West newsletter; repeat on website.
- Consider including statements from residents who have experienced the work being carried out in information about the improvement programme.
- Try to conduct more face to face visits to the homes of affected people, particularly vulnerable people.

**Future developments**
- Future developments that include improvement works, building on existing open space or site clearance and rebuild should take into consideration the recommendations of this HIA and the relationship between the regeneration process and health.
- Any future investments in local shops/facilities should take into account the needs of vulnerable people, the importance of external environments (e.g. street lighting, CCTV, quality of materials and high standards of maintenance). The potential negative health impacts of fast-food takeaways and tanning/sun-bed salons should be acknowledged and if possible avoided.
Publication of HIA findings
- A short, plain English summary should be made available on the City West website with reference to this document and the detailed technical report.
- The HIA reports should be uploaded to the HIA Gateway site.

Outline management/implementation plan
- An example of an outline management/implementation plan is shown in the body of this report. The plan needs to be developed by City West staff, in consultation with the IMPACT team, as it necessitates a detailed understanding of the resources that are available for implementation.
- We recommend that relevant HIA steering group and City West HIA Action Learning Sets group members are given opportunities to contribute to the detailed development and delivery of the plan. This will help to ensure the effective delivery of the recommendations and the continued development of HIA capacity within City West.

1.11. Limitations
There is always a necessary compromise between brevity and rigour in any study and there were a number of limitations to this study, these are identified within the body of the report.
2. Introduction

City West Housing Trust commissioned IMPACT—the International Health Impact Assessment Consortium—based in the division of Public Health, a WHO Collaborating Centre at the University of Liverpool, to undertake a comprehensive Health Impact Assessment (HIA) of their housing and neighbourhood improvement programme. In addition, IMPACT was commissioned to develop HIA capacity within City West by using an Action Learning Sets approach. The HIA was undertaken between August 2009 and July 2010. City West intend to use the findings of the HIA to improve the health (and reduce health inequalities) of their customers; this is in line with their Key Performance Indicators.

HIA is concerned with improving health and reducing health inequalities. The aim of HIA is to inform and influence policy decision-making by enabling decision-makers to consider the health implications of their policies during the policy planning process. It is a systematic, evidence-based process that identifies what the potential health effects of a new policy, programme, or project, such as the improvement programme, might be on a particular group of people, such as local residents. It considers which key health determinants, e.g., living conditions, social and community networks and lifestyles, will be affected and how this in turn will impact on the health and wellbeing of the population. HIA considers whether the project will affect physical, emotional and social wellbeing, as well as possibly affecting ill-health. Recommendations are then made to the decision-makers to mitigate potential health risks and enhance health benefits.

This report describes the scope of the assessment, including the methods and process, the data collected and the evidence defined from these data. The potential health impacts emerging from the analysis of this evidence will then be defined mainly in broad, qualitative terms. Finally, conclusions and recommendations for the HIA Steering Group are presented. It is envisaged that this report will then be submitted to the City West Board for their consideration.
3. Summary of the improvement programme

City West is responsible for approximately 14,500 properties in four areas in West Salford. The four Community Housing Improvement Areas (CHIAs) are as follows:

- Eccles, Barton and Winton
- Irlam and Cadishead
- Little Hulton, Walkden and Worsley
- Swinton and Pendlebury

The improvement programme will ensure that all of the properties meet or exceed the Governments Decent Homes Standard. This will be accompanied by additional investment in the general physical environment/neighbourhood improvements.

Over a ten year period City West have committed to investment in improvements that include:

- Modernising kitchens
- Modernising bathrooms
- Re-roofing
- Providing external doors with secure locks
- Providing thermal insulation
- Replacing storage heaters and warm-air heating with modern radiator systems
- Providing double glazing with secure window locks
- Providing smoke and carbon monoxide detectors
- Providing external lighting to homes
- Providing environmental improvements
- Providing better security and lighting for blocks of flats.
- Providing a better funded and more efficient aids and adaptations service for disabled customers that would shorten waiting times and clear any backlog within five years.
- Plans to address the problems experienced in properties built from non-traditional materials, e.g. those with concrete exteriors.
- Plans to improve and maintain any ‘unadopted’ roads and footpaths that it owns.
- Providing more off-road parking facilities.
- Providing play areas for children and young people (Based on the pre-transfer document, Salford City Council, 2007).

Other aspects of the improvement programme and related areas (based on information from the steering group) include:

- Whole house and high-rise refurbishments
- Repairs and maintenance programme
- Communities programme
- Housing management programme
- Community energy savings programme
- Kick start programme
- Affordable warmth strategy
- Environmental strategy
City West are spending over £235 million on housing and neighbourhood improvements during the initial stage of the project (up to April 2015).

Figure 1 shows the distribution of City West housing and open spaces in Salford.

**Figure 1 City West housing and open spaces (Salford ward map)**

City West housing areas are shown in red and open/greenspaces spaces are shown in green. Mapping data provided by City West.

The properties are dispersed over a large geographical area. Large socio-economic variations exist across the area and this is reflected in the physical condition and characteristics of the neighbourhoods. The properties vary in terms of types, age and condition. Information on property types and ages is contained within appendix 3 (page 139).

A detailed survey of the neighbourhoods and properties was not possible as a result of the wide variations in, and dispersal of, the properties.
4. Methodology

4.1. Introduction
This section describes the procedures, methods and limitations of this HIA.

4.2. Procedures and methods
The assessment was conducted using a generic Health Impact Assessment (HIA) methodology between August 2009 and July 2009 (Figure 2). HIA methodology is underpinned by a set of values first defined by the World Health Organisation in 1999, shown in Table 2 (WHO, 1999).

HIA uses a socio-environmental model of health, described by Dahlgren and Whitehead (1991) showing the main determinants of health as layers of influence (Source: WHO, 1999). It illustrates how the health status of a population is negatively affected by their exposure to various risk factors and conditions, enhanced by various positive factors such as feeling in control, and protected by factors such as social support. A HIA will assess how a project will affect these health determinants and ultimately a population’s health outcomes.
Table 2 HIA principles and values

- **Democracy**, emphasizing the right of people to participate in a transparent process for the formulation, implementation and evaluation of policies that affect their life, both directly and through the elected political decision makers.
- **Equity**, emphasizing that HIA is not only interested in the aggregate impact of the assessed policy on the health of a population but also on the distribution of the impact within the population, in terms of gender, age, ethnic background and socio-economic status.
- **Sustainable development**, emphasizing that both short-term and long-term as well as more and less direct impacts are taken into consideration.
- **Ethical use of evidence**, emphasizing that the use of quantitative and qualitative evidence has to be rigorous, and based on different scientific disciplines and methodologies to get as comprehensive assessment as possible of the expected impacts.

Source: WHO, 1999

Figure 3 The socio-environmental model of health

4.3. Scoping
The basic scope of the assessment was determined by the HIA Steering Group. The membership included representatives from City West, City West contractors, Salford City Council, a tenant representative (City West customer) and IMPACT.

The aim of the HIA was:

‘To identify the potential health effects of the City West Housing and Neighbourhood Improvement programme across the Community Housing Investment Areas (CHIAs) in West Salford, including their differential distribution, by undertaking a HIA of the improvement programme using a validated generic HIA methodology.’
In Particular:

- To identify the main impacts of the proposals on key health determinants, e.g., living conditions and social and community networks;
- To describe the potential impacts of the proposals on health outcomes of the population (qualitative);
- To describe the differential distribution of impacts across the population sub-groups such as people with long-term conditions, people with disabilities, ethnic minorities, people on low incomes, women, children and young people, older people and people in different CHIAs/geographical areas;
- To identify priority impacts resulting from the improvement programme;
- To make recommendations to the project’s HIA Steering Group concerning the implementation of the housing improvement programmes and to assist City West in targeting resources in order to increase the positive and decrease, or eliminate, the negative health impacts of the programme;
- To monitor and evaluate the process and impact of the HIA;
- To ensure the HIA project is delivered effectively and efficiently.

The HIA is described as a Comprehensive HIA involving secondary (existing) and primary (new) data collection and analysis.

In addition to the terms of reference for the HIA, describing the aims, objectives and methods, a scoping report was developed which described the geographical boundaries, and the outcomes from a stakeholder, data and document mapping process. During this mapping process, community and organisational stakeholder categories to be engaged were identified, including groups, organisations and named contacts. The indicator map defined relevant data to be collected, the specific indicator categories, operational definitions and data sources. In addition, relevant official documents to be collected and analysed were also defined. This process was assisted by information from the Action Learning Set group.

4.4. Policy Analysis

The policy analysis involved identifying the policy context of the proposals. Local, regional and national strategies relevant to the proposals, were collected, reviewed and analysed. The process of identifying relevant policies, particularly organisational level policies, was aided by the ALS group.

4.5. Profiling

Developing the profile also sets the context by describing the baseline health and socio-demographic position of the population affected by the proposal, in this case residents and communities proximal to and including the improvement areas. Developing the profile involved searching, collecting and analysing secondary data from a range of datasets, e.g., mortality and morbidity rates across the region.

4.6. Literature review

A review of relevant evidence from the published literature was undertaken. The purpose of this was to define published evidence of the effects of similar programmes/developments, and where possible the effects of changes to these operations, on the health of populations. In addition, up to date evidence of the effects of key determinants known to be affected by the development such as transport, employment, regeneration, noise, air quality and
accidents and their impacts on health was also reviewed. Databases searched included the World Health Organisation Health Evidence Network Centre for Reviews and Dissemination, the Campbell Collaboration systematic reviews database, the NHS HIA Gateway and the NHS National Library for Health, Evidence Based Public Policy. Search terms and their combinations included, housing, housing intervention, housing investment, housing refurbishment, social housing, affordable warmth, built environment, regeneration, noise, air quality, road traffic, transport, travel, employment, health, effects and impacts.

4.7. Participatory approaches
The purpose of participatory qualitative approaches is to gather evidence from the experience, knowledge, opinion and perceptions of stakeholders and key informants.

‘Stakeholders’ are defined as individuals or groups of people who have a stake in the policy or project under investigation; ‘key informants’ are experts or specialists in a specific policy field such as the Housing Health and Safety Rating System (HHSRS). Categories of community stakeholders, organisational stakeholders and key informants were defined in a mapping process. From this stakeholder map, groups and individuals to be engaged in the HIA were identified by random (in the case of City West customers), purposive and snowballing sampling methods (for organisational stakeholders and key informants).

Stakeholders were invited to attend a series of workshops. Unfortunately the number of people who accepted invitations to the workshops was very low, when compared to similar HIAs, and the number of attendees was even lower, perhaps symptomatic of potential issues of community engagement in West Salford. To address the issue of low representation three additional approaches were undertaken by IMPACT, as follows:

- A representative from IMPACT attended the annual City West customer feedback event to pose questions relating to the HIA in one of the workshops and identify individuals that would like to be interviewed for the purposes of the HIA.
- IMPACT conducted a series of one to one interviews with stakeholders to discuss their understanding of the issues and health impacts of the improvement programme.
- IMPACT commissioned a (DELPHI) telephone survey of a 5% sample of City West Customers to identify issues/impacts and assess consistency/consensus with the findings of the one to one interviews/workshops.

During the same period the interviews with some organisational stakeholders and key informants were also undertaken.

4.8. Quantification of health impacts
We adapted a Housing Health and Safety Rating System (HHSRS) based approach to assess potential health impacts resulting from housing improvement programme. This approach applied the HHSRS to the City West housing stock. Priority hazards were identified and the impact on health outcomes was calculated before and after improvements.

4.9. Impact analysis
Those who had contributed evidence to the HIA were invited to attend a Consensus Workshop. The purpose of the Workshop was to review the evidence, prioritise impacts and
if possible propose recommendations. The attendance at this workshop, although higher than the initial workshops, was also limited.

Impact analysis, the characterisation of health impacts, was based on the analysis of all evidence that had been collected. It describes the evidence of potential impacts from the data collated and characterises the potential health impacts from these in terms of health determinants affected and the potential effects on health outcomes.

4.10. Recommendations
Practical recommendations, where possible evidence based, are made founded on the information available at the time of writing. The recommendations may or may not be accepted by the proponent’s decision-making process. An outline management/implementation plan has been provided to serve as a basis for the implementation of recommendations. This plan should be developed by City West based on their detailed understanding of the availability of resources. We recommend that relevant HIA steering group and ALS group members are given opportunities to contribute to the detailed development and delivery of the management/implementation plan. This will help to ensure the effective delivery of the recommendations and the continued development of HIA capacity within City West.

4.11. Limitations
There is always a necessary compromise between brevity and rigour in any study and there were a number of limitations to this study. There was a reliance on the timely access to data from external sources and this presented some issues.

Despite requests to Salford Primary Care Trust (PCT) for local level (i.e. below district level) community profiling data, it had not been made available at the time of writing. As a result data at district level (Salford PCT and LA) was used together with data from a local survey conducted by City West. Although not uncommon in similar HIAs, this was not ideal. Local level Indices of Multiple Deprivation data (IMD, 2007) were used as a proxy measure to spatially illustrate local level inequalities. Any issues pertaining to quality and comparability of data are identified within the community health profile section of this report.

The resources available for quantification in the HIA were limited, particularly given the complexity of the housing and neighbourhood interventions (multiple interventions, multiple sources of deprivation and multiple confounders), and this is reflected in the findings. Specific limitations are identified within the quantification section of this report.

Finally, the low attendance at the HIAs workshops limited the representativeness of the HIAs engagement process. However, the subsequent additional approaches adopted by IMPACT helped to address this issue.
5. Policy Analysis

5.1. Introduction
This section presents an analysis of the City West Housing Improvement Plan (5 year Business Plan) and associated policy documents. The analysis examines the rationale and context of the plan relative to policies for housing improvement and the built environment and the wider policy context, particularly with regard to contributing to reducing inequities and inequalities in health locally.

5.2. International Policy Drivers
There have been two recent policy documents at international level that will bring a renewed focus on reducing inequities, or inequalities, in health. These are the report of the WHO Commission on the Social Determinants of Health (CSDH), Closing the Gap in a Generation (WHO, 2008) and Solidarity in Health: Reducing Health Inequalities in the EU published by the European Commission (EC, 2009).

Closing the Gap in a Generation, marshals the evidence on what can be done to promote health equity and to foster a global movement to achieve it. As the nature of the health problems all countries have to solve converge, social and economic policies have an impact in determining the life chances of a child. The quality of society can be judged by the quality of its population health, how fairly health is distributed across the social spectrum and the degree of protection provided from disadvantage as a result of ill-health.

The European Commission regards the extent of the health inequalities between people living in different parts of the EU and between socially advantaged and disadvantaged EU citizens as a challenge to the EU’s commitment to solidarity, social and economic cohesion, human rights and equality of opportunity. Since health inequalities are strongly influenced by individuals, governments, stakeholders and communities, they are not inevitable. Action to reduce health inequalities means tackling those factors which impact unequally on the health of the population in a way which is avoidable and can be dealt with through public policy.

5.3. UK National Policy Drivers
While there is a wider policy context for all the determinants of health, central policy making has become especially dynamic over the duration of this HIA, being set against the global financial crisis and a period of recession. More recently, the policy climate is substantially affected by anticipated “far reaching cuts” regardless of the policy proposals that were introduced in the run-up to the General Election.

This being so, a pragmatic approach has been adopted in order to assist City West focus on those policy areas most likely to engage them in the near future with local policies and interventions that will optimise their future contribution to improving health and reducing health inequalities.
### Public Health


Following on from CSDH, also chaired by Sir Michael Marmot, this review is a response to the recommendation in CSDH that national governments should develop and implement strategies and policies aimed at improving health equity. The review proposes an evidence-based strategy for reducing health inequalities from 2010, including policies and interventions that address the social determinants of health. There are nine key messages and an annexe containing a framework of indicators to assess performance improvement in delivering the recommendations.

**DoH (2006) Our Health, Our Care, Our Say**

Public Health White Paper on the development of primary and community care services, shifting care from hospitals to more community-based settings.

**DoH (2007) World Class Commissioning**

Change from traditional models of commissioning health services. Organisational competencies identified include engagement with public and patients.

**DoH (2007a) Our NHS, Our Future**

Localise where possible, centralise where necessary uses term “health centre” rather than polyclinic.

**DoH (2008) NHS Next Stage Review: Our vision for primary and community care**

Lord Darzi’s vision for how services will continue to grow and develop over the next ten years. Five pledges including “you will be involved”.


The purpose, principles and values of the NHS in England, bringing together a number of rights, pledges and responsibilities for staff and patients alike.

**DoH (2008a) Health Inequalities: Progress and Next Steps**

This document updates the Government approach to the 2010 health inequalities Public Service Agreement targets, assessing what has and has not worked, and setting the direction of travel beyond 2010.

**DoH (2008b) Systematically Addressing Health Inequalities**

Describes the diagnostic model used by the Health Inequalities National Support Team to identify at a local level what specific interventions are needed to improve service outcomes (for example industrial scale interventions) and highlights the key lessons learned.

### Built Environment/Housing

There have been some major central policy changes with regard to housing matters since the introduction of the Housing and Regeneration Act 2008 (OPSI, 2008), parallel with the inception of City West and housing stock transfer in Salford.

**HMG (2009) Building Britain’s Future**

Sets out the next generation of public service/policy reforms, with a draft legislative programme of 11 bills and a number of key policy papers, including the Schools White Paper, the Care and Support Green Paper, the Energy and Climate Change White Paper and the Life Sciences Blueprint.

**CLG (2007a) Sustainable Communities Act**

The Sustainable Communities Act aims to promote the sustainability of local communities. It begins from the principle that local people know best what needs to be done to promote the sustainability of their area, but that sometimes they need central government to act to enable them to do so. It provides a channel for local people to ask central government to take such action. It is also a new way for local authorities to ask central government to take action which they believe would better enable them to improve the economic, social or environmental well-being of their area. This could include a proposal to transfer the functions of one public body to another.

**CLG (2008) Communities in Control. Real People Real Power**

A government White Paper to strengthen local democracy by increasing participation, enhancing the power of communities and helping people up and down the country to set and meet their own priorities.
<table>
<thead>
<tr>
<th>Reference</th>
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<tr>
<td>National Housing Federation (2009) A Our Vision Real Actions: Corporate Plan 2009-2011</td>
<td>The Homes and Communities Agency (HCA) was formed in December 2008 in the midst of a severe economic downturn. The Plan outlines priorities as the government’s housing and regeneration agency for England, seeking both to stimulate housing supply and meet demand. The Plan establishes new approaches, unavailable prior to the creation of the HCA, for creating a firm basis for programme delivery through increasing the equity component of its’ spending in order to generate receipts when the market improves, exercise greater flexibility over the profiling of expenditure and outputs, leveraging other sources of funding and increasing the use of its’ own land. The HCA aims to be at the forefront of best practice in environmental and quality standards by maintaining high standards for quality in urban design, environmental excellence and housing delivery that achieve value for money. Through the Single Conversations held with local authorities, the HCA will continue to work with its partners – housing associations, private sector developers, local authorities and other delivery agencies. Over the next two years, the HCA will invest over £13bn on behalf of government ensuring the quick delivery of over 120,000 new homes, the overwhelming majority of which will be affordable. Improving housing supply, particularly where housing growth is needed and to renew existing stock where it is not to bring thousands of homes up to a decent standard, further retrofitting them to achieve higher levels of environmental sustainability. Provide targeted support for the vulnerable and disadvantaged. Tap into the financial power of the private sector through PFI and joint ventures and by attracting new sources of investment. Continue to buy, sell, clean up and manage land.</td>
</tr>
<tr>
<td>OPSI (2008) Housing and Regeneration Act 2008</td>
<td>Created the Homes and Communities Agency (HCA) and the Office of Tenants and Social Landlords (TSA). HCA: • Improve quality and supply of housing in England • Secure regeneration or development of land or infrastructure in England • Support the creation, regeneration or development of sustainable communities or their continued well-being • Contribute to sustainable development and good design • Modelled on the Urban Regeneration Agency, replacing English Partnerships and taking on Housing Corporation (abolished) functions with regard to investment in housing TSA: • Regulate social housing in England provided by registered providers (including current RSLs) • Assumes the regulation functions of the Housing Corporation (abolished)</td>
</tr>
<tr>
<td>TSA/Audit Commission (2009) TSA and the Audit Commission (AC) Memorandum of Understanding July 2009</td>
<td>The MoU sets out how the two organisations will work together in regulating and inspecting providers of affordable housing, and supporting the role of local authorities in their strategic housing role (including ALMOs). The TSA will commission inspections from the AC. In return, the AC with responsibility for coordinating the delivery of CAA and as gatekeeper in the local authority sector will require information from the TSA to inform the CAA for each area.</td>
</tr>
</tbody>
</table>
Transport

| DfT (2005) Managing our Roads | This is the Department of Transports’ key long-term strategy document for the UK road network, setting out the likely challenges for the next 20-30 years. |
| DfT (2009) The Future of Urban Transport | A paper highlighting why our cities and large towns are so important and why effective transport systems are essential to making them successful. It considers how these transport systems affect different areas – economy, health and urban environment - both negatively and positively and proposes solutions which can produce positive outcomes to all of them: triple win outcomes. The paper then puts forward a vision of urban transport that envisages enhanced mobility through a wider choice of journey, reduced congestion, better health and enjoyable urban spaces. The steps already taken towards this vision are recognised: for example the flexible legislative and policy framework available to local authorities. |

5.4. Regional Policy Drivers – North West

Public Health

| NHS NW (2008) Healthier horizons for the North West: Our NHS Our Future | Each of the nine regional Strategic Health Authorities (SHAs) involved in the Darzi Next Stage Review published their visions for better healthcare. |

Built Environment/Housing (4NW)

| NWDA (2009) NW Regional Housing Strategy | This Regional Housing Strategy for the North West has been produced against a backdrop of significant structural change that has called for new approaches to advance and develop the 2005 Strategy. Key issues that have arisen throughout the consultation period for the revised strategy to address are: |
| | • The impact of the credit crunch on housing markets that were already extraordinarily dynamic; |
| | • A changing demography; |
| | • Identifying routes to establish or strengthen links between housing and economic agendas; |
| | • Ways of improving access to affordable homes whilst continuing to restructure vulnerable markets; |
| | • Spatially prioritising market intervention to ensure that limited public resources are used in the most effective way; |
| | • Ensuring greater spatial prioritisation of market intervention; |
| | • Optimising the role of housing in tackling climate change and addressing fuel poverty. |
| | Setting a new strategic direction, the Strategy looks to align housing with other key strategies on the economy, planning, health, environment and transport. It sets out a framework for the five sub-regions to shape their housing strategies and work with their districts in establishing market interventions that will create balance across their housing markets. |
| | Subsequently, in light of the establishment of the HCA and accelerated development of a single integrated Regional Strategy, it has been agreed that the Regional Housing Group will be replaced by a Housing and Regeneration Board, working in partnership with the HCA, more closely integrating housing and regeneration with a greater focus on place.. |
## Economic

| NWDA (2006) North West Regional Economic Strategy | The draft NW RES was subject to a desktop HIA, the findings being that while the document was coherent and well-presented, there was no indication that the potential health effects of the RES had been systematically considered during its review stages. Four recommendations were made:  
- To reduce labour market inequalities  
- Increase the positive and mitigate the negative health effects of employment  
- Ensure a positive transition from inactivity to employment  
- Integrate health into future RES reviews |

## 5.5. Local Policy Drivers

### 5GM City Region Policy Drivers

| New Economy (2009) Prosperity for All: Greater Manchester Strategy | A first strategy for the newly-configured Manchester City Region and founded on an economic review, this document sets out the strategic priorities for the new region until 2020. The Vision:  
- By 2020, the Manchester city region will have pioneered a new model for sustainable economic growth based around a more connected, talented and greener city region where the prosperity secured is enjoyed by the many and not the few.  
Our principles:  
- Secure our place as one of Europe’s premier city regions, synonymous with creativity, culture, sport and the commercial exploitation of a world class knowledge base.  
- Compete on the international stage for talent, investment, trade and ideas.  
- Be seen and experienced as a city region where all people are valued and have the opportunity to contribute and succeed in life.  
- Known for our good quality of life, our low carbon economy and our commitment to sustainable development.  
- Create a city region where every neighbourhood and every borough can contribute to our shared sustainable future.  
- Continue to grow into a fairer healthier, safer and more inclusive place to live, known for excellent, efficient, value for money services and transport choices.  
- Deliver focused and collegiate leadership based around collaboration, partnerships and a true understanding that together, we are strong. |

### Transport

| Greater Manchester Joint Transport Team (2008) Greater Manchester Local Transport Plan 2 – Salford Annexe (2008) | The Salford Annexe of LTP 2. Details local transport plans with regard to local and wider priorities for regeneration; congestion; road safety; accessibility; air quality and environment; asset management and maintenance issues; use of resources and future plans. |

| Greater Manchester Joint Transport Team (2008) Greater LTP 2 in full. The Plan sets out our five-year programme as the starting point for |
Manchester Local Transport Plan 2 2006/07-2010/11 delivering our longer-term vision and strategy for Greater Manchester. It sets out targets that are fully in line with the Government's White Paper on Transport and the LGA/DfT Shared Priorities and are consistent with the funding guidelines set by central government. It also describes how the plan will be monitored and managed over time. Expansion of Metrolink remains key for Greater Manchester, working hard with DfT to reach agreement on the expansion of the network in line with the Government's declared objective. Renewal and refurbishment of the Phase 1 and 2 network continue. Another key component of the Plan and the Transport Innovation Fund pump priming bid, is the development of corridor partnerships with key delivery organisations. These partnerships are looking at how we can integrate regeneration and land-use plans in individual corridors with transport modes, including the use of other complementary measures including travel planning, technology and demand management. They will commit partners, via a local area agreement mechanism, to delivery of their components of the plan and work is well advanced in the first four corridors. Buses remain central to our delivery plans and work continues with the bus industry and other stakeholders to develop robust bus and accessibility strategies as part of LTP2.

NHS Salford
This sub section identifies policies and strategies published by NHS Salford and in the public domain.

<table>
<thead>
<tr>
<th>Salford City Council (2008) Salford Joint Strategic Needs Assessment 2008-2013</th>
<th>The Director of Public Health, the Director of Adult Social Services and the Director of Children’s Services undertake a Joint Strategic Needs Assessment (JSNA), which looks forward over the next 3 to 5 years taking account of the care needs of the whole population. It is the means by which Primary Care Trusts and Local Authorities will describe the future health, care and well-being needs of local populations and the strategic direction of service delivery to meet those needs. It forms the basis of the duty to co-operate between PCTs and local authorities, contained in the Local Government and Public Involvement in Health Act (2008) and takes account of data and information on inequalities between the differing and overlapping communities in local areas and supports the meeting of statutory requirements in relation to equality audits.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS Salford (2009) NHS Salford Strategic Plan 2009-2014</td>
<td>Five year strategic commissioning plan, including plans for transforming community services, of which City West should be aware. A wide range of initiatives include for example referral systems to support and manage ill health caused by fuel poverty and poor housing; smoke free cars and homes, referral to smoking cessation services; increases in cancer screening programmes; securing the views of seldom heard and service resistant populations; access to psychological therapies for those with depression and anxiety and to keep people with MH issues in work; extensive community interventions to maintain healthy weight. The focus on reduction of health inequalities is indicated by initiatives likely to have greatest impact, such as stopping smoking, smoke free homes, community food workers, health trainers, teenage pregnancy support, health walks, social support, breastfeeding support, social prescribing and uptake of cancer screening.</td>
</tr>
<tr>
<td>NHS Salford (2009a) COPD Services Strategy in Salford 2008-2013</td>
<td>This strategy provides a strategic framework for the commissioning of COPD services for Salford, assessing the burden of respiratory disease, looking at the evidence base on best practice in respiratory services, reviewing current services in Salford and identifying gaps in service provision. Recommendations are made on the improvements needed to deliver a world class COPD service.</td>
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<tr>
<td>NHS Salford (2008) Estates Strategy 2008-13</td>
<td>The purpose of the estate strategy is to bring together in one document a range of investment proposals and changes to the estate that will enable the Trust to provide safe, secure, high-quality buildings capable of supporting current and future service needs as described in its commissioning and service strategies. Inevitably, given both the size and the diversity of the PCT’s services and its estate, the estate strategy is complicated and has a number of different strands that are planned to respond to the very dynamic nature of Primary Healthcare delivery.</td>
</tr>
</tbody>
</table>
| NHS Salford (2008a) Salford’s Alcohol Strategy 2008-11 | This strategy focuses on ensuring that those who drink do so without causing harm to themselves or others and that those who experience negative consequences receive appropriate support. The aim is to reduce the harm caused by alcohol, including harm associated with crime, health, the economy and family and social networks. Its objectives are to:  
- Ensure that those who drink alcohol are able to do so safely and responsibly.  
- To reduce the impact of alcohol on ill-health and life expectancy.  
- To reduce alcohol-related crime and anti-social behaviour.  
- To reduce the harm caused to children and young people by alcohol use. |
| NHS Salford (2008b) Salford Carers Strategy | This strategy concentrates particularly on the needs of adult carers that are those adults providing care for other adults and those parents providing care for children with disabilities. The strategy and action plan sets out a vision for carers’ services for the next three years and identifies how these targets can begin to be met. The Carers Strategy Monitoring Board will oversee the implementation of the strategy and the Principal Officer (User Carer Issues) in the Community Health and Social Care Directorate of Salford City Council will take responsibility for ongoing co-ordination of the strategy. |
| NHS Salford (2008c) Salford Immunisation Strategy 2008-11 | Immunisation falls under the Corporate Pledge to “Protect people and help everyone enjoy longer healthier lives” with the Primary Care Strategy setting out the role of vaccination within Salford. The aims of this strategy are:  
- Reduce the risk of vaccine preventable disease by maximising vaccination uptake.  
- Reduce health inequalities in relation to accessibility to vaccine services. |
The objectives of this strategy are to:
- achieve the national targets for uptake of vaccination through commissioning services that raise awareness of the importance of immunisation across the community;
- ensure that Salford has a trained and skilled workforce to deliver immunisation programmes with the knowledge to inform families; deliver equitable immunisation programmes that are flexible to meet the needs of local communities; performance manage commissioned services to ensure delivery and maximise uptake of immunisations.
- To horizon scan to identify risks and trends in population demographics and identify new vaccine developments to enable workforce and service delivery planning.

**NHS Salford (2005) Older People’s Wellbeing Strategy**


With new PCT duties for general dental service provision, the strategy reviews the oral health needs of the population of Salford, setting thirteen priorities for action, focusing on prevention and improving access to dental services.

**NHS Salford (2006a) Salford Tobacco Control Strategy 2006-10**

Possibly the most important strategy in terms of reducing ill health and health inequalities, the aim is to significantly improve health and reduce health inequalities in Salford in the longer term by reducing the incidence of smoking related diseases in Salford. Its objectives are to:
- reduce the numbers of young people smoking
- reduce the prevalence of smoking by adults
- reduce exposure to environmental tobacco smoke (second hand smoke) in workplaces, homes and public places
- lead a publicity and marketing campaign to raise awareness both of the dangers of second-hand smoke and of our services to reduce smoking and support smokers.

**NHS Salford (2006b) Sexual Health Strategy**

An important factor in health inequalities in Salford, the strategic aims are:
1. To improve the sexual health of the population of Salford as a whole.
2. To narrow sexual health inequalities.

The practical objectives are:
1. To reduce the transmission and prevalence of HIV and STIs by focusing HIV prevention and sexual health promotion that also prevents unintended pregnancy, on local need.
2. To provide high quality, comprehensive integrated sexual health services for Salford people that reduce stigma and are supportive to sexual well-being.
3. To link to the Teenage Pregnancy Strategy to ensure sexual health services are accessible to young people and dedicated teenage sexual health services are networked into the whole.
4. To commission appropriate specialist HIV services.
5. To provide adequate and equitable access to NHS Termination of Pregnancy (TOP) services.

**NHS Salford (2006c) Salford Heart Strategy**

**NHS Salford (2006d) Patient and Public Involvement Strategy**
<table>
<thead>
<tr>
<th>Publication</th>
<th>Description</th>
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<tbody>
<tr>
<td>Salford City Council (2006)</td>
<td>Part of the bigger picture: Salford Affordable Housing Strategy</td>
</tr>
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</table>
| Salford City Council (2008a) | Salford's Affordable Housing Strategy - "Building Sustainable Communities: Affordable Housing IN Salford". Aims to:  
- Maximise investment for the provision of affordable housing in Salford  
- To develop the appropriate processes, policies and strategies to tackle the shortage of affordable housing in Salford  
- To continue to improve our understanding of affordable housing need in Salford. |
| Salford Local Area Agreement 2008-2011 | Presents tabulated data for baselines and targets for both National Indicators and Vital Signs for the period 2008-2011. |
| (Salford City Council, 2009) | Shaping our place. Housing Policy in Salford 2008-2011 |
| Partners IN Salford (2009) | Having considered detailed information about Salford people, the housing market, need and demand for housing and the condition of housing, the strategy identifies five strategic priorities for housing:  
- Improve the quality of homes for all residents  
- Ensure a greater choice of homes - reshape housing for future needs and aspirations  
- Provide excellent housing services to underpin sustainable neighbourhoods  
- Support the opportunity to live independently in all communities  
- Use joint working to improve the housing offer. |
| Connecting People to Opportunities: Salford Sustainable Community Strategy 2009-2024 | The Sustainable Community Strategy sets out what the local strategic partnership believe is needed to achieve their vision of the City in 2024. The seven partnership themes are:  
- a healthy city  
- a safe city  
- a learning and creative city  
- a city where children and young people are valued  
- an inclusive city  
- an economically prosperous city  
- a city that’s good to live in  
Each theme has its own vision and series of objectives. In addition, there are four cross-cutting themes:  
- narrowing the [inequalities] gap  
- equality and diversity  
- community engagement and empowerment  
- community cohesion. |
| West Salford Regeneration Framework (2008b) | The Regeneration strategy outlines the policy environment (circa 2006/07), but seems not to explicitly indicate how this will contribute to reducing inequalities in health for either West Salford residents or City West customers in particular. It concludes that there is a robust high level policy context for the development of West Salford, but notes that the LDF has yet to lay out the new planning context; that there is a weak local policy framework that could be considerably strengthened, not least by bringing together several ageing local strategies with emerging new ones, focussing on neighbourhood/town centres; tourism and leisure; the public realm and linear corridors. City West is engaged in various parts of urban regeneration scoping exercises such as the Town Centre Task Group, Bridgewater Canal Master planning and Regeneration of West Salford. |
5.6. **City West Policy**
Information on City West Policy documents was provided by the Action Learning Set (ALS). The ALS agreed that public access to strategies in the public domain via the City West website was less than straightforward and required further development.

In the City West Corporate Plan, there are three principal Policy Strands, as well as internal organisational policies. These strands are:
- Community
- Housing Management
- Asset Management

Community Strategies are in an early stage of genesis, with lead personnel appointed just prior to the start of this HIA. There will be six sub-strands developed in the future strategy, the development of which may be subject to delay, as the appointed lead has since left City West.

Housing Management includes the following strategy documents:
- Anti-social behaviour
- Safeguarding
- Rent
- Arrears
- Sundry Debts
- Home Improvement
- Building and Contents
- Neighbourhood, Tenancy and Estates Management

Asset management policies include:
- Asset Management Strategy
- Access
- Refusal
- Decoration
- Responsive Repairs
- Acquisition
- Disposal
- Property Buy Back
- Annual Gas Servicing
- Leaseholders major works repayments
- Voids and allocations
- Minor site and land enquiries (becomes customer challenge)
- Choice based lettings
- Complaints, Compliments and Comments
- Contractors
- Housing Quality Action Plan
- Right to Acquire
- Right to Ascend
- Right to Buy
- Environmental
Finance Policies cover both Housing Management and Asset Management. Equality and Diversity is a statutory requirement and all policies have an Equality Impact Assessment carried out.

The Contractors Framework under which sub-contractors undertake work for City West includes a full range of policy matters and forms part of their service level agreement with City West.

Similarly, pet policy for flats and houses is included as a clause in Tenant Agreements.

The ALS suggested that overall, links to policy were likely to be stronger between City West and national policy, rather than local, due to the regulated and legislative nature of the relationship between them as a Registered Social landlord (RSL) and the newly formed Tenants Support Association and Homes and Communities Agency.

When asked to consider the wider policy context, the ALS thought that antisocial behaviour was closely allied to the national Crime and Disorder Reduction Strategy. Education and Employment were policy areas not as yet given much consideration, although it was felt that education would be relevant in future to the work around increasing jobs in communities through the communities strategy.

There is an interesting anomaly in terms of transport and transport policy. City West own the land underneath the roads, but not the tarmac on top. Since many of the City West areas are circa WWII, access for buses (Urban Vision with Capita) and bin lorries (Salford CC waste and recycling strategy) is a considerable issue (as is fly tipping). This may present complexities when seeking to engage in local transport plan development and improvement of the public realm.

City West is tied in closely to Salford City Regeneration Framework with regard to “A57 corridor”, “Town Centre” Task Group and “Bridgewater Canal”.

Environmental policy, such as carbon reduction is within the purview of City West’s sustainability manager and as such linked to national sustainability policy.

5.7. **Policy Analysis Summary**

There is a clear synergy between the central housing policy agenda and that of City West. A year on from the housing stock transfer from Salford City Council, the policy context of City West is driven by the two new organisations set up under the new Housing and Regeneration Act 2008 (OPSI, 2008), the Office of Tenants and Social Landlords (TSA) and the Homes and Communities Agency (NCA), due to the legislative nature of their relationship.

Less clear is the synergy between City West policies and non-housing policy, particularly local health policy, which is the responsibility of NHS Salford. Although there is strong expression of commitment and intent, together with prior invitations to engage by City West, a robust and reciprocal relationship is as yet not wholly manifest.

The overarching policy context over the time span of the HIA is economic, driven by a combination of both the global financial crisis and the recent change of UK Government.
This is demonstrated by a fragile national housing market and sensitive financial environment, which continues despite a formal end of a period of recession. The original business plan, which was the basis of the offer upon which customers accepted the transfer of housing stock from Salford City Council, has required modification in light of the global financial situation, but City West remains strongly committed to full delivery.

Significant changes in the national policy context are anticipated, but clearly as yet are unknown. While any such changes may (or may not) impact upon the future availability of resources to City West, in seeking to contribute to reducing inequities and inequalities in health locally, there are potentially numerous opportunities for City West to contribute significantly through delivery of the improvement programme and the development of their own Community Strategy.

With a lead for the strategy both appointed and departed within the timescale of this HIA, it may take rather longer to fully develop the six strands of the Strategy than anticipated at the outset. However, with the new re-emphasis on proportionate universalism in Closing the Gap in a Generation (2008), this presents a significant opportunity to strengthen the strategic engagement with NHS Salford to improve the health and wellbeing of City West customers, in turn contributing to reduction in inequity and inequalities in health for the population of Salford.
6. Community health profile

6.1. Introduction
The purpose of the health profile is to give a picture of the health and socio-demographic context of the areas covered by the programme in order to better understand its potential health impacts and the particular population groups that may be affected. The profiling has involved collecting and analysing secondary (existing) data on a range of indicators that relate to the content and context of the programme, and its possible impacts on health or health determinants. Indicators are measurable variables that reflect the state of a community or of persons or groups in a community.

The structure of the health profile is based upon the health determinant categories of the socio-environmental model of health (Dahlgren and Whitehead, 1991) that underpins HIA methodology, and health outcomes. Figure 4 shows the structure of the health profile. These are not discrete categories and some indicators fall into more than one category.

Figure 4 Structure of the Community Health Profile

6.2. Geographical area
The geographic units of analysis for this HIA are (where available) the Lower Layer Super Output Areas (LSOA) that contain City West properties and the Salford Primary Care Trust (PCT) area; the North West Region and England have been selected for comparison where appropriate.
Units of analysis are the areas/topics that are the focus of the analysis of the HIA. Where the level of aggregation of the secondary data used within the profile does not fit exactly to the units of analysis, the nearest equivalent data aggregation has been used, for example, when data is not available at England level, British or UK level data may be used in its place.

6.3. Summary profile information
This summary provides a brief overview of the issues and population characteristics in Salford, relative to the comparison areas, identified within the detailed profile that follows.

Biological
- The population of Salford is growing, particularly older people, partly fuelled by a high fertility rate and increasing life expectancy.
- Teenage pregnancy rates are relatively high.

Lifestyle
- Like elsewhere in the country, levels of childhood obesity are rising at an alarming rate in Salford. Levels are relatively high in Salford.
- Physical activity levels are relatively low.
- Levels of alcohol-related harm are among the highest in the country, particularly for young people.
- Levels of smoking and relatively high, especially in some of the City West housing areas (wards).

Social/community
- A low relatively low proportion of people feel they belong to their neighbourhoods, and that people from different backgrounds get on well together.
- A low relatively low proportion of people feel they can influence decisions in their area.

Living and working conditions
- The percentage of non-decent council homes in Salford was still twice the national average.
- General satisfaction with their local area was lower in Salford than the comparison areas.
- Average unemployment rates are relatively high and economic activity rates are relatively low. Although BME rates show a slightly different picture.
- Crime rates are relatively high.

General socio-economic, cultural and environmental factors
- There are wide variations in levels of deprivation, with some of the most and least deprived areas in the country.
- Deprivation is more likely to be high among the residents of social housing.
- Educational attainment is relatively low.

Health status
- Levels of limiting long-term illness are relatively high, particularly for City West residents.
- Levels of physical disability are high, particularly for City West residents.
- Levels of mental health problems are relatively high.
- The proportion of people receiving care (formal and informal) is likely to be relatively high, particularly for City West residents.
- Pedestrians are the group most likely to killed or injured in road traffic accidents.
- There are wide variations in health status and health inequalities.
- A relatively high proportion of City West residents may be vulnerable to the (positive and negative) impacts of the improvement programme.

Mortality and life expectancy
- Heart disease (32%), cancers (28%) and respiratory illness (18%) are the major causes of death, with the main risk factors related to lifestyle.
- Average life expectancy for men in Salford was 77 years and for women 81 years (2008 data).
- Life expectancy in Salford is the sixth lowest and female life expectancy the fifth lowest in England.

6.4. Detailed Profile

6.5. Biological factors

Population by Age and Gender
Figure 5 illustrates the population structure of Salford by age and gender. In 2007, Salford’s population was estimated to be 219,200. The trend is an increasing population and a particularly significant increase in the proportion of people aged 65 years and over, which has doubled to 31,669 since 1948. The balance between males and females is almost equal with 50.2% male and 49.8% female (NHS Salford, 2008d).

Figure 5 population structure of Salford by age and gender (2007 Mid-year estimates)
Fertility
Table 3 contains data on the General Fertility Rates (GFR) in Salford and comparison areas. The GFR is markedly higher in Salford than the North West and England averages and is a factor in the rising population levels in Salford.

Table 3 GFR per 1000 females (2008)

<p>| | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>Salford</td>
<td>70.9</td>
</tr>
<tr>
<td>North west</td>
<td>63.2</td>
</tr>
<tr>
<td>England</td>
<td>63.6</td>
</tr>
</tbody>
</table>

Source: NCHOD, 2009a

Teenage pregnancy
Salford has high rates of teenage conception and the 2nd highest rates for teenage pregnancy in Greater Manchester. The number of births to teenage girls in 2007 was 266. Teenage conception rates (per 1000 female population, 2004-06) in Little Hulton (98.2 per 1000) and Swinton North (81.2 per 1000), two wards that contain City West properties, were over twice the national average (NHS Salford, 2009b).

6.6. Individual lifestyle factors

Childhood obesity
In 2008, almost 20% of Salford’s primary school year six children were obese (this is more than double the number from 2000) and a third overweight. For the whole population, 54% are overweight or obese.
In 2008 it was estimated that in Salford there were:

- 39,000 adults who are obese
- 68,000 adults who are overweight
- 5,500 children who are obese
- 5,700 children who are overweight

In the space of only five years the number of obese children in primary school year six more than doubled, in 2000 it was 8.9% and in 2006 it was 18.9% (NHS Salford).

**Physical activity**

Table 4 shows adult participation in sport and active recreation. Participation is lower in Salford than the comparison areas.

| Table 4 Adult participation in sport and active recreation (percentages) |
|-----------------------------|-----------------------------|-----------------------------|
|                             | 2005/06                    | 2007/08                    | 2008/09                    |
| Salford LSP                 | 18.4                       | 18.4                       | 19.8                       |
| North West                  | 20                         | 20.6                       | 21.5                       |
| England                     | 21.1                       | 21.1                       | 21.3                       |

*Source: Audit Commission (2010)*

**Alcohol**

Levels of alcohol-related harm are among the highest in the country. Estimates of alcohol consumption suggest that approximately 35% of the population in Salford drink over recommended limits, with 12% significantly exceeding these limits and drinking at harmful levels or being alcohol dependent.

The rate of alcohol-related hospital admissions in Salford is the sixth highest in England with over 5,000 admissions to A&E each year. Over the last five years, the number of alcohol-related hospital admissions has increased by approximately 600 per year.

The picture for alcohol consumption by young people is most worrying; 19% of 14 to 17 year olds in Salford drink more than once a week, one of the highest rates in the North West. Salford has the highest rate of young people drinking on streets and in parks, at 51%, compared to a regional average of 37% (NHS Salford, 2009b).

**Smoking**

In Salford, the average rate of smoking (29%) is higher than nationally (22%). This average masks widespread variations. In areas such as Little Hulton and Ordsall, levels are as much as 36% whereas in Worsley and Boothstown, the figure approaches 10% (City West wards are highlighted in bold). Levels of ill health and death caused by smoking are as much as twice the national average in Salford’s high smoking wards. In those areas with particularly high smoking prevalence, levels of smoking related ill health are at least 50% higher than the national average. This includes illnesses such as Chronic Obstructive Lung Disease, Cardiovascular disease and stroke.

In Salford, 20% of women continue to smoke throughout their pregnancy compared with the national average of 17% (NHS Salford, 2009b).
6.7. Social and community networks

Table 5 shows the percentage of people surveyed who believe people from different backgrounds get on well together in their local area. The percentage is lower in Salford than the North West and England averages.

<table>
<thead>
<tr>
<th>Table 5 Percentage of people who believe people from different backgrounds get on well together in their local area</th>
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<tr>
<td></td>
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<tr>
<td>2008</td>
</tr>
<tr>
<td>Salford LSP</td>
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<tr>
<td>North West</td>
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<tr>
<td>England</td>
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<tr>
<td><strong>Source:</strong> Audit Commission (2010)</td>
</tr>
</tbody>
</table>

Table 6 shows the percentage of people surveyed who feel that they belong to their neighbourhood. The percentage is lower in Salford than the North West and England averages.

<table>
<thead>
<tr>
<th>Table 6 Percentage of people who feel that they belong to their neighbourhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
</tr>
<tr>
<td>Salford LSP</td>
</tr>
<tr>
<td>North West</td>
</tr>
<tr>
<td>England</td>
</tr>
<tr>
<td><strong>Source:</strong> Audit Commission (2010)</td>
</tr>
</tbody>
</table>

Table 7 shows the percentage of civic participation in the local area. Civic participation is higher in Salford than the comparison areas.

<table>
<thead>
<tr>
<th>Table 7 Civic participation in the local area (percentages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
</tr>
<tr>
<td>Salford LSP</td>
</tr>
<tr>
<td>North West</td>
</tr>
<tr>
<td>England</td>
</tr>
<tr>
<td><strong>Source:</strong> Audit Commission (2010)</td>
</tr>
</tbody>
</table>

Table 8 shows the percentage of people in Salford participating in regular volunteering. Levels are relatively low in Salford.

<table>
<thead>
<tr>
<th>Table 8 Participation in regular volunteering (percentages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
</tr>
<tr>
<td>Salford LSP</td>
</tr>
<tr>
<td>North West</td>
</tr>
<tr>
<td>England</td>
</tr>
<tr>
<td><strong>Source:</strong> Audit Commission (2010)</td>
</tr>
</tbody>
</table>

Table 9 shows the percentage of people surveyed who feel they can influence decisions in their locality. Fewer people in Salford believe they can influence local decisions.

**Error! Reference source not found.**
Table 9 Percentage of people who feel they can influence decisions in their locality

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salford LSP</td>
<td>23.5</td>
</tr>
<tr>
<td>North West</td>
<td>27.4</td>
</tr>
<tr>
<td>England</td>
<td>28.9</td>
</tr>
</tbody>
</table>

Source: Audit Commission (2010)

6.8. Living and working conditions

Decent homes
Table 10 shows the percentage of non-decent council homes between to the years of 2001 and 2009. Although the figures have reduced considerably during the time period the percentage of non-decent council homes in Salford was still twice the national average in 2008/09.

Table 10 Percentage non-decent council homes

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Salford LSP</td>
<td>80.5</td>
<td>68.4</td>
<td>65.1</td>
<td>58.2</td>
<td>52.7</td>
<td>51.5</td>
<td>27.6</td>
<td>44</td>
</tr>
<tr>
<td>North West</td>
<td>53.2</td>
<td>48.5</td>
<td>41.2</td>
<td>39.7</td>
<td>32.5</td>
<td>30.4</td>
<td>20.1</td>
<td>13.2</td>
</tr>
<tr>
<td>England</td>
<td>49.3</td>
<td>47.6</td>
<td>44.4</td>
<td>41</td>
<td>35.8</td>
<td>31.1</td>
<td>26.4</td>
<td>22</td>
</tr>
</tbody>
</table>

Source: Audit Commission (2010)

Satisfaction with local area
Table 11 shows the percentage of people surveyed who were generally satisfied with their local area. General satisfaction was lower in Salford than the comparison areas.

Table 11 Overall/general satisfaction with local area

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salford LSP</td>
<td>65.6</td>
</tr>
<tr>
<td>North West</td>
<td>76.9</td>
</tr>
<tr>
<td>England</td>
<td>79.7</td>
</tr>
</tbody>
</table>

Source: Audit Commission (2010)

Economic activity, employment and unemployment
Table 12 shows the working age economic activity by sex, and employment rates by gender and ethnicity for Salford and comparison areas. The average economic activity and employment rates for both sexes are lower in Salford than the comparison areas. The working age employment rate for ethnic minorities in Salford is higher than the North West average and lower than the England average. The ethnic minority unemployment rate and economic activity rates are lower in Salford than the North West but lower than the England average.
Table 12 Working age economic activity by gender, and employment rates by gender and ethnicity (2009)

<table>
<thead>
<tr>
<th></th>
<th>Salford</th>
<th>North West</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Economic activity rate - aged 16-64</td>
<td>71.9</td>
<td>74.6</td>
<td>76.9</td>
</tr>
<tr>
<td>% Employment rate - aged 16-64</td>
<td>63.7</td>
<td>68.1</td>
<td>70.9</td>
</tr>
<tr>
<td>% Unemployment rate - aged 16-64</td>
<td>11.4</td>
<td>8.7</td>
<td>7.8</td>
</tr>
<tr>
<td>% who are economically inactive - aged 16-64</td>
<td>28.1</td>
<td>25.4</td>
<td>23.1</td>
</tr>
<tr>
<td>% aged 16-64 who are economically inactive - want a job</td>
<td>7.7</td>
<td>6.0</td>
<td>5.5</td>
</tr>
<tr>
<td>% aged 16-64 who are economically inactive - do not want a job</td>
<td>20.4</td>
<td>19.5</td>
<td>17.6</td>
</tr>
<tr>
<td>% Economic activity rate males - aged 16-64</td>
<td>77.3</td>
<td>80.7</td>
<td>83.4</td>
</tr>
<tr>
<td>% Economic activity rate females - aged 16-64</td>
<td>66.2</td>
<td>68.5</td>
<td>70.4</td>
</tr>
<tr>
<td>% aged 16-64 employment rate - ethnic minority</td>
<td>54.0</td>
<td>51.3</td>
<td>58.6</td>
</tr>
<tr>
<td>% 16+ unemployment rate - ethnic minority</td>
<td>15.8</td>
<td>16.7</td>
<td>13.2</td>
</tr>
<tr>
<td>% of ethnic minority aged 16-64 who are economically inactive</td>
<td>35.9</td>
<td>38.4</td>
<td>32.4</td>
</tr>
</tbody>
</table>

Source: Nomis (2010)

Crime

Table 13 shows recorded burglaries per 1,000 households between 1999/00 and 2005/06. Like elsewhere in the country, recorded burglaries fell considerably in Salford between 1999 and 2006; however, the rates were considerably higher in Salford than the England average. Recorded crime rates for other indicators such as robbery and vehicle crime show a similar pattern.

Table 13 Recorded burglaries per 1,000 households between 1999/00 and 2005/06

<table>
<thead>
<tr>
<th></th>
<th>1999/00</th>
<th>2000/01</th>
<th>2001/02</th>
<th>2002/03</th>
<th>2004/05</th>
<th>2005/06</th>
<th>2005/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salford</td>
<td>48.2</td>
<td>43.9</td>
<td>46.3</td>
<td>43.7</td>
<td>40.4</td>
<td>28.2</td>
<td>23.5</td>
</tr>
<tr>
<td>England</td>
<td>20.8</td>
<td>18.8</td>
<td>19.9</td>
<td>20.7</td>
<td>18.6</td>
<td>14.7</td>
<td>13.8</td>
</tr>
</tbody>
</table>

Source: CLG, 2007

6.9. General socio-economic, cultural and environmental factors

Deprivation

Within Salford, there are wide variations in levels of deprivation; Figure 6 illustrates these differences (City West housing areas are shown in red) using Indices of Multiple Deprivation (IMD 2007) data. The areas in blue are amongst the 20% most deprived areas in England (darker blue areas have higher levels of deprivation). City West housing improvement areas fall into areas with a wide range of levels of deprivation and include some of the 20% most and least deprived LSOAs in the country (based on IMD 2007 LSOA rank data). There are links between deprivation and health inequalities.
**Education**

Table 14 shows the percentage of schools in Salford meeting the key stage 3 (KS3 = school years 7, 8 and 9) target for English, maths and science. In each of the years Salford schools scored well below the English average.

<table>
<thead>
<tr>
<th></th>
<th>2002/03</th>
<th>2003/04</th>
<th>2004/05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salford</td>
<td>64.3</td>
<td>57.1</td>
<td>69.2</td>
</tr>
<tr>
<td>England</td>
<td>81.1</td>
<td>80.7</td>
<td>86.8</td>
</tr>
</tbody>
</table>

*Source: CLG, 2007*

Table 15 shows the percentage of schools in Salford and England in which at least 30% of pupils achieved 5+ GCSEs grades A*-C (2002/03 to 2004/05). Although the data shows considerable improvement over time, there was still a higher percentage of schools in Salford were below 30% of students gained less than 5+ GCSEs grades A* to C.
Table 15 Percentage of schools in which at least 30% of pupils achieved 5+ GCSEs grades A* to C (2002/03 - 2004/05)

<table>
<thead>
<tr>
<th></th>
<th>2002/03</th>
<th>2003/04</th>
<th>2004/05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salford</td>
<td>57.1</td>
<td>71.4</td>
<td>78.6</td>
</tr>
<tr>
<td>England</td>
<td>88.8</td>
<td>88.9</td>
<td>92.6</td>
</tr>
</tbody>
</table>

Source: CLG, 2007

6.10. Health status and morbidity

Self-assessed health and limiting long-term illness

Table 16 contains data of the (2001) levels of limiting long-term illness (LLTI) in Salford and comparison areas. Levels were higher in Salford than the North West and England averages.

Table 16 Household persons with limiting long-term illness or disability (Census 2001)

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salford PCT</td>
<td>47320</td>
<td>22.5</td>
</tr>
<tr>
<td>North West</td>
<td>1330665</td>
<td>20.1</td>
</tr>
<tr>
<td>England</td>
<td>8369174</td>
<td>17.3</td>
</tr>
</tbody>
</table>

Source: NCHOD (2009)

The 2009 City West Status Survey (Kwest Research, 2009) identified that 58% of respondents reported that their household (note: not a percentage of individuals) included someone with a limiting long-term illness, health problem or. 9% of households contained someone who uses a wheelchair. Although, for methodological reasons, these data cannot be directly compared with routinely collected sources of data, such as Census data, it does provide an indication of high levels of illness and disability relative to other areas; this is consistent with the evidence from the literature on the health status of social housing tenants.

According to the City West survey report ‘of those general needs tenants who say they have a disability or a long term illness, half in each case describe their condition as a long-term illness (52%) or say that they have mobility difficulties (50%). A quarter (26%) say they have a physical disability, and a fifth (18%) have a hearing disability. 16% describe their condition as a mental health problem’. This indicates potentially high levels of people vulnerable to the impacts of the improvement programme.

Mental health

Nationally mental illness accounts for less than 5% of all premature mortality (usually through suicide). However, it accounts for over 30% of all illness and disability – no other health condition accounts for more than 10% of the total burden of disease within the population.

It is estimated that, at any time, one in ten people in Salford are suffering from common mental health problems. There is also research indicating that a great proportion of people suffering from depression (35%) and anxiety (51%) are not in contact with services which suggests that these figures may be a lot higher.

Mental health problems can be debilitating, accounting for 26% of disability-adjusted life years (DALY), far more than cardiovascular disease (17.2%) and cancer (15.5%).
Over 48% of people claiming Incapacity Benefit in Salford do so for mental health reasons compared with 43% for the North West and 41% for England.

Mental illness includes dementia, which places a significant burden on health and social care services as well as the sufferers and their carers. An estimated 2,266 people in Salford have dementia and this number is expected to increase to over 2,461 over the next 15 years because of the aging population (NHS Salford, 2009b).

People receiving care at home

Table 17 shows the known rates of people (per 1000 population) with physical disabilities (aged 18 to 64) who are helped to live at home. Despite starting at the same level as the England average in 2003/04, by 2006/07 the rate of people receiving help to live at was home more than double the England average. It should be noted that this increase may be partly the result changes in policy, improvements in identifying need and providing support.

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate (per 1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2003/04</td>
</tr>
<tr>
<td>Salford</td>
<td>4.2</td>
</tr>
<tr>
<td>England</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Source: Salford City Council Research and Statistics Team (2007)

Table 18 shows the known rates of people (per 1000 population) with learning difficulties helped to live at home. The rate in Salford steadily increased over this period, as did the England rate. However, the rate is substantially higher in Salford.

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate (per 1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2003/04</td>
</tr>
<tr>
<td>Salford</td>
<td>4.1</td>
</tr>
<tr>
<td>England</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Source: Salford City Council Research and Statistics Team (2007)

Table 19 shows the known rates of people (per 1000 population) with mental health problems who are helped to live at home. Despite being at a lower level in 2003/04, by 2006/07 the rate of people in Salford receiving help at home was higher than the England average. As with the data for physical disabilities, the actual levels of need/illness are unlikely to have increased so markedly within this time period and, therefore, the observed increase may be partly the result of changes in policy, improvements in identifying need and providing support.

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate (per 1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2003/04</td>
</tr>
<tr>
<td>Salford</td>
<td>1.8</td>
</tr>
<tr>
<td>England</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Source: Salford City Council Research and Statistics Team (2007)

Informal care

The levels of people receiving informal care are, by definition, difficult to measure or estimate accurately, particularly the numbers of children and young people providing informal care to parents and relatives. The best available data is provided by the 2001 Census survey which estimated that a total of 5.2 million people in England and Wales provided informal, unpaid care including approximately 150,000 young carers (2.9% of the total). Women (58% of adult carers) and girls (56% of young carers) are more likely to
provide informal care than men (42% of adult carers) and boys (44% of young carers). 68% (3.56 million) of all carers provided care for up to 19 hours a week, 11% (0.57 million) for 20 to 49 hours and 21% (1.09 million) for 50 or more hours per week (ONS Census 2001; Afiya Trust, 2007 cited in Abrahams and Pennington, 2008). Based on the profile evidence and evidence from the literature, the levels of reported long-term illness and disability are relatively high in Salford and higher still amongst the tenants of social housing. We can, therefore, speculate that a large number of City West customers are providing informal care.

Persons killed or seriously injured (KSI) in road traffic accidents (RTAs)
Table 20 shows the number and percentage of people in Salford who were killed or seriously injured (KSI) in RTAs in 2009. 919 people were injured, 848 of which sustained slight injuries, 71 people sustained serious injuries (including 10 children) and 6 people were killed. Pedestrians make up the largest proportion of casualties, followed by motorcyclists, car occupants and cyclists (Salford City Council, 2010). According the World Health Organisation vulnerable road users (pedestrians, cyclists, and riders of motorized two-wheelers and their passengers) account for around 46% of global traffic deaths. However, it should be noted that this proportion is lower in more developed countries.

<table>
<thead>
<tr>
<th>Casualty</th>
<th>KSI’s</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrians</td>
<td>21</td>
<td>29.5%</td>
</tr>
<tr>
<td>Motorcyclists</td>
<td>11</td>
<td>15.5%</td>
</tr>
<tr>
<td>Car occupants</td>
<td>30</td>
<td>42.2%</td>
</tr>
<tr>
<td>Cyclists</td>
<td>7</td>
<td>9.8%</td>
</tr>
<tr>
<td>Motorway casualties</td>
<td>16</td>
<td>22.5%</td>
</tr>
<tr>
<td>Male casualties</td>
<td>50</td>
<td>70%</td>
</tr>
<tr>
<td>Female casualties</td>
<td>21</td>
<td>30%</td>
</tr>
<tr>
<td>Child casualties</td>
<td>10</td>
<td>14.1%</td>
</tr>
</tbody>
</table>

Source: Salford CC, 2010a

6.11. Mortality and life expectancy

Causes of mortality
Heart disease (32%), cancers (28%) and respiratory illness (18%) are the major causes of death, with the main risk factors related to lifestyle - smoking, obesity, alcohol misuse – showing a shift from infection to lifestyle issues (NHS Salford, 2009b).

Cardiovascular disease
Cardiovascular disease (CVD), particularly coronary heart disease (CHD), stroke, and Type II diabetes mellitus are the main causes of death in the UK.

In 2005-2007 the Standardized Mortality Ratio (SMR) for CVD was 128, which means that the death rate in Salford was 28% higher than when compared to England and Wales deaths over the same period. About 30% of Salford’s life expectancy gap is because of cardiovascular disease. It accounts for 27.1% of all deaths within Salford each year with the highest proportion of people dying from circulatory disease being in Broughton, Langworthy, Ordsall, Eccles and Little Hulton (City West wards highlighted in bold) (NHS Salford, 2009b).
**Cancer**

Cancer is one of the main causes of early death in Salford, one of the worst in the country. In 2006, 132 more people died from cancer in Salford who would not have died if Salford had the same death rate from cancer as England & Wales. This is almost 21% of the total number (638) of deaths from cancer in Salford.

In Salford, 82% of cancer deaths are in people aged 55 years and over.

For both men and women the most common cancer type to die from is lung cancer (43% and 45% respectively). For women the next most common cancer type is breast cancer (19%) followed by colorectal cancer (13%) and oesophageal cancer (5%) (NHS Salford, 2010).

**Life expectancy**

The average life expectancy in 2008 for men in Salford was 77 years and for women 81 years. Although life expectancy in Salford has improved year on year, the gap between Salford and England as a whole (3.1 years) is the same now as it was eight years ago for men, and has widened from 2.3 to 2.7 years for women.

The life expectancy gap for areas of Salford with the poorest health is nine years below an area such as Kensington and Chelsea. Compared to England as a whole, male life expectancy in Salford (PCT area) is the sixth lowest and female life expectancy the fifth lowest (NHS Salford, 2009b).
7. Evidence from the literature

8. Introduction
This section presents a summary of evidence from academic literature. It is divided into three sub-sections, (1) evidence on the health impacts of housing/housing interventions (e.g. affordable warmth interventions), (2) evidence on the health impacts of the general physical environment (e.g. street lighting interventions and the availability of greenspace) and (3) evidenced based strategies and guidance to promote the design and delivery of healthy sustainable communities.

9. Understanding the strength of the evidence
Evidence from the literature is usually defined in terms of the confidence or ‘strength’ of the findings. For the purpose of this HIA a hierarchy of evidence from I to VI was defined; this evidence hierarchy includes evidence from the literature as well as evidence from key informants/stakeholders. The hierarchy of evidence is summarised/illustrated in Figure 7.

Figure 7 Hierarchy of evidence

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Reviews of reviews or meta analyses</td>
</tr>
<tr>
<td>II</td>
<td>Systematic reviews or reviews of HIAs</td>
</tr>
<tr>
<td>III</td>
<td>Reviews or single HIAs</td>
</tr>
<tr>
<td>IV</td>
<td>Single studies</td>
</tr>
<tr>
<td>V</td>
<td>Evidence from experts (key informants)</td>
</tr>
<tr>
<td>VI</td>
<td>Evidence from stakeholders</td>
</tr>
</tbody>
</table>

Source: based on Haigh et al., 2008

The strength of evidence is relative to other levels of evidence for the purpose of comparison; lower levels of evidence may still be valid and reliable. This HIA considers relevant evidence from all levels and acknowledges the limitations of current research techniques in fully understanding the complex nature of housing and neighbourhood interventions.
10. (1) Evidence of the health impacts of housing/housing interventions

In an earlier HIA of a housing improvement programme (Birley, Pennington and Dreaves, 2009) we conducted a literature review of the available evidence of the health impacts of housing/housing interventions. This section builds upon that work and includes further context specific studies and analysis together with the findings of more recent reviews.

10.1. Evidence from reviews of reviews, systematic reviews or reviews of HIAs of housing/regeneration and health (levels I and II)

There are many studies on the association of housing factors and health. There have also been a number of reviews of those studies. The reviews are primarily concerned with establishing robust scientific evidence for the association between housing and health.

In order to establish a scientific basis, the reviewers each adopted a narrow focus. They rejected studies which contained inherent biases or did not fully account for confounding factors. After applying this filter, very few studies were left and there was no basis for a quantitative assessment; this is not surprising. The occupants of social housing are often the recipients of multiple sources of deprivation and multiple interventions and, therefore, the potential for confounding factors in such complex situations is high. Removing one of those sources of deprivation is unlikely to provide a demonstrable/measurable improvement to health. In addition, response rates in deprived areas are often low. Other studies, summarised below, have noted improvements in self-perceived health (Crouch and Fitharris, 2003).

Poor health in deprived neighbourhoods is in part driven by a series of social and environmental factors, such as:
- Poor housing and local environments.
- Limited social networks.
- Income, poverty and worklessness.
- Poor local transport and access to services.
- Low educational attainment.
- Drug and alcohol misuse.

It is the interplay between structural factors, neighbourhood conditions and opportunities, social relationships and housing conditions, as well as individual factors such as lifestyle, which determine health and health inequalities (Care Services Improvement Partnership, 2006).

In some areas, increasing polarisation in the housing market between owner-occupied and rental housing has contributed to an over-concentration and separation of households with high levels of need in areas with poor amenities. The characteristics of such neighbourhoods are increasing spatial segregation, diminishing social housing, high rates of crime, low perceptions of trust, weakened social networks and poor access to services (Acheson, 1998). In other areas, such polarization has been avoided.

Studies of interventions which do not meet the robust scientific criteria required of a systematic review are still likely to be very useful in the context of housing and
neighbourhood improvement in West Salford, where higher level evidence does not exist (perhaps partly as a result of the limitations of systematic reviews when considering the complexity of housing interventions). The robust evidence indicates the following:

- Multiple housing deprivation leads to greater risk of disability or severe ill-health in later life (Dedman et al., 2001)
- Improvements in mental wellbeing are reported consistently following housing improvements. The degree of mental wellbeing improvement may be linked to the extent of the housing improvements. Increased housing satisfaction following housing improvements has been linked to improvements in mental wellbeing. The effect may be short term (Crouch and Fitiharris, 2003).
- Housing improvements that ensure the provision of affordable warmth may have the greatest potential to reduce the adverse effects of poor housing. Optimal temperature is an essential component of domestic heating provision and may also affect levels of dampness and allergen growth. Energy efficiency improvements have led to improvements in general health and respiratory health among asthmatic children. The elderly and very young are particularly at risk from both low and high indoor temperatures. Sudden increases in air pollutants are also most detrimental to the health of the elderly and asthmatics.
- When housing improvements are accompanied by increased rents there is a risk of negative health impacts.
- Regeneration can sometimes create divisions within the local area.
- Insulating existing houses led to a significantly warmer, drier indoor environment and resulted in improved self rated health, self reported wheezing, days off school and work, and visits to general practitioners as well as a trend for fewer hospital admissions for respiratory conditions (Howden-Chapman et al., 2007).

Further information on the reported health outcomes of housing interventions is summarised within Table 21 below.

### Table 21 Further information on the health outcomes of housing intervention (from robust studies)

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Positive health outcomes</th>
<th>Negative health outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refurbishment, neighbourhood renewal, and improvements to security and safety</td>
<td>Less people with a self-reported mental health problem</td>
<td>Reduction in self-reported ratings of good general health status</td>
</tr>
<tr>
<td></td>
<td>less people reporting “trouble with nerves”</td>
<td>Increase in chronic respiratory conditions</td>
</tr>
<tr>
<td></td>
<td>less smokers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>more people who regarded the area as very/quite safe</td>
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<tr>
<td></td>
<td>Less aches and pains</td>
<td>Increase illness episodes</td>
</tr>
<tr>
<td></td>
<td>Less asthmatic and bronchial symptoms</td>
<td>(confounded by flu epidemic)</td>
</tr>
<tr>
<td></td>
<td>Less stress and depression</td>
<td>Increase in coughs and colds</td>
</tr>
<tr>
<td></td>
<td>Less use of GP</td>
<td>Decreased access to medical services reported</td>
</tr>
<tr>
<td></td>
<td>Less prescriptions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less casualty/outpatient service use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less illness days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>More feelings of safety and</td>
<td></td>
</tr>
</tbody>
</table>
| Refurbishment and community regeneration | Less anxiety and depression  
More attendance at residents’ association meetings  
More recognition of neighbours |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Regeneration</td>
<td>Less prescribing of hypnotics</td>
</tr>
</tbody>
</table>
| Rehousing | Less GP visits  
Less sense of isolation, fear of crime  
Less problems with traffic  
Increased involvement with community affairs |
| Rehousing | Residents associated rehousing with health improvements and decreased stress |

### Housing energy efficiency improvement and health outcomes in separate studies (summarised by Taylor et al., 2005)

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Positive health outcomes</th>
<th>Negative health outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>New windows</td>
<td>Less self-reported joint, neck or back pain</td>
<td></td>
</tr>
</tbody>
</table>
| New central heating | Less respiratory symptoms  
Less school days lost to asthma |
| Heat and rent programme | Less reports of “runny nose” | More self-reported aches and pains |
| Improved energy efficiency in tower blocks | Increased physical health status scores |

#### Additional information (summarised by Taylor et al., 2005)

| General refurbishment | Lack of evidence of the effectiveness of interventions involving general refurbishment initiatives in improving health outcomes. |
| Intervention | Information on potential health impacts and status of the evidence |
| Improvement in housing energy efficiency measures | Improvements to energy efficiency measures, such as installation of new windows, can positively affect health outcomes. |
| Accidental injury prevention for children and young people | Home visits to people in lower socioeconomic areas and provision of advice on home hazards, combined with health education and media campaigns are effective in encouraging parents to make physical changes to the home environment to ensure their homes are safer.  
Provision of free or discounted home safety equipment and/or educational campaigns may lead to behavioural and environmental change.  
Conflicting review-level evidence on the effectiveness of interventions comprising healthcare counselling or education, provision of safety information or free thermometers in encouraging people to use safe hot water temperatures.  
Lack of evidence on the effectiveness of provision of home safety equipment and/or educational campaigns in reducing physical injuries in children and young adults through modification of the home environment. |
| Accidental injury prevention for older people | Home hazard modification interventions that seek to remove and repair safety hazards are effective in reducing falls in older people. This effect was strongest for people with a history of falling prior to intervention and men aged 75 years and over. Lack of evidence on the effectiveness of interventions in reducing the risk of injurious falls in older people through modification of the home environment compared with control measures. |
| Smoke alarms | Community based interventions that provide free smoke alarms (with or without installation) may reduce fire-related injuries  
Conflicting evidence of the effectiveness of education-based interventions combined with provision of discounted smoke detectors in increasing the proportion of people that install smoke detectors.  
Lack of evidence to demonstrate effectiveness of community based injury or burn prevention education programmes in reducing injuries or burns. |
| Asthma | Lack of evidence of effectiveness of air filtration systems  
Lack of evidence on interventions that aim to reduce exposure to house dust might allergen in improving health outcomes. |
Intensive cleaning and the use of acaricidal sprays may lead to a reduction in allergen load when combined with maintenance drug treatments.

Systematic review of housing interventions

A systematic review of housing intervention studies (1887 to 2007) found that housing improvements, especially warmth improvements, can generate health improvements and there is little evidence of detrimental health impacts. The potential for health benefits may depend on baseline housing conditions and careful targeting of the intervention. The review recommended that an investigation of the socioeconomic impacts associated with housing improvement is needed to investigate the potential for longer-term health impacts (Thomson et al., 2009).

Guide to Health Impact Assessment of Housing Improvements

In 2003, a guide to health impact assessment of housing improvements was published in Scotland (Douglas et al., 2003). The guide includes a review of existing studies. The review makes a distinction between studies that looked at housing improvement in health, the observed associations between housing and health and other significant effects reported in studies of housing improvement and regeneration.

The guide contains the following conclusions about the studies of housing improvement and health (a), the observed associations between housing and health (b) and other effects reported in studies of housing improvement and regeneration (c).

(a) Studies of housing improvement and health:

- Increased deaths have been linked to rent increases associated with housing improvement.
- Small improvements in general health may be expected following housing improvement but may be countered by other related or unrelated changes in housing and within residents’ individual circumstances.
- Improvements in housing are likely to result in improvements in residents’ mental health.
- Improvements in respiratory health following housing improvement cannot be assumed.
- Improved energy efficiency may improve respiratory symptoms.
- The use of safety devices in the home, particularly smoke alarms and child resistant packaging on poisonous products, may reduce the risk of unintentional injury. Mechanisms to ensure proper installation and maintenance of smoke alarms are required to promote long term functioning. Smoke alarms using an ionisation sensor with a ten year lithium battery are most likely to be still in operation one year after installation. Tailored exercise programmes for the elderly may also reduce risk of falling in the home.
- Positive impacts of housing and area improvement reported include improved reports of safety, community involvement and area satisfaction. Negative impacts reported include increased housing costs, displacement of original residents, social exclusion and community division for those in neighbouring areas not benefiting from the improvements, disruption, uncertainty and lack of control around the move. Only some of these impacts have been linked to subsequent health impacts, the most negative being the result in increased housing costs following housing improvement.
(b) Observed associations between housing and health:

- The primary health issues associated with domestic buildings in Scotland have been identified as indoor air quality, hygrothermal conditions, radon, falls, house-dust mites, environmental tobacco smoke and fires.
- Provision of central heating in housing may not automatically result in warmer homes. Heating systems which can provide affordable heat is an important consideration when installing new heating systems into homes, especially social housing. It has been suggested that health problems associated with cold housing are more strongly linked to the ability to fund fuel bills rather than the characteristics of the house itself.
- Flat dwelling, in particular high-rise flats, has been linked to factors associated with stressful living conditions such as increased social isolation, crime, reduced privacy and opportunities for safe-play for children. However, there are many factors related to flat dwelling which may confound findings of surveys and there are no conclusive data that height of home from ground level is associated with reduced health or satisfaction with housing.
- A recent review of epidemiological surveys showed a consistent pattern of decreased levels of mental health associated with housing height and multi-unit dwelling, but the data is not conclusive.
- Overall satisfaction with neighbourhood has also been linked to health. Although not an explicit health or illness indicator, neighbourhood satisfaction has been used as a proxy for life satisfaction/general wellbeing. Neighbourhood satisfaction is most strongly influenced by satisfaction with housing and private space, although it is unclear how neighbourhood satisfaction influences housing satisfaction. There are also unanswered questions as to how specific area characteristics, especially amenities, influence overall neighbourhood satisfaction.
- Poor quality housing, flatted housing and overcrowded housing have been associated with low levels of mental health and emotional wellbeing particularly amongst women and children. Evidence from the review of health gains following housing improvements adds further weight to this as a mechanism by which poor housing and housing improvements may impact on mental health.

(c) Other effects reported in studies of housing improvement and regeneration.

Table 22 contains a summary of the findings.

<table>
<thead>
<tr>
<th>Category of impact</th>
<th>Health Impact (direction of impact)</th>
<th>Strength of available evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>General health and wellbeing, illness episodes, health service use</td>
<td>Regeneration has unclear overall impact on health or illness (no clear overall impact). Energy efficiency measures and medical priority rehousing improve self-reported health (positive impact).</td>
<td>+</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>Numbers of smokers reduced (positive impact).</td>
<td>+</td>
</tr>
<tr>
<td>Mortality</td>
<td>Higher mortality linked to rent increases (negative impact).</td>
<td>+</td>
</tr>
<tr>
<td>Respiratory symptoms</td>
<td>Conflicting findings from studies of regeneration and housing refurbishment (no clear overall impact). Improved energy efficiency may reduce respiratory symptoms (positive impact).</td>
<td>+</td>
</tr>
</tbody>
</table>
Mental health  
Regeneration and medical priority rehousing improve mental health (positive impact).  
No improvements reported following improved energy efficiency (no clear overall impact).

++
+

Injuries  
Safety devices in the home, such as smoke alarms and child resistant packaging on poisonous products, can reduce unintentional injury (positive impact).  
Environmental modifications and tailored exercise programmes help prevent falls in the elderly (positive impact).

++**
++**

Social impacts  
Increased community involvement, social support, sense of belonging and feeling of safety (not known).  
Reduced fear of crime and sense of isolation (not known).  
Increased rents led to reduced income to buy adequate diet (negative impact).  
Improved energy efficiency led to less school time lost due to asthma symptoms, but not other symptoms (positive impact).

+  
+  
+  
+

Note: Improved energy efficiency measures include central heating, improved warmth and insulation measures such as double glazing.  
* This is a synthesis of findings from studies of housing improvement. Overall assessment of health impacts may include findings from one or more studies.  
** Conclusions of a systematic review

Not known: although social impacts are reported in some studies the research evidence for such a link is missing at present

Strength of evidence (a measure of the quality of the study only):

+++  Strong association: evidence from prospective controlled studies with good levels of follow up
++  Moderate association: evidence from at least one prospective controlled studies
+  Weak association: evidence from uncontrolled studies

The strength of available evidence criteria is relative to other levels of evidence. Controls, which help to increase the strength of evidence, cannot always be used in studies due to practicalities/resources. The absence of study controls does not necessarily mean that the findings of these studies are invalid and future work may support their findings and increase the strength of evidence.

10.2. Evidence from reviews or HIAs of housing/regeneration and health (level III)

Health impact assessment of Sheffield Decent Homes  
Sheffield City Council in collaboration with Sheffield's Primary Care Trusts commissioned an HIA of their Decent Homes programme (Gilbertson et al., 2006). They concluded that the programme would have a major impact on health and quality of life of residents. Figure 8 summarises their findings.
The Sheffield HIA found that home improvements had the following positive impacts on health and wellbeing.

Home improvements:
- Lead to higher indoor temperatures, less fuel poverty, less damp and mould.
- Reduce falls, electrical hazards and harm from flames and hot surfaces.
- Reduce the likelihood of harm from intruders.

The Sheffield HIA acknowledges the stress caused by the renovation process itself. Personal tenant control over the process is likely to be linked to health. This is difficult to achieve with large programmes on large estates.

Based on focus group interviews, the emotional reactions to housing improvement are summarised in Figure 9. The negative emotions are associated with worry and stress, anxiety and depression, ill-health and especially poor mental health. The positive emotions are associated with a greater sense of wellbeing and better health. The study reports that there is a significant correlation between feeling well informed about the renewal process and not experiencing adverse health effects.
The Sheffield HIA details the process by which tenants were kept informed. It also describes the tenants’ responses to the inevitable disruption. The following feedback is indicative.

Contractors made efforts to minimise the invariable disruption, noise, dirt and sense of invasion, but tenants still reported problems. Boxes were supplied to store belongings but were sometimes insufficient “I can have three boxes for 40 years of stuff” or “My front room was absolutely choc-o-block (storing things) and there was nowhere for me to sit.” Normal routine could be disrupted, disorienting tenants. “With everything that has gone on we have been lost, half the time you are on another planet, don’t know where you are, trying to get things sorted.”

For some, family life was pressurised, with more arguments, more takeaways and more expense “living off junk food all the time.” Having contractors in their home led to a sense of invasion “we were invaded and put the kettle on… but it got to the point when they were using the house like a cafe” and it “makes you feel your privacy is invaded ‘cos you don’t know who these people are and what they are doing.” All these emotions could cause stress and anxiety. “I take tablets for anxiety, and this (the works) made me more anxious; at times I had to get away as I couldn’t take any more.”

There were additional issues about managing the health and safety of the workplace. Tenants needed to keep out of hazardous areas. Safety talks were required at local schools to inform children about the dangers of worksites.

After the work was completed, tenants required many months to settle back in and feel that life had returned to normal.
European housing and health

The CIEH quotes the Large Analysis and review of European Housing and Health Status (LARES) project conducted by WHO (WHO, 2009). The study used assessments by professionals and questionnaires to occupants to show the links between housing quality and perceived health; see Figure 10 for further information. The figure suggests that perceived health does improve with housing quality.

Figure 10 Relationship between housing quality and perceived health

Other data from LARES, quoted by CIEH, include prevalence rates of asthma, bronchitis and arthritis according to levels of dampness and mould in housing, and suggests a relationship.

HIA of Residential Relocation

Residential relocation is a common element of housing and other regeneration initiatives. Relocation can either be temporary (e.g. while homes are refurbished or rebuilt) or permanent (e.g. as a result of clearance/change of land use). Relocation may be voluntary or forced.

In 2006 IMPACT (Abrahams, 2006) conducted a desk-based HIA of Liverpool City Councils Residential Relocation Core Document (RRCD). The RRCD was Liverpool City Council’s strategy for supporting residents affected by housing clearance programmes, including areas of housing covered by the Housing Market Renewal Initiative (HMRI). The aims of the RRCD were as follows:

- To provide a mechanism for meeting rehousing needs of residents arising from HMR clearance programmes.
- To develop and implement a collaborative approach to housing market restructuring and the comprehensive management of the four zones of Liverpool’s HMR ‘inner core’ area with the City Council, RSLs and other stakeholders.
- To consult with residents affected by Compulsory Purchase Orders (CPOs) in Liverpool, providing information and support during the relocation process.
- To provide a range of relocation options for residents affected by CPOs.
- To develop and implement a comprehensive area-based approach to restructuring the housing market, regenerating neighbourhoods and supporting residents.

The study identified four categories of potential health impacts: relocation, displacement, household income and neighbourhood sustainability as summarised below.
Relocation:
- Moving house is a health damaging event.
- Forced relocation has the greatest negative health impacts.
- Control/lack of control is a key health determinant, particularly in terms of stress related illness.
- A relocation process that includes, inter alia, good communication and support mechanisms can reduce negative health effects.
- Living conditions may deteriorate when there is a change in residents' priority rights in the housing market as a result of relocation.
- Shift in status from a forced to a voluntary mover may reduce negative health effects.
- The vulnerabilities of all residents need to be identified.
- Support needs to be tailored to the needs of individuals with particular emphasis on the vulnerabilities of individuals/groups.

Displacement:
- Displacement of existing communities affects the population dynamics of a neighbourhood, with an associated breakdown of social networks and systems/loss of community cohesion.
- Social networks and systems are key determinants for psychosocial well being, and physical health in the longer term.
- Evidence suggests that as an area regenerates and new people move into an area, neighbourhood prosperity and human capital increases but social capital is not restored.

It should also be noted that impacts on other geographical areas may result from relocation, for example, the concentration of deprivation in destination areas and reduced social cohesion.

Household income:
- The study identified that the residential relocation strategy defined a range of financial products to support home owners relocating into more expensive new or refurbished homes as a result of the clearance. It also noted that this was unusual nationally.
- It identified potential impacts on diet and health resulting from a decrease in available household income as a result of higher rents/mortgages.
- Neighbourhood sustainability.
- The study found that comprehensive area-based approaches help to protect neighbourhood sustainability, preventing a potential decline in the area during clearance (note: the potential for delayed or prolonged regeneration work to lead to area decline), both in terms of the physical and social environment.
- Without this multifaceted approach there is a risk of additional outward migration and further degradation of the area, preventing the regeneration of the area.
- Affects the population dynamics of a neighbourhood, with an associated breakdown of social networks and systems, key determinants for psychosocial well being, and physical health in the longer term. However, it was unclear from the document whether housing supply in buffer zones (around the clearance areas) meets the relocation demands.
HIA of Liverpool City Council's housing strategy

A HIA of LCC's housing strategy was commissioned in 2001 and carried out by IMPACT (Liverpool City Council, 2003). The HIA included the occupational health of construction workers. It highlighted the uncertainty and insecurity faced by tenants during the renovation process.

The recommendations of the report included:

- Construction workers attracted by local employment initiatives require health and safety training.
- The welfare of tenants should be addressed bearing in mind the low levels of numeracy and literacy in parts of the community. This would require frontline officers, dedicated resources, and recruitment from the community.
- "Work shadowing" between frontline housing and healthcare staff.
- Strengthen initiatives which focus on the participation of children and young people.
- Identify health and social facilities that may assist access to older men living in houses in multiple occupation.
- Strengthen the outreach activities of health services.
- Commission more research to identify appropriate ways to access harder to reach groups or “unheard voices”.
- Improve one-stop shops for accessing social and health services.

10.3. Evidence from single studies of housing/regeneration and health (level IV)

Before and after study of tower block renovation

During the late 90s, a before-and-after study was undertaken on the quality of life and health of residents of upgrading 22 tower blocks in Liverpool and moving the residents (Critchley et al., 2004) There were both intervention and control groups. Measurements were made of changes in energy efficiency, temperature, thermal comfort, security, the renewal process,
health status and use of health care services. The residents were mainly retired people who used to work in manual occupations on low incomes. Many of the residents experienced fuel poverty before moving. After moving they were more able to afford to heat their rooms to a comfortable level. A significant minority had difficulty controlling their new central heating system, or were apprehensive about fuel costs. The proportion feeling safe, or very safe, out alone increased from 40% to 55%. About 85% were satisfied with their landlord. About half were stressed by the uncertainty of the move or the upheaval of moving. Those residents reported significantly poorer mental health, low vitality and social function, and more pain. Following the move, there were very high levels of resident satisfaction with their new homes. Consultation with a GP in the previous two weeks fell from 37% to 24%. There was no systematic improvement in health reported. Some reported significant improvements in both emotional wellbeing and vitality. The study included detailed profiles of the residents. The study introduced a concept of “thermal comfort” as a subjective perception of residents. The perceived thermal comfort of residents increased significantly. Many of the residents were suffering from long-standing and limiting illness or disability. This affected the nature of changes in their health and wellbeing. Overall, there was no statistical association between moving into a new home and improved health, based on the 8 dimensions of the SF-36 measure of health outcomes (a statistical measure used in some surveys). On the other hand, the stress associated with the redevelopment process appeared to have a major negative impact on health.

**Shepherd's Bush Housing Association**

In 2003, the Shepherd's Bush Housing Association researched the effect of reinvestment and refurbishment on tenant health (Barnes, 2003). The study used a social survey assessment tool and a self perceived health status survey. It used a control group and reported statistical significance.

The objectives of the study were:

- To investigate the impact of refurbished, new and reallocated housing on health and wellbeing, how other influences on health interact with housing and whether proven health savings can be produced as a result of providing refurbished, new or reallocated housing.
- To establish which components of housing most affect health and, as a result, how resources can best be targeted to improve tenants’ health.
- To develop exemplars of good practice for housing associations, in partnership with other agencies, to improve their tenants’ health and to assess the effect this will have on housing association, local authority and other budgets.
- To examine ways in which best practice can be developed to use improvements in housing and health to improve tenant involvement and the quality of housing management.

The study compared tenants (“tenants”) whose homes were being renovated or who were being reallocated with a control group (“baseline tenants”) whose housing situation was unlikely to change. In total, 284 tenants were surveyed. Surveys took place before and after refurbishment or reallocation. Statistically significant changes were reported. These are summarised as follows:

- Increase in number of baseline tenants who had adaptations.
- Increasing number of baseline tenants who needed adaptations but did not have them.
- More tenants were satisfied than dissatisfied.
- Many tenants were satisfied immediately following improvement and remained satisfied.
- Increase over time in number of tenants who feel that the area in which they live has an influence on their health.
- Tenants felt safer inside their homes.
- Tenants felt safer in the area outside their homes.
- Tenants felt that crime affected their health.
- Tenants felt that the neighbours were friendly.
- Tenants felt that they belonged to the local community.
- Tenants felt that their health was better.
- Sustained and continuing improvements in health status.
- Fewer current health problems.
- Fewer mobility problems.
- Fewer tenants having problems performing their usual activities.
- Fewer tenants having pain and discomfort.
- Optimism about the future decreased over time.

The report concludes with a series of general recommendations about housing refurbishment and reallocation, including the following:

- Prioritise those components of housing refurbishment - central heating, sound insulation and security measures - that give the best returns in terms of health gain.
- Review the level of flexibility for planning the refurbishment programme on the basis of tenants’ needs.
- Ensure that clear information is provided to tenants on the criteria used for prioritisation within the reinvestment programme together with management of their expectations about when they can expect their properties to come into the programme, for example by using a more personalised approach.

**Studies of indoor air pollution and health**

There is an association between respiratory illness and formaldehyde and volatile organic compounds (VOCs). A recent study found strong evidence for a relationship between exposure to recent indoor painting (within previous 12 months) and clinically verified asthma, bronchial hyper-responsiveness (BHR) and nocturnal breathlessness (Wieslander et al., 1996). Kitchen or wood painting was particularly significant. Indoor painting was related to a measurable increase in indoor concentrations of formaldehyde and VOCs from newly painted surfaces.

Formaldehyde is a well-known irritant, and indoor formaldehyde may be emitted from different sources, including tobacco smoke, polyurethane foams, wood chip boards, and paint. The study found an increased formaldehyde concentration related to wood painting. Acid curing paint is a source of formaldehyde, and such paints are commonly used for spray painting of kitchen wood. The study suggests that indoor painting with solvent-based paints or paints with a high emission of formaldehyde should be restricted to a minimum and
ventilation should be maximised. Painting of slowly drying porous surfaces consuming large amounts of paint could be avoided, and paints with low emissions could be developed.

Other studies have tended to reinforce these conclusions. For example, a study of the association between VOCs and asthma among US adults found a significant association particularly to “aromatic compounds” and “chlorinated hydrocarbons” (Arif and Shah, 80). An Australian case-control study compared controls with children aged 6 months to 3 years admitted to accident and emergency rooms and diagnosed with asthma (Rumchev, 2004). Cases were exposed to significantly higher VOC levels than controls. Most of the individual VOCs appeared to be significant risk factors for asthma with the highest odds ratios for benzene followed by ethylbenzene and toluene. For every 10 unit increase in the concentration of toluene and benzene the risk of having asthma increased by almost two and three times. The study concluded that domestic exposure to VOCs at levels below currently accepted recommendations may increase the risk of childhood asthma.

These studies suggest that a proportion of residents may experience respiratory illness during the early post-work phase, when the VOCs from paints and other building materials are at relatively high concentrations. Potential mitigations include the use of low emission paints, sealants and materials in the homes of individuals with a history of asthma.

11. (2) Evidence on the health impacts of the general physical environment

The general physical environment includes the built environment and green spaces that are outside the home.

Housing intervention and regeneration programmes impact on aspects of the general physical environment, for example, through improvements to external hard standings, garden fencing, provision of new doors, windows and changes to the nature, condition and availability of shared, communal and public spaces.

The evidence shows that the condition of the general physical environment, as experienced by tenants and others, has potential impacts on their health and wellbeing. The following (level III) review (adapted from Haigh et al., 2008 and Birley et al., 2009) provides an overview of the associations between the general physical environment and health.

11.1. The built environment and health

There is a growing body of evidence to support the assertion that certain characteristics of the built environment have an impact on key determinants of health such as physical activity and health outcomes such as obesity.

Figure 11 shows a model of the associations between components of the built environment, health determinants and health outcomes with examples of the existing evidence.
In the context of housing interventions and regeneration, the key relationships between the built environment and health are outlined below.

**Crime and safety**

The relationship between the built environment and crime/fear of crime is widely recognised within the literature (e.g. Carmona, 2001) and by Government policy and guidance (e.g. Department of the Environment Circular 5/94 “Planning Out Crime”).

Crime poses substantial risks to the health of victims and perpetrators. Health impacts can be physical and psychological (Robinson, 2000 cited in Haigh et al., 2008).

Fear of crime is a very real and debilitating factor in many people’s lives, particularly in disadvantaged areas, limiting their lifestyles in a way that is detrimental to good health. Our perceptions of the incidence of crime and feelings of personal safety can have a widespread effect on the way we live our lives. The effects of fear of crime may be manifest in behaviour,
for example we may avoid going out alone, stay at home more, or never go out in the dark. These tend to reduce involvement in the local community, increase isolation, reduce physical exercise and contribute to mental illness (Executive, 1999).

The components of the built environment that have been associated with levels of crime and the fear of crime include:

- Housing design and maintenance;
- Accessibility and permeability of streets/areas;
- Surveillance, e.g., from housing (Natural and CCTV);
- Street Lighting;
- Density of housing and other buildings;
- Neighbourhood design, management and maintenance, e.g., graffiti, broken windows and vacant properties within neighbourhoods (Colquhoun, 2004 cited in Haigh et al., 2008).

Older people, women and people with mental illness appear to suffer disproportionately from fear of crime (Whitley, 2005). Women and elderly people have a comparatively low rate of victimisation and a subjectively high fear of crime (Colquhoun, 2004). Young men, in contrast, have a high-risk rate and a lower level of fear. Crime may also impact on the health of those who are not directly victims themselves but who witness traumatic events or are affected by the victimisation of others close to them (Executive, 1999). Interventions to reduce crime/fear of crime may have disproportionate impacts on certain groups.

**Physical activity**

There are associations between the built environment and physical activity, for example, the aesthetic quality of neighbourhoods can impact on levels of physical activity (Frank and Engelke, 2000; Saelens et al., 2003; Swinburn, 2001 cited in Haigh et al., 2008).

**Inclusivity of buildings, adaptations and access**

The inclusivity of buildings is concerned with the appropriateness of buildings for access by disabled groups and users who have difficulties accessing and using buildings because of physical, mental, social or language issues. Inclusivity also relates to groups such as the elderly and parents with young children/pushchairs.

Poor design may limit access to goods, and services and to social and community networks with negative impacts on social, psychological and physical health. Adaptation of housing is an important part of inclusivity.

**Differential Impacts**

Poor people are more likely to live in poor quality built environments and this contributes to poor health (Marmot, 2010). Children and elderly people are particularly vulnerable not only because of a biological vulnerability but also because of the significant numbers of children and elderly who are poor [57].

**11.2. Greenspaces and health**

Surveys repeatedly show how much the public values greenspaces (CABE, 2003), and there is a growing body of evidence showing the importance of greenspaces to health (e.g. Marmot, 2010). Greenspaces are defined as the areas where humans interact with the
natural environment, either through direct access or views of greenspaces. In the City West context greenspaces include public and private gardens, allotments, parks, playing fields, trees, small areas of woodland and local nature reserves.

There is a general intuitive understanding that greenspace is good for individuals, communities and society at large (Tabbush, 2008 cited in Croucher, 2008).

Greenspace may impact upon people’s health and wellbeing through a variety of different pathways. Greenspace:

- provides direct protection from environmental exposures
- promotes restoration, relaxation and reduction in stress
- promotes physical activity
- promotes social interaction and cohesion (Croucher, 2008).

There are also risks associated with greenspaces, for example, anti-social behaviour, used syringes and injury from sports. The quality (including maintenance) and appropriateness of greenspace has an influence on the level of risk.

Greenspaces also act as an environmental sink for carbon dioxide, thereby reducing greenhouse gas emissions.

11.3. Greenhouse gas emissions
There is an increasing body of evidence (e.g. DoH/HPA, 2008) linking greenhouse gas emissions to climate change, and climate change to health impacts. In the UK context the increased frequency of extreme weather events such as floods and heat waves have already illustrated the health impacts of climate change. Housing is a major source of greenhouse gas emissions and also a potential source of major savings. A number of the housing interventions being delivered by City West will contribute to long-term reductions in greenhouse gas emissions. Increased energy efficiency can be accomplished by making provision for additional passive heating and cooling features. These may include external cladding, internal cladding and heat recovery.

11.4. Excess summer heat
Cities are generally 2-4 degrees warmer than the surrounding areas, suffering an 'Urban Heat Island Effect', where heat is trapped in built-up urban areas. Climate Change projections suggest that by 2050, hot summers like that of 2003 (where temperatures topped 38 degrees in some parts of London) could be quite normal. That year around 2000 excess deaths were attributed to the heat-wave. High temperatures can be ameliorated by air-conditioning but the associated carbon dioxide emissions contribute to global warming and should be avoided. Retrofitting for adaptation is then important using passive measures (Three regions climate change group, 2008).

A study of 12 European cities has observed a positive association with temperature and respiratory admissions (Michelozzi et al., 2009). For a 1°C increase in maximum apparent temperature above a threshold, respiratory admissions increased by an average of +3% in the 75+ age group in North-Continental cities. Respiratory disease-related hospital admissions increased for all ages. There was no association between temperature and
cardiovascular and cerebrovascular admissions. As the population ages and the frequency of temperature extremes increases, the impact is expected to increase.

Published guidance on retrofitting to avoid excess heat is as follows:

- Loft and cavity insulation helps a home stay cool in summer as well as keeping it warm in winter.
- A light coloured roof reflects more heat than darker colours.
- Shading south and west facing windows with shutters or awnings is very effective.
- Painting outside walls with light reflective paint will help keep them cooler.
- Low-energy light bulbs give off less heat. Appliances should be turned off when they are not in use, and never left on standby.
- Downstairs carpets can be replaced with wood or tiles, having a care for winter needs.
- Deciduous trees can be planted near houses to provide shade -- they also let the light in during winter.
- Windows should be opened when it is colder outside than inside, especially at night, as this cools down the walls and roof as well as the air inside. This helps the rooms stay cool for longer the next day.
- Windows should be fitted so that they can be opened both at the top and bottom simultaneously (e.g. sash windows). This affords the best cooling.
- Fans should only be used for short periods at midday.
- All double glazing should have low-E rating (Three regions climate change group, 2008).

11.5. Evidence on interventions relating to the built environment (levels I & II)

Falls and accidents

Falls and accidents are a major cause of injury and death in the home, for example, approximately 30% of people over 65 fall each year and injury is the main cause of death and a major cause of ill health and disability in children (further information is below). This is especially significant for tenants of social housing which tend have higher proportions of older people (and people with chronic illnesses and disabilities) than the average population and higher incidence and prevalence of injury of all ages, particularly older people and children. Within the context of housing and neighbourhood improvement, the following sections summarises the evidence relating to two key groups - older people and children.

Older people

In 2004 the World Health Organisation Health Evidence Network (WHO HEN, 2004) conducted a review of reviews (systematic reviews, general reviews and key studies) of the main risk factors for falls amongst older people and the effectiveness of interventions to prevent falls.

According to WHO HEN, older people make up a large and increasing percentage of the population. As people grow older they are increasingly at risk of falling and consequent injuries. A fall may be the first indication of an undetected illness. The prevention of falls is of major importance because they engender considerable mortality, morbidity and suffering for older people and their families, and incur social costs due to hospital and nursing home admissions.
Approximately 30% of people over 65 fall each year, and for those over 75 the rates are higher. Between 20% and 30% of those who fall suffer injuries that reduce mobility and independence and increase the risk of premature death.

Fall prevention programmes can be effective in reducing the number of people who fall and the rate of falls. Targeted strategies aimed at behavioural change and risk modification for those living in the community appear to be most promising. Multifactorial intervention programmes that include risk factor assessment and screening have been shown to be effective.

### Summary of evidence - interventions to reduce falls and injuries

- Home assessment and modification as part of a multifactorial programme can reduce falls in frail older people with a history of falls.
- Assessment and modification of the home on its own, although feasible and widely implemented, appears ineffective in reducing falls or fall injuries amongst older people.

### Children

According to the WHO HEN (2004a) injury is the main cause of death and a major cause of ill health and disability in children. It is also a major cost to health services across Europe. In Western Europe there have been striking declines in injury mortality rates over the last 30 years (Koupilova et al., 2002).

The types of injuries that children have are closely linked to their age and stage of development. Gender is also important: boys are far more likely to die by injury than girls.

Injuries disproportionately affect the most vulnerable children in society. Although most countries lack data, the risk of childhood injury and deaths rise steeply with poverty. The likelihood of a child being killed or injured is associated with a variety of factors, including single parenthood, low education among mothers, very young mothers, poor housing, large family size and parental drug or alcohol abuse. Poverty and its associated social problems increase the risk of injury (UNICEF, 2001).

Studies from the Netherlands and the UK show that mortality and morbidity from injuries are severely under-reported and under-counted. A study of injuries from the Netherlands estimated that for every death from injury, there were 160 hospital admissions and 2000 accident and emergency visits (UNICEF, 2001).

Children are exposed to a wide variety of unintentional injuries: traffic accidents (pedestrian, car passenger and bicyclist), fires, drowning, falls, poisoning and others. Traffic accidents are a major cause of severe injuries in most countries while the relative importance of other causes varies. According to the World Health Organisation, controlling speed is an important way of reducing road traffic injuries, particularly among pedestrians, cyclists and motorcyclists (WHO, 2009a).

### Interventions to prevent injuries in children and older people

The World Health Organisation Health Evidence Network (WHO HEN, 2004a) conducted a review of reviews to establish the effectiveness of interventions to prevent falls in children and older people, their findings are summarised below.
Legislative, environmental modification and educational approaches all have a part to play in preventing or reducing childhood injuries, and their interactive effects are encouraging.

There is some evidence of a reduction in injuries as a result of a smoke alarm distribution programmes.

There is also evidence that window bars are effective in decreasing deaths and falls.

The promotion of safety devices in the home and environmental modifications is a common feature of housing improvement and regeneration programmes. Further information on the evidence of the effectiveness of these specific interventions (taken from WHO HEN, 2004a) is therefore provided below.

**Safety devices**

A systematic review (Towner et al., 2001) identified four studies involving the free distribution of smoke alarms, three of which targeted high-risk neighbourhoods. One study measuring health outcomes reported an 80% reduction in the annual injury rate over a four-year period.

There was evidence on window bars’ positive effect on health outcomes, with a decrease in deaths and reported falls. In 1995, Spiegel and Lindaman (Spiegel and Lindaman, 1995) evaluated a community-based programme aimed at reducing the incidence of falls from high rise windows in the United States. The programme targeted all children living within the high-risk area and was conducted as a before-and-after study, without a control group. The range of interventions included individual counselling, mass media campaigns and free distribution and installation of window guards.

**Environmental modification**

Modifying the environment to make it more “user-friendly” has become a well-regarded approach to injury prevention, benefiting not only children but all people. With approaches ranging from separate pathways for cyclists to improvements in street-lighting, environmental modification provides a real opportunity for public concerns to be addressed by local and national policy. In this way, the responsibility for injury prevention and safety is shared by the whole community.

There is good evidence that area-wide safety programmes are effective in reducing accidents and are of particular benefit to vulnerable road users such as child pedestrians and cyclists. The area-wide approach to traffic management aims to produce safer distribution and lower speed of traffic, especially on residential roads.

There is also good evidence that 30 kmph (20 mph) speed limit zones are effective in reducing both traffic speed and accidents. There is an established link between vehicle speed and the severity of pedestrian injuries. The introduction of 30 kmph speed limit zones in the United Kingdom led to local reductions of child pedestrian and cyclist accidents of as much as 70% and 48%, respectively (Towner et al., 2001). No migration of accidents to other areas was reported.

The installation of rubber or bark surfacing in playground areas is associated with a reduced rate of childhood injury, and a reduction in the height of monkey bars would also reduce injury (Towner et al., 2001).
Home modification
Extrinsic risk factors for falls and fall-related injuries include the presence of a range of hazards within the home, including loose carpets, clutter on the stairs and slippery surfaces. Interventions can include the introduction of assistive devices such as grab rails or practices such as removing objects left on the stairs. Gillespie et al., report three trials with a substantial home hazard component (Gillespie et al., 2003). Several studies have reported data supporting the interventions’ effectiveness (Cumming et al., 1999; Hornbrook et al. 1994), but the exact mechanisms of the effect remains uncertain (Gillespie et al., 2003), and the level of the population’s resistance to environmental modification is unknown.

Close Circuit Television (CCTV)
According to a systematic review published by the Campbell Collaboration (Welsh & Farrington, 2008) CCTV has a modest but significant desirable impact on crime rates, according to a systematic review published by the Campbell Collaboration. In particular, CCTV is most effective against vehicle crimes in parking lots - crime decreased by half in car parks covered by CCTV compared to those without cameras. The intervention also seems to lead to greater reductions in crime rates in the United Kingdom, compared to other countries. CCTV worked best when it was combined with other interventions such as improved street lighting.

Improved street lighting
Improved street lighting can contribute to significantly reduce crime, according to a systematic review published by the Campbell Collaboration (Welsh & Farrington, 2008a). The review found that crime decreased by 21% in areas that experienced street lighting improvements compared to similar areas that did not. The review also notes that street lighting appears more effective at reducing crime in the United Kingdom compared to the United States – a 38% reduction compared to 7%. The review also identified a relationship between improved street lighting and improved community pride/social cohesion.

12. (3) Strategies and guidance on promoting the design and delivery of healthy sustainable communities
This section focuses on evidenced based strategies and guidance on the promotion of healthy sustainable communities through housing improvement and regeneration. The advice from two key bodies is considered:

- The Marmot Review Task Group on the built environment and health.
- The Commission for Architecture and the Built Environment (CABE).

12.1. The Marmot Review (Task Group 4 – Built Environment and Health)
The Marmot Review (Marmot, 2010) provides an evidence-based strategy for reducing health inequalities in England. The findings and recommendations of the Marmot Review are a key consideration for agencies/actors involved in the design and delivery of healthy sustainable communities. Summary findings and recommendations are below.

- Transformative approach: Concerted area programmes, targeting specific problems such as crime, neighbourhood, environments, school meals, pre-school
programmes (e.g. Sure Start), help address those local problems locally. This makes them highly visible, involves the local community and therefore has bigger impact.

- **Traffic calming**: Traffic-calmed residential streets, safe cycle and pedestrian routes are much safer for families, children, young people and the elderly. We should extend 20 mph speed limit to all built up areas and residential neighbourhoods, and 10mph for Home Zones. We should have protected urban cycle ways.

- **Green infrastructure**: Green infrastructure makes urban living healthy and encourages physical activity. There should be a park or small supervised (overlooked) play area within 4 minutes walk of every family home. These must be well designed, overlooked and family friendly. Community gardens and allotments are also very good for health, particularly for older people, and we should develop a new push on growing your own food.

- **Transport**: Public transport and green infrastructure are complimentary in promoting active travel and less reliance on cars. Planners and urban designers have a vital part to play in promoting public health by providing environments where physical activity is encouraged through active travel. An integrated public transport policy should help shape urban planning.

- **Local supervision**: Targeting crime prevention and street security would reduce stress and increase children’s ability to play freely and safely. We should make regular street and park policing alongside local neighbourhood management a required function for local government and local policy. Without informal as well as formal supervision people in poor areas will not feel safe.

- **Continual investment**: Improving the physical environment and tackling derelict buildings reduces the opportunity for crime and gives positive behaviour signals to young people. It leads to increased density of people and activity and therefore a greater sense of security and natural surveillance. Thus we should continue neighbourhood renewal programmes on an ongoing basis. Making streets and areas more attractive and better cared for encourages social contact, helps prevent disorder and enhances people’s well being.

- **Energy saving and fuel poverty**: Home upgrading in poorer areas brings many benefits, including greater energy and water efficiency, tackling fuel poverty, helping attract more mixed communities and mitigating the impact of climate change. We recommend that Government develop a comprehensive programme of energy efficiency measures to implement the ambition set out in the recent Heat and Energy Savings Strategy consultation. This should target deprived areas through programmes such as the Community Energy Savings Programme and introduction of an energy focused Decent Homes 2. Funding mechanisms must be in place to enable households across all tenures to upgrade their homes.

- **Public health**: Direct Public Health campaigns promote preventative health measures and can also prevent and reduce violence, improve diets, reduce stress, anxiety, disorders and encourage action to tackle climate change. To succeed they depend on participation and empowerment. Special efforts are needed to include minorities in community activities. They need community meeting places and community development inputs in order to work in very poor areas; schools and churches could often provide these facilities. We should insure village halls exist in every community so beneficial activity have a local home.
• **Planning system**: The Planning system plays a very important role in enabling or diminishing these recommendations. Public health should be involved in planning, to ensure that public health interventions such as lower speed limits and safe routes to schools etc are built into new and upgraded area plans. (Marmot et al., 2010)

12.2. **Commission for Architecture and the Built Environment**

The Commission for Architecture and the Built Environment (CABE) is the Government’s advisor on architecture, urban design and public space.

The nature of the guidance varies. However, it often includes reviews of evidence on the relationships between health and the physical environment and advice on measures/approaches to ensure healthy design.

The following publications have been selected because they are relevant to the design and delivery of healthy neighbourhoods through investments programmes and regeneration schemes. Within the City West context they are relevant to the re-design of the public and open spaces that fall under City West’s control that are included in their commitment to ‘environmental improvements’. The advice provided within the guidance is consistent with the findings of the broad body of evidence considered within this study (e.g. The Marmot Review Task Group 4, 2009) and modern approaches to the design and delivery of healthy sustainable communities. Summary information and links to the reports are included below.

• CABE (2008) Designing and planning for play - public space lessons  
  http://www.cabe.org.uk/publications/designing-and-planning-for-play

‘Designing and planning for play has been published to encourage local authorities to ... create spaces that allow children to use their imagination, with natural play design.’

• CABE (2008) Inclusion by design - equality, diversity and the built environment  
  http://www.cabe.org.uk/publications/inclusion-by-design

‘Inclusion by design sets out CABE’s position on equality, diversity and the built environment. It offers everyday examples from urban living demonstrating how good design can help create places that work for everyone.’

• CABE (2007) Living with risk promoting better public space design  

‘Briefing explores how reaction to health and safety concerns is affecting the quality of streets, parks and squares.’


‘The cost of bad design features essays commissioned by CABE to highlight what happens when buildings and spaces go wrong.’

• CABE (2006) Physical activity and the built environment  
‘The annual cost of inactivity and obesity in England is over £10 billion. This CABE briefing highlights opportunities for using the built environment – our streets and neighbourhoods, our parks and our workplaces – to reduce this burden on our health service. If the government’s hope of transforming the population into a fitter and more active nation are to be sustained beyond the 2012 Olympics it is essential that we offer more opportunities for activity in our everyday life.’


‘Is the grass greener…? Learning from international innovations in green space management demonstrates how 11 cities from Melbourne and Minneapolis, to Curitiba in Brazil are improving their residents’ health, wealth and quality of life by investing in parks.’


‘The value of public space shows how cities in the UK and around the world have received far-reaching economic, health and social benefits from making the best of their public spaces.’
13. Evidence from stakeholders and key informants

13.1. Introduction

This section presents the evidence gathered from stakeholders and professional key informants, including focus groups, one to one interviews and a telephone survey. Stakeholder evidence can be particularly valuable in identifying issues, impacts and recommendations that relate specifically to local people and the programme. Professional key informants can bring a detailed understanding of the elements of the programme and/or a wider view and a degree of validation.

‘Stakeholders’ are defined as individuals or groups of people who have a stake in the policy or project under investigation. ‘Key informants’ are experts or specialists in a specific field such as the Housing Health and Safety Rating System (HHSRS) or the relationships between housing and health.

Categories of community stakeholders, organisational stakeholders and key informants were defined in a mapping process. From this stakeholder map, groups and individuals to be engaged in the HIA were identified by random (in the case of City West customers), purposive and snowballing sampling methods (for organisational stakeholders and key informants).

Stakeholders were invited to attend a series of workshops. Unfortunately the number of people who accepted invitations to the workshops was very low, when compared to similar HIAs, and the number of attendees was even lower, perhaps symptomatic of potential issues of community engagement in West Salford. To address the issue of low representation three additional approaches were undertaken by IMPACT, as follows:

- A representative from IMPACT attended the annual City West customer feedback event to pose questions relating to the HIA in one of the workshops and identify individuals that would like to be interviewed for the purposes of the HIA.
- IMPACT conducted a series of one to one interviews with stakeholders to discuss their understanding of the issues, health impacts and potential recommendations relating to the improvement programme. In addition to providing evidence in their own right, these in depth interviews were used to inform the development of a telephone survey of a wider, more representative, group of City West customers.
- IMPACT commissioned a telephone survey of a 5% sample of City West Customers to identify health issues/impacts and assess consistency/consensus with the findings of the one to one interviews/workshops.

During the same period the interviews with organisational stakeholders and key informants were also undertaken. These mainly focused on developing, where appropriate, a detailed understanding of the activities of City West (e.g. understanding and approach to the Housing, Health and Safety Rating System, and their approach to information management), the implementation of the improvement programme (e.g. nature, timing and phasing of works, and procurement of goods and services) and their approach to customer care. Any evidence relating to health impacts and recommendations identified by organisational stakeholders/key informants are included within the relevant sections of this report (Evidence
from stakeholders and key informants, HIA quantification, health impact analysis and HIA recommendations).

13.2. **Community stakeholder workshops and one to one interviews**
The aim of the workshops and one to one interviews were to offer City West customers the opportunity to consider and share views on the potential impacts of the improvement programme on their health and wellbeing.

The objectives were:
- To providing information about the main elements of the improvement programme and the HIA project.
- To identify and discuss the potential effects of the improvement programme on health and wellbeing, and how those effects could be managed to ensure that opportunities to improve health and wellbeing are maximised and how any potential risks to health and wellbeing could be minimised.

16 people participated in the HIA workshops/interviews.

Prompts/questions from the workshops were used in the annual City West customer feedback event workshop. Over twenty people attended the workshop.

The programme and content of the HIA workshops, based on tried and tested best practice; was adapted for use in the one to one interviews. An example of a HIA workshop programme is contained within appendix 4 (page 140).

13.3. **Resident telephone survey**
The purpose of the telephone survey was to reach a wider sample of stakeholders than those who were involved in the HIA workshops and one to one interviews, particularly given the unusually low turnout at the workshops, and to ascertain the level of consensus between the different participants. It was designed to assess the impact of the City West improvement programme on social housing tenants' health and wellbeing in four improvement areas across West Salford.

**Telephone survey methodology**
IMPACT and Vision Twentyone designed a questionnaire with 15 questions about the improvement programme in addition to basic demographic questions such as age, gender, ethnicity, type of housing and location. A copy of the telephone survey can be found in appendix 5 (page 141).

786 telephone interviews were conducted with residents from approximately 5% of City West properties (a statistically significant sample). The sample was randomly selected and stratified by area and ethnicity of which approximately 6% were from the BME community reflecting the proportion of BME groups in the wider population of West Salford.

The telephone interviews were conducted by Vision Twentyone utilising Computer Aided Telephone Interviewing (CATI) technology. The fieldwork team were briefed on the nature of the research and IMPACT’s work. The interviewers were experienced at conducting interviews of this nature having previously carried out health surveys for the North West Public Health Observatory, PCTs, health trusts and previous surveys for IMPACT. Calls
were made at various times of day including evenings and weekends to ensure the highest contact rate possible and allow feedback from people who worked during the daytime/weekdays. Call back appointments were set to interview those who were unavailable to take part at the time of the initial call.

Once Vision Twentyone exceeded the target of 750 completed interviews, the survey data was cleaned, quality checked and data analysis completed. A report was then produced and submitted to IMPACT.

Demographic information from the survey is contained within appendix 6 (page 142). Not untypical in such surveys, there was a response rate bias towards females and older age groups.

13.4. Results of the engagement process

The findings of the engagement process are summarised below; this includes the information received from the workshops, one to one interviews and the telephone survey. The process highlighted two main phases of potential impacts – the construction phase and the operational phase (once work was complete).

Construction phase

Participants in the telephone survey identified a range of potential negative impacts caused by disruption during the construction phase.

- 57.4% of people thought that the construction work would affect people’s stress levels.
- 52.5% of people thought it would affect activities inside the home like cooking, cleaning and watching TV.
- 31% of people thought it would affect home security or people’s fear of crime.
- 28.9% of people thought it would affect home safety/risk of accidents (e.g. falls in the home, electric shocks).
- 26% of people thought it would affect local transport (and parking) and people’s ability to access work, shops or services.
- 20.5% of people thought it would affect activities outside the home like children’s play, walking, running and cycling.
- 7.3% of people thought it would affect children’s education.

In addition, participants in the workshops, one to one interviews and telephone survey identified the following potential issues:

- Noise pollution
- Dust pollution
- Asbestos
- Effects on hygiene/cleanliness
- Damage to property
- Car parking
- Affects on TV and satellite dishes
- Building waste/rubbish/litter
- Leaks/flooding
- Effects on adult students
• Fault finding/snagging
• Effects on home decor/costs of re-decoration
• Difficulties moving furniture back in place
• Lack of respect for homes/property
• General inconvenience
• Loss of privacy
• Difficulties attending appointments (e.g. Drs) to let tradesmen in
• Taking time off work to let tradesmen in
• Disruption to pavements/walkways
• Skips blocking streets pavements
• Loss of heating during cold periods
• Wear and tear on flooring/carpets
• Loss of sleep on night shifts
• Effects on household pets
• Concerns about the impacts of relocation

Although some of the issues identified are specific to the City West improvement programme, the issues and impacts identified are consistent with other studies of housing and neighbourhood interventions/HIAs (e.g. Birley et al., 2009). The engagement process in this HIA, like others before (e.g. Birley et al., 2009), has identified that there are a wide range of potential negative impacts of the construction phase on the activities of everyday life, and associated stress levels. It has also highlighted a number of potentially vulnerable groups (those likely to be most negatively affected) that include older people, people with illnesses/disabilities, people with mental health problems and families with young children. It should be noted that some of these effects may continue into the early operational phase, for example, issues relating to fault finding/snagging and associated stress. These effects were identified both by people who had already experienced construction work and those who had not. Some of the participants in the workshops/one to one interviews identified that the impacts on stress/worry preceded the commencement of work, particularly in the absence of clear and consistent information about the nature and timing of proposed work.

Operational phase
Participants in the telephone survey identified a range of potential impacts during the operational phase, these are summarised as follows:

• 81.8% of participants thought there would be a positive impact on people’s ability to heat their homes, 1.8% thought the impact would be negative and 11.5% thought there would be no effect.
• 80.3% of participants thought there would be a positive impact on people’s sense of wellbeing, 1.3% thought the impact would be negative and 13.9% thought there would be no effect.
• 67.8% of participants thought there would be a positive impact on Home security or people’s fear of crime, 1.7% thought the impact would be negative and 24.8% thought there would be no effect.
• 66.7% of participants thought there would be a positive impact on activities inside the home like cooking, cleaning and watching TV, 0.8% thought the impact would be negative and 28% thought there would be no effect.
• 65.3% of participants thought there would be a positive impact on people's sense of community/community pride, 1% thought the impact would be negative and 25.1% thought there would be no effect.

• 66.5% of participants thought there would be a positive impact on home safety/risk of accidents (e.g. falls in the home, electric shocks), 0.9% thought the impact would be negative and 27.6% thought there would be no effect.

• 59.3% of participants thought there would be a positive impact on Relationships with family and friends (e.g. inviting people over), 1% thought the impact would be negative and 33.6% thought there would be no effect.

• 47.3% of participants thought there would be a positive impact on Activities outside the home like children’s play, walking, running and cycling, 1.3% thought the impact would be negative and 43.9% thought there would be no effect.

In addition, participants in the workshops, one to one interviews and telephone survey identified the following potential positive effects:

• Increased pride in home and neighbourhood
• Improved perception of the area
• Better standards of living
• Improved street signs/furniture
• Increased job opportunities/economic activity
• Improved local environment
• Reduced carbon footprint
• Improved relationships with housing provider (City West)
• Increased incentive to look after homes
• Improved sense of community

Some participants identified that the involvement of tenant’s in the process of planning for work, e.g. selecting materials, has a positive impact on wellbeing.

They also identified the following potential negative impacts:

• Increases to rents resulting from work being carried out
• Issues relating to maintenance of homes/home improvements
• Maintenance of gardens
• General maintenance of the local neighbourhood, e.g. bin collections and litter
• Worries that City West will run out of money before the works complete
• Impacts on people who aren’t getting work done/jealousy
• Concerns about completing adaptations for the disabled/elderly
• The process of snagging and fault finding/reporting

Community stakeholders also identified concerns relating to the provision and condition of local shops/facilities. Community and organisational stakeholders highlighted the importance of these local facilities, particularly for people without access to cars/vehicles. Organisational stakeholders identified that City West are currently developing plans for future investment in some local shops/facilities (e.g. on the Brookehouse estate).
Organisational stakeholders identified the future possibility of City West developing new housing on land currently under their control. Although this goes beyond the scope of this HIA, the potential loss of open/greenspace was identified as a potential future health issue.

The engagement process identified that, overall, most participants thought that the improvements will have positive impacts on health and wellbeing. However, they also identified a number of concerns about potential negative impacts. They identified that some of these concerns might be addressed through improved communication between City West and residents.

The process highlighted a number of potentially vulnerable groups (those most likely to be affected either positively or negatively) that include older people, families with young children, people with illnesses/disabilities and young people.

13.5. Summary of recommendations

Communication, complaints and information management

- Provide a minimum of 2 and preferably 4 weeks’ notice before work commences and provide detailed information on the nature and phasing of work to customers.
- Provide customers with regular updates and early prior notice of any delays/cancellations.
- Use of alternative forms of communication, for example, videos and audio CDs.
- Increase the frequency of the City West Newsletter and look at the possibility of collaborative newsletters with partners in Salford, for example Salford City Council or Primary Care Trust (PCT).
- Include statements from residents who have experienced the work being carried out in information about the improvement programme.
- Conduct more face to face visits in people’s homes.
- City West customers need assurance that the money won’t run out (because of the current economic climate/cuts) and that the improvement works will be completed.
- Review Considerate Contractors Scheme (CCS) mechanisms for reporting problems with contractors and provide a direct complaints procedure using the existing City West complaints helpline (with City West then contacting the CCS on behalf of customers).

Vulnerable residents

- Contractors need to be able identify a wider range vulnerable groups such as those with unseen physical disabilities, mental health issues or learning difficulties.
- Identify vulnerable groups and provide them with specific support packages.

Home improvements

- Provide additional air vents in the homes of smokers.
- Maintain improvements into the long-term.
- Ensure impacts on home furnishings are minimised, cleaned-up or repaired.
- Ensure construction waste and litter is cleaned-up.

Environmental improvements

- Work with partners to improve street cleanliness and maintenance.
• Carry out environmental improvements as soon as possible and alongside housing improvements.
• Use current examples of City West best practice for environmental improvements (e.g. the City West “Garden Guerrillas”) in more areas.
• Provide information and support to customers who want to grow food at home and in allotments.
• Make access to open spaces easier for disabled people.

Adaptations for the disabled
• Publicise the adaptations for the disabled service more widely.

Relocation
• Let customers decide where they want to be relocated when it’s required as part of the programme.

Decision making
• Get more people involved in decision making and not just the ‘usual suspects; in particular, reach out to young people.

Resident safety
• Provide more information on construction site risks and safety.

13.6. Consensus Building Workshop

Introduction
All stakeholders and key informants who had contributed evidence to the HIA were invited to attend a consensus building workshop. The aim of which was to develop consensus or agreement on the priority health impacts between stakeholders who may potentially be affected by the improvement programme, and to agree recommendations to inform the HIA steering group and final report. Seven community stakeholders attended.

Following introductions and a brief explanation of the purpose of the workshop, the initial findings from all the evidence gathered to date were presented and discussed during a presentation.

The presentation focused on the following initial findings:
• Community participation/engagement
• Improved housing
• Poor environments
• Standards of work
• Identification of vulnerable customers
• Impacts of the construction works
• The tentative recommendations from the HIA were then identified and discussed. These included:
• Identification of vulnerable residents
• Support to residents
• Communication
• Customer led control and involvement
• Links to other agencies/actors
• Construction safety
• Procurement
• The Housing Health and Safety Rating System (HHSRS)
• Climate change
• General physical environment
• Phasing of works and implementation

The group was asked to identify any major omissions and to comment on how the findings and recommendations related to their views on the potential health impacts. All participants identified that they were happy with the initial findings and recommendations of the HIA as presented. The group discussed a range of factors that were associated with the initial findings of the HIA; they provided information and recommendations that help to refine the initial HIA findings and recommendations.
14. Quantification of housing related impacts

14.1. Introduction
The quantification of housing related impacts involves using numbers to describe current housing related impacts on health outcomes (number of people experiencing certain health impacts) in the CW population and then estimating the change resulting from the improvement programme. Quantification can only be carried out where there is sufficient evidence, available data and appropriate model available. The quantification of housing related health impacts within HIA is a new and developing area. This HIA has involved piloting a method for quantification of health impacts which utilises the Housing Health and Safety Rating System. The purpose of this to identify:

- whether this method could be applied to the CW context;
- potential changes in health outcomes for a limited number of hazards; and
- if the method proves to be useful to identify how to take this further.

14.2. HHSRS Background
The 2004 Housing Act replaced the Fitness Standard with the Housing Health and Safety Rating System (HHSRS). HHSRS came into force on 6 April 2006. The Rating System represents a fundamental change of approach from a check list system to one based on evidence based risk assessment. Properties are assessed for the likelihood of harm arising from a hazard, and the degree of harm that may occur.

A score is then calculated, which fall on a scale of A (highest) to J (lowest). Hazards in categories A to C constitute Category 1 hazards, those in Categories D to J are Category 2 hazards. The Decent Home Standard requires homes to be free from Category 1 hazards.

Research linking conditions in the housing environment to health were used as the basis for identifying potential housing and to provide details for the hazard profiles. The system identifies 29 possible hazards that could occur in a property. The hazards are categorised in four groups: Physiological, Psychological, Infection and Accidents (see Table 23). Comparison of the prevalence of hazards to provide national benchmarks were provided from the statistical analyses of matched housing and health databases.

The health outcomes from the identified housing hazards include physical injury, physical or mental illness, or other health conditions. Outcomes are grouped into 4 classes all of which are considered significant enough to require medical attention.

The rating system identifies those categories of people most at risk from each hazard. Categories include: all people, children under 14, children under 5, older people over 65. The hazard score is calculated in respect of the most vulnerable potential occupier (whether or not such a person is resident at the property).
Table 23 Potential housing hazards according to HHSRS

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<thead>
<tr>
<th>Physiological</th>
<th>Infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damp and mould growth etc</td>
<td>Domestic hygiene, pests and refuse</td>
</tr>
<tr>
<td>Excessive cold</td>
<td>Food safety</td>
</tr>
<tr>
<td>Excessive heat</td>
<td>Personal hygiene, sanitation and</td>
</tr>
<tr>
<td>Asbestos etc</td>
<td>Drainage</td>
</tr>
<tr>
<td>Biocides</td>
<td>Water supply</td>
</tr>
<tr>
<td>CO and fuel combustion productions</td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td></td>
</tr>
<tr>
<td>Radiation</td>
<td></td>
</tr>
<tr>
<td>Uncombusted fuel gas</td>
<td></td>
</tr>
<tr>
<td>Volatile organic compounds</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Psychological</th>
<th>Accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crowding and Space</td>
<td>Falls associated with baths etc</td>
</tr>
<tr>
<td>Entry by intruders</td>
<td>Falling on level surfaces</td>
</tr>
<tr>
<td>Lighting</td>
<td>Falling on stairs etc</td>
</tr>
<tr>
<td>Noise</td>
<td>Falling between levels</td>
</tr>
<tr>
<td></td>
<td>Electrical hazards</td>
</tr>
<tr>
<td></td>
<td>Fire</td>
</tr>
<tr>
<td></td>
<td>Flames, hot surfaces etc</td>
</tr>
<tr>
<td></td>
<td>Collision and entrapment</td>
</tr>
<tr>
<td></td>
<td>Explosions</td>
</tr>
<tr>
<td></td>
<td>Position and operability of amenities</td>
</tr>
<tr>
<td></td>
<td>Structural collapse and falling element</td>
</tr>
</tbody>
</table>

Table 24 Examples of classes of harm from HHSRS

Class I
This covers the most extreme harm outcomes. It includes – Death from any cause; Lung cancer; Mesothelioma and other malignant lung tumours; Permanent paralysis below the neck; Regular severe pneumonia; Permanent loss of consciousness; 80% burn injuries.

Class II
This Class includes severe conditions, including – Cardiorespiratory disease; Asthma; Non-malignant respiratory diseases; Lead poisoning; Anaphylactic shock; Cryptosporidiosis; Legionnaires disease; Myocardial infarction; Mild stroke; Chronic confusion; Regular severe fever; Loss of a hand or foot; Serious fractures; Serious burns; Loss of consciousness for days.

Class III
This Class includes serious conditions such as – Eye disorders; Rhinitis; Hypertension; Sleep disturbance; Neuro-psychological impairment; Sick building syndrome; Regular and persistent dermatitis, including contact dermatitis; Allergy; Gastro-enteritis; Diarrhoea; Vomiting; Chronic severe stress; Mild heart attack; Malignant but treatable skin cancer; Loss of a finger; Fractured skull and severe concussion; Serious puncture wounds to head or body; Severe burns to hands; Serious strain or sprain injuries; Regular and severe migraine.

Class IV
This Class includes moderate harm outcomes which are still significant enough to warrant medical attention. Examples are – Pleural plaques; Occasional severe discomfort; Benign tumours; Occasional mild pneumonia; Broken finger; Slight concussion; Moderate cuts to face or body; Severe bruising to body; Regular serious coughs or colds.

14.3. Methodology
We have adapted a HHSRS based approach as used recently in two HIAs to assess potential health impact resulting from housing improvement programmes (Gilbertson et al.,
Identify priority hazards for quantification
Establish baseline hazard conditions (likelihood of harm and range of health outcomes) for selected hazard use existing national level data for the dwellings and subsequent likelihood of harm data;
Refine the baseline by applying City West stock profile (age and archetype) accounting for differences between national housing condition and City West housing condition;
HHSRS panel (City West and IMPACT) estimates the reduction in harms (likelihood and spread of harm) resulting from the improvement programme work packages.

Estimate harm reduction by subtracting reduced estimate from baseline. The results would include the reduced likelihood of harm and range of health outcomes.

Figure 12 Stages in quantification

Identify priority hazards
Criteria were developed to select priority hazards for piloting the methodology on (see Table 25):
- Hazard will be significantly impacted on by programme
- Significant health impact according to HHSRS (likelihood and severity)
- Significant health impact according to socio-environmental model of health (based on World Health Organisation recommendations)
- Local knowledge of current hazards
- Maximum of 4 hazards

Hazard scores are calculated as part of the HHSRS process. They are the sum of the products of the weightings for each Class of Harm which could result from the particular
hazard, multiplied by the likelihood of an occurrence, and multiplied by the set of percentages showing the spread of Harms. The hazard score provides an aggregate number which combines a range of factors. This number can be then used to compare and judge hazards.

The numerical Hazard Score can appear too specific. It can also falsely imply that the score is a precise statement of the risk, rather than a representation of the inspector’s judgment. Hazard Bands have been devised to avoid emphasis being placed on what may appear to be a precise numerical Hazard Score. These also provide a simple means for handling the potentially wide range of Scores – from under 0.2 to 1,000,000.2

<table>
<thead>
<tr>
<th>Hazard Band</th>
<th>Hazard Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5,000+</td>
</tr>
<tr>
<td>B</td>
<td>2,000-4,999</td>
</tr>
<tr>
<td>C</td>
<td>1,000-1,999</td>
</tr>
<tr>
<td>D</td>
<td>500-999</td>
</tr>
<tr>
<td>E</td>
<td>200-499</td>
</tr>
<tr>
<td>F</td>
<td>100-199</td>
</tr>
<tr>
<td>G</td>
<td>50-99</td>
</tr>
<tr>
<td>H</td>
<td>20-49</td>
</tr>
<tr>
<td>I</td>
<td>10-19</td>
</tr>
<tr>
<td>J</td>
<td>&lt;10</td>
</tr>
</tbody>
</table>

In order to meet Decent Homes, a dwelling should not have any ‘Category 1’ hazards - a score of 1,000+

The most significant housing hazards associated with health effects according to the World Health Organisation:

- Poor air quality (particles and fibres that can cause death among the very ill)
- Poor hygrothermal conditions (excess heat, cold or humidity)
- Radon
- Slips, trips and falls
- Noise
- House dust mites
- Ambient tobacco smoke
- Fires

A shortlist of four hazards were selected. The process was then piloted on two hazards. It was decided that the time and resources available meant that the carrying out the process on more hazards would be beyond the scope of this HIA. However the baseline scenario for four hazards has been calculated and included in the results.

1 The seriousness of the hazards has been ranked according to the number of people affected, the seriousness of the effects and the strength of evidence. (http://www.euro.who.int/document/E85725.pdf)
Hazards selected (hazards in **bold** were included in the quantification exercise):

- Excess cold
- Entry by intruders
- Falls associated with baths
- Damp and mould growth
<table>
<thead>
<tr>
<th>Hazard</th>
<th>Programme impact (no, minor, major)</th>
<th>HHSRS</th>
<th>National average hazard score</th>
<th>Hazard band</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive cold</td>
<td></td>
<td>380</td>
<td>926</td>
<td>D</td>
</tr>
<tr>
<td>Entry by intruders</td>
<td></td>
<td>12</td>
<td>333</td>
<td>E</td>
</tr>
<tr>
<td>Falling on level surfaces</td>
<td></td>
<td>135</td>
<td>181</td>
<td>F</td>
</tr>
<tr>
<td>Falling on stairs etc</td>
<td></td>
<td>245</td>
<td>134</td>
<td>F</td>
</tr>
<tr>
<td>Radiation</td>
<td></td>
<td>7853</td>
<td>116</td>
<td>F</td>
</tr>
<tr>
<td>Collision and entrapment</td>
<td></td>
<td>39</td>
<td>57</td>
<td>G</td>
</tr>
<tr>
<td>Flames, hot surfaces etc</td>
<td></td>
<td>182</td>
<td>42</td>
<td>H</td>
</tr>
<tr>
<td>Crowding and Space</td>
<td></td>
<td>8000</td>
<td>19</td>
<td>I</td>
</tr>
<tr>
<td>Fire</td>
<td></td>
<td>4760</td>
<td>17</td>
<td>I</td>
</tr>
<tr>
<td>Damp and mould growth etc</td>
<td></td>
<td>464</td>
<td>11</td>
<td>I</td>
</tr>
<tr>
<td>Falls associated with baths etc</td>
<td></td>
<td>4026</td>
<td>7</td>
<td>J</td>
</tr>
<tr>
<td>Noise</td>
<td></td>
<td>900</td>
<td>6</td>
<td>J</td>
</tr>
<tr>
<td>Falling between levels</td>
<td></td>
<td>1693</td>
<td>4</td>
<td>J</td>
</tr>
<tr>
<td>Food safety</td>
<td></td>
<td>4960</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Electrical hazards</td>
<td></td>
<td>16869</td>
<td>2</td>
<td>J</td>
</tr>
<tr>
<td>CO and fuel combustion productions</td>
<td></td>
<td>1250</td>
<td>1</td>
<td>J</td>
</tr>
<tr>
<td>Personal hygiene, sanitation and drainage</td>
<td></td>
<td>7750</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Explosions</td>
<td></td>
<td>156528</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Position and operability of amenities etc-poor ergonomics?</td>
<td></td>
<td>12925</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Risk Factor</td>
<td>Value</td>
<td>Probability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>---------</td>
<td>-------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural collapse and falling element</td>
<td>11170</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncombusted fuel gas</td>
<td>83784</td>
<td>0.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>58400</td>
<td>0.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessive heat</td>
<td>900000</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asbestos etc</td>
<td>3300000</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water supply</td>
<td>1423649</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biocides</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volatile organic compounds</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lighting</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic hygiene, pests and refuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Establish baseline conditions

In order to assess the impact of CW housing programme on the identified health outcomes the baseline situation must be identified. This has been done by applying national likelihood ratios to the CW stock profile. In this situation we are assuming that the CW stock is in similar condition to the national average. This places a limitation on the accuracy of estimation. Future work could refine the baseline further by using expert opinion and HHSRS housing surveys to adapt the national likelihood ratios to reflect any differences between CW and national average housing stock.

For each hazard the number of persons affected was calculated for each housing archetype and class of harm (see Error! Not a valid bookmark self-reference. and Table 27). Following the approach used in the HHSRS operating guidance and also in the Gilbertson HIAs we calculated a range of likelihood. Similar to the use of Hazard Bands in the HHSRS, presenting a range of likelihoods assists people reading the report to understand that the numbers calculated are not a precise statement of the risk, rather than a representation of the inspector’s judgment. The formula used to calculate the range is $10^{\log(x) - 0.125}$.

Table 26 Excess damp and cold average likelihood and number of people suffering harm

<table>
<thead>
<tr>
<th>Dwelling type and age</th>
<th>population</th>
<th>Average likelihood 1 in</th>
<th>lower</th>
<th>upper</th>
<th>number of people suffering harm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-HMO Pre 1920</td>
<td>689</td>
<td>446 595 334</td>
<td>0.0</td>
<td>0.0</td>
<td>Class I lower</td>
</tr>
<tr>
<td>1920-45</td>
<td>6849</td>
<td>400 533 300</td>
<td>0.0</td>
<td>0.0</td>
<td>Class I upper</td>
</tr>
<tr>
<td>1946-79</td>
<td>18255</td>
<td>446 595 334</td>
<td>0.0</td>
<td>0.0</td>
<td>Class II lower</td>
</tr>
<tr>
<td>Post 80</td>
<td>1330</td>
<td>725 967 544</td>
<td>0.0</td>
<td>0.0</td>
<td>Class II upper</td>
</tr>
<tr>
<td>Pre 1920</td>
<td>0</td>
<td>430 573 322</td>
<td>0.0</td>
<td>0.0</td>
<td>Class II lower</td>
</tr>
<tr>
<td>1920-45</td>
<td>9</td>
<td>219 292 164</td>
<td>0.0</td>
<td>0.0</td>
<td>Class III lower</td>
</tr>
<tr>
<td>1946-79</td>
<td>0</td>
<td>967 1,290 725</td>
<td>0.0</td>
<td>0.0</td>
<td>Class III upper</td>
</tr>
<tr>
<td>Post 80</td>
<td>0</td>
<td>644 859 483</td>
<td>0.0</td>
<td>0.0</td>
<td>Class IV lower</td>
</tr>
<tr>
<td>Total</td>
<td>27132</td>
<td>Total</td>
<td>0.0</td>
<td>0.0</td>
<td>Total</td>
</tr>
</tbody>
</table>

Range 40.6 72.0
Table 27 Excess damp and cold spread of harm according to class of harm

<table>
<thead>
<tr>
<th>Class I</th>
<th>Class II</th>
<th>Class III</th>
<th>Class IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>10</td>
<td>89</td>
</tr>
</tbody>
</table>

**Estimate impact of CW housing improvements**

Members of the HIA team met with 3 members of CW to estimate the reduction in harms resulting from CW. This included one member of staff with a detailed understanding of the implementation of the improvement programme and two members of staff with HHSRS and related expertise. The actual estimate of change in likelihood was made by an experienced surveyor, trained in HHSRS in discussion with the team. This surveyor had extensive knowledge of the quality and functionality of the different housing archetypes and an in-depth understanding of the local context. Evidence from the HHSRS Operating Guidance was used to guide the discussions. The change in likelihood of harm was identified for the different housing archetypes and for different scenarios where appropriate. This was a difficult task requiring a variety of assumptions and estimates being made. It is important to note that the resulting estimates are not expected to be accurate. They should, however, provide an estimation of the potential magnitude of change that could result for the programme.

The change in likelihoods was then used to calculate the change in numbers of people affected. The spread of harms across the 4 classes was also calculated.

### 14.4. Results

**Excess cold**

This category covers threats to health from sub-optimal indoor temperatures. The HHSRS tends to take a worst case scenario approach to the calculation of likelihoods of harm by applying the likelihood of harm of the most vulnerable group. Likelihoods for excess cold are based on all persons aged 65 years and over (1997-1999). In the baseline situation the number of people suffering harm ranges from 54 - 94. This includes 18-32 class 1 harms. This reduces overall to 6-11 including 2-4 class 1 harms.
<table>
<thead>
<tr>
<th>Dwelling type and age</th>
<th>population</th>
<th>Average likelihood 1 in</th>
<th>lower</th>
<th>upper</th>
<th>number of people suffering harm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Class I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>lower</td>
</tr>
<tr>
<td>Non</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HMO</td>
<td>Pre 1920</td>
<td>689</td>
<td>330</td>
<td>440</td>
<td>247</td>
</tr>
<tr>
<td></td>
<td>1920-45</td>
<td>6849</td>
<td>340</td>
<td>453</td>
<td>255</td>
</tr>
<tr>
<td></td>
<td>1946-79</td>
<td>18255</td>
<td>400</td>
<td>533</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>Post 80</td>
<td>1330</td>
<td>530</td>
<td>707</td>
<td>397</td>
</tr>
<tr>
<td>HMO</td>
<td>Pre 1920</td>
<td>0</td>
<td>340</td>
<td>453</td>
<td>255</td>
</tr>
<tr>
<td></td>
<td>1920-45</td>
<td>9</td>
<td>290</td>
<td>387</td>
<td>217</td>
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<tr>
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<td>1946-79</td>
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<td>370</td>
<td>493</td>
<td>277</td>
</tr>
<tr>
<td></td>
<td>Post 80</td>
<td>0</td>
<td>350</td>
<td>467</td>
<td>262</td>
</tr>
<tr>
<td>Total</td>
<td>27 132</td>
<td></td>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Range</td>
</tr>
</tbody>
</table>
Table 29 Annual reduced likelihood of harm from excess cold

<table>
<thead>
<tr>
<th>Dwelling type and age</th>
<th>population</th>
<th>Average likelihood 1 in</th>
<th>lower</th>
<th>upper</th>
<th>number of people suffering harm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Class I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>lower</td>
</tr>
<tr>
<td>Non-HMO</td>
<td>689</td>
<td>3200</td>
<td>4,267</td>
<td>2,400</td>
<td>0</td>
</tr>
<tr>
<td>Pre 1920</td>
<td>689</td>
<td>3200</td>
<td>4,267</td>
<td>2,400</td>
<td>1</td>
</tr>
<tr>
<td>1920-45</td>
<td>6849</td>
<td>3200</td>
<td>4,267</td>
<td>2,400</td>
<td>1</td>
</tr>
<tr>
<td>1946-79</td>
<td>18255</td>
<td>3200</td>
<td>4,267</td>
<td>2,400</td>
<td>0</td>
</tr>
<tr>
<td>Post 80</td>
<td>1330</td>
<td>3200</td>
<td>4,267</td>
<td>2,400</td>
<td>0</td>
</tr>
<tr>
<td>HMO</td>
<td>0</td>
<td>3200</td>
<td>4,267</td>
<td>2,400</td>
<td>0</td>
</tr>
<tr>
<td>Pre 1920</td>
<td>0</td>
<td>3200</td>
<td>4,267</td>
<td>2,400</td>
<td>0</td>
</tr>
<tr>
<td>1920-45</td>
<td>9</td>
<td>3200</td>
<td>4,267</td>
<td>2,400</td>
<td>0</td>
</tr>
<tr>
<td>1946-79</td>
<td>0</td>
<td>3200</td>
<td>4,267</td>
<td>2,400</td>
<td>0</td>
</tr>
<tr>
<td>Post 80</td>
<td>0</td>
<td>3200</td>
<td>4,267</td>
<td>2,400</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>27 132</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Table 30 Excess cold spread of harm

<table>
<thead>
<tr>
<th>Class I</th>
<th>Class II</th>
<th>Class III</th>
<th>Class IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>6</td>
<td>18</td>
<td>42</td>
</tr>
</tbody>
</table>
Intruders
Entry by intruders covers unauthorised entry by intruders. There is no age group more vulnerable than others for this hazard. The baseline estimate is derived from British Crime Survey for 1999 and 2000 for domestic burglaries. The spread of health outcomes are based on a sample of dwellings from the English House Condition Survey 1996. The health effects are:

- Fear of possible burglary occurrence or reoccurrence;
- The stress and anguish caused by burglary; and
- Injuries caused by occupants by and intruder (aggravated burglary)

In contrast to excess cold there are no class 1 harms expected for this hazard and the vast majority of harm (91%) is expected to be comparatively less severe class 4 harm. In the baseline situation there is expected to be a range of 1038-1846 people experience harm. After improvements are completed this is expected to drop to approximately 379-674.
### Table 31 Entry by intruders baseline

<table>
<thead>
<tr>
<th>Dwelling type and age</th>
<th>population</th>
<th>Average likelihood 1 in</th>
<th>lower range</th>
<th>higher range</th>
<th>number of people suffering harm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Class I lower</td>
</tr>
<tr>
<td>Council all dwellings</td>
<td>7058</td>
<td>8</td>
<td>11</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>27 132</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Range</td>
</tr>
</tbody>
</table>

### Table 32 Annual reduced likelihood of harm from entry by intruders

<table>
<thead>
<tr>
<th>Dwelling type and age</th>
<th>population</th>
<th>Average likelihood 1 in</th>
<th>lower range</th>
<th>higher range</th>
<th>number of people suffering harm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Class I lower</td>
</tr>
<tr>
<td>Council all dwellings</td>
<td>7058</td>
<td>25</td>
<td>33</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>27 132</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Range</td>
</tr>
</tbody>
</table>

### Table 33 Entry by intruder spread of health outcomes

<table>
<thead>
<tr>
<th>Class</th>
<th>Class II</th>
<th>Class III</th>
<th>Class IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>9</td>
<td>91</td>
</tr>
</tbody>
</table>
14.5. Conclusions and limitations

One of the reasons for carrying out modelling in health impact assessment is to provide a basis point for discussions in the impact analysis process. By making the assumptions made in the calculations explicit, they become open to challenge providing a starting point for discussing health impacts. The results of this pilot exercise have informed the impact analysis and recommendations. However, there were limitations to the modelling carried out:

- It is assumed that the evidence, methods and models used in the HHSRS are accurate and of good quality.
- A number of estimates, used in combination, are required throughout the process – thereby reducing the validity and reliability of the results.
- The numbers calculated provide an estimation of the impact of hazard reduction on health outcomes. The actual number of people experiencing these health outcomes may be different from what we have estimated.
- The absence of complete HHSRS data (i.e. the absence of property/area specific data for all 4 classes of harm, I – IV) prevents dwelling specific, accurate and reliable quantification of health impacts in relation to the hazards.
- Estimations are provided for a limited range of health outcomes which are identified within the HHSRS. There may be other health impacts, in particular impacts on mental wellbeing that have not been taken into account.
- Research indicates that some population sub groups are more susceptible to certain hazards and related health impacts. In the current model for some hazards likelihoods of harm for the most vulnerable population group have been applied so that a ‘worst case scenario’ has been estimated. It is also likely that for a range of hazards some population sub groups will be more susceptible to impacts. HHSRS defines vulnerable groups on age ranges ignoring more significant groupings based on health or other criteria. The modelling carried out has not taken these differences into account. This may have implications for differential impacts and impacts on health inequalities.
- Further refinement of the baseline could be achieved by conducting a series of sample HHSRS surveys (for the hazards being considered) and seeing how this compares to the national HHSRS averages for the dwelling archetypes. This is beyond the scope of the current project.
15. City West HIA Action Learning Sets

15.1. Introduction
As part of the Health Impact Assessment of the City West Home Improvement Programme (HIP), a series of five professional development sessions for staff was planned to acquaint them with HIA methods, procedures and tools so that they might apply their learning and gain from their active involvement in the HIA.

These sessions were constituted as an action learning set (ALS) the aim of which was to offer individual professional skills development to staff, so that they might better engage in seamless implementation of the recommendations of the comprehensive HIA, having actively contributed to it.

The progressive sessions followed the principles of action learning, their timing and content mapped across to the stages of the HIA in progress, therefore running in parallel. Membership of the action learning set, in this case a maximum 15 staff (more usually seven people), required commitment to attending all of the sessions, as sanctioned by the Chair of the HIA Steering Group.

15.2. Action Learning
Action learning is a continuous process of learning and reflection that happens with the support of a group or “set” of colleagues working with real problems with the aim of getting things done. In this instance, the approach was used to learn about Health Impact Assessment, based upon the HIA of the City West Home Improvement Programme.

The cycle of action learning includes:
- Reflection – the set considers their experiences, then moves forward.
- Making sense, or theorising – in this instance, learning how their experiences have contributed to the HIA so far and what the next steps will be.
- Planning action – identifying with the set what their next actions might be in the HIA
- Experience – making actions happen!

This may be summarised as sharing experiences and issues within the group as they go step by step through the HIA process, finding out how to participate fully in each step and getting things done, so the HIA is the best possible piece of work it can be, for the ultimate benefit of the City West customers and their families and City West.

There is evidence that action learning sets provide a supportive environment in which to explore, adopt and evaluate new practices, with individuals reporting a greater sense of empowerment, with professional and personal skills developed or enhanced. An example is that practitioners often feel better equipped to think through problems and manage change, rather than merely reacting to problems.

15.3. Action Learning Set - approach
A group of people - in this case, a maximum of 15, but more usually seven - who met regularly with experienced facilitators (from IMPACT). For this comprehensive HIA, there were five sessions, of approximately three hours each. At each meeting, the facilitators
invited members to briefly report on their activity relative to the HIA process, provided information on HIA methods, tools and procedures, raised matters for further structured group discussion and resolution in order to enhance their understanding of HIA and assist them in contributing to the next steps in the process.

The facilitator’s role is to enable the group to reflect in a safe environment, where they can explore potentially sensitive issues, highlight the relationship with HIA methods, ensure that the group follows action learning set conventions and draws out general lessons for individual development.

The draft programme for the action learning set was designed to align to the methodological steps. The first set meeting set the background; it focussed on what HIA is, how the ALS would work in relation to the Steering Group and explained how the following sessions would reflect on the experience gained and plan forward the action needed for the following stages, so members were equipped to contribute to subsequent steps in the process.

**Action Learning Set – Draft Programme Content**

**Set 1.**
- Welcome / Introductions
- Setting the context:
  - City West Home Improvement Programme HIA
  - Action Learning Sets – what are they and how will this one work?
  - Programme for this session
  - What is Health Impact Assessment (HIA)?
  - An introduction to a generic HIA methodology
  - Overview of the Home Improvement Programme
- What is the role of a Steering Group?
- What is meant by “Scoping” and how is it recorded?
- Summary and close

**Set 2.**
- Reflections from the previous session and progress so far
- Profiling: what it is, sources of information and how you can help develop it for the HIA
- Policy Analysis:
  - setting the policy context
  - identifying policies for collection and analysis
  - thinking about health
  - setting criteria for the analysis
- Looking towards evidence and data collection:
  - Sources of appropriate evidence from the literature
  - Qualitative and Quantitative data
- Summary and close

**Set 3.**
- Reflections from the previous session
• Review of activity on Profiling and Policy Analysis
• Qualitative data collection:
• Stakeholders and key informants
• Questions to ask stakeholders
• Further reflections on evidence from the literature
• Summary and close

Set 4.
• Resume of previous sets
• Where are we now in the HIA process?
• Impact Analysis:
• What is it and what tools can be used to do it?
• Consider early impacts using a selected tool
• Prioritising impacts and achieving consensus
• Consensus methods e.g., Delphi exercises
• Developing recommendations
• Summary and close

Set 5.
• HIA Report: producing a quality report
• Understanding peer review
• Monitoring and Evaluation:
• Lessons learned
• How recommendations are taken forward
• Accountability for sustainability
• Summary and close

15.4. What Happened
The first ALS meeting took place on 19th August 2009, immediately prior to the first meeting of the Steering Group. The second meeting was held on 15th September and the third on 8th October. The fourth meeting was held on 21st December, 2009, immediately prior to the second Steering Group meeting (to which early findings were presented). The final meeting was held on 5th March, 2010.

13 people attended the first meeting, from a list of 18 nominated members. 8 attended the second session; 10 the third; 6 the fourth (with four apologies due to snow); 10 attended the final meeting.

From the outset, it was clear that there was high level commitment and significant and crucial management leadership that ensured attendance at the meetings, despite some variation in numbers.

Each of the first two sessions where highly participative, with “issues” being raised from the outset, from the point of view of both the City West staff and customers. This reflected a high level of understanding on the part of the ALS members of their customers experience and views and a substantial detailed understanding of the City West policy portfolio.
From the first session, for example, refusal to allow refurbishment and the judicial process used to enforce this was raised; the example cited being that of a family with a disabled resident who appeared to have been recommended not to accept on the grounds that the refurbishment process itself would affect the recipients’ health. A further example was described as “mental – the spiritual and cultural aspects of families were not always most sensitively considered”.

It was noted at the first session that while new customers were asked for the record about existing health problems, those who had transferred across from Salford City Council were not – a potential data quality issue.

There was at this stage, a fairly new appointee charged with developing a programme of activity as part of a Community Change Plan.

From the second session relating to profiling and policy analysis, it became clear that data quality and integration of systems regarding tenant attributes and health was at an early stage following transfer, that might in turn constrain a more sensitive understanding of the distribution of impacts in each of the four main areas. Asset management data and information seemed to be rather more complete and accessible.

A very full description of the City West policy portfolio, acknowledged to be difficult to access externally, brought into sharp contrast the rather minimal understanding and relationship with City of Salford policies, housing and other, such as transport. There was a variable understanding of the wider local policy context among the members of the ALS, probably reflecting the range of operational and managerial staff, although it was clear that City West was keen to engage and continued to seek to strengthen the relationship. An interesting anomaly regarding “transport planning/access” was that while City West owns the land underneath the roads, they do not own the tarmac on top, presenting interesting challenges in how City West and partners might best address access and maintenance issues on behalf of their customers.

The ALS identified that there was probably a stronger relationship and understanding of national policy than local due to the regulatory nature of the interface between Registered Social Landlords (RSLs) and the Homes and Communities Agency (HCA). This did not preclude a most useful contribution being made to the Policy Analysis section of the HIA.

The balance of the maturity of the relationship between an RSL and the HCA (and indeed the Tenants Services Authority - TSA) as organisations has been recognised as relevant by stakeholders in other similar HIAs. In this instance, City West, the HCA and TSA were about twelve months old. Elsewhere, longstanding established housing associations that became RSLs may have brought to the relationship what could arguably be described as a more tenant-focussed, than asset-based, ethos. Given that the inception of City West and asset transfer occurred in close proximity to the credit crash and subsequent recession, affecting their anticipated programme of delivery from the outset, this is hardly surprising.

At their third meeting, the ALS was able to reflect on the apparent “weak local policy link”, speculating that it might contribute to less than optimal performance by City West, potential legal challenges and a possible reciprocal “weakness” in coherence with local equality and health policies. The group wished to make a firm recommendation that the local policy link
should be strengthened and shown to be explicit, along with a far greater degree of transparency for customers and the wider public.

There was a growing appreciation of how a more thorough understanding of the intelligence on tenant attributes could assist the profile of City West in helping to achieve performance targets in Salford. For example, from profiling it seemed likely that City West may have an over representation of smokers among their tenant population and could provide support into cessation services for customers. The group recognised that 60% of customers describe themselves as disabled (although the validity of this requires further scrutiny since it is self reported and presumably from new, not existing customers) and could see how the developing community programme might smooth access to appropriate support for customers should the local links be made somewhat stronger.

Inviting the ALS to consider the nature of evidence for their delivery programmes lead to an insightful discussion, initially suggesting that external research (such as “the Cambridge people”), interrogation of their own surveys and data and the central policy documentation provided the sufficient evidence for the work of City West.

Several of the members, once prompted, clearly recalled aspects of both qualitative and quantitative research methodologies from their undergraduate and professional training experience, but were not required to utilise these skills or employ them explicitly in their role in City West. They felt that a clearer understanding of the evidence base and how their activities potentially contributed to health gain and reduction in health inequalities would bring not only greater job satisfaction and assist in improving performance, but most importantly improve the health and wellbeing of customers.

The ALS considered the nature of questions they might wish to ask stakeholders in the planned workshops. Suggestions reflected how important it was to staff to better understand “people” aspects, for example, why people refuse improvements that as far as they are concerned can do nothing other than improve their health by improving their living conditions, especially since the City West Standard exceeded the national Decent Homes Standard and also why “fencing” matters so much.

The nature of the questions proposed was also rather closed and potentially leading. The group discussed how this might bias or affect the nature of the stakeholder evidence gathered and learned how open and systematic HIA approaches could assist this, improving the quality of their intelligence.

The members of the set were invited to assist in the planned stakeholder workshops.

The set remained positively engaged during the meetings, but it was gradually becoming clear that despite the excellent degree of support within City West, members were unable to act or reflect upon the lessons learned in the meetings due to the pressures of their day to day roles.

As the work progressed, once beyond the profiling and policy analysis stages, the format of the meetings became rather less participative than had originally been anticipated, with less actual contribution to the HIA itself. “Reflecting on their activity” since the previous meeting tended to be a reminder of what had been discussed last time. The reality was that some
members felt some discomfort in this phase of a meeting and discussions became related to the next stages of HIA as a methodology, rather than active participation in the HIA itself. Future actions were always proposed and taken away with enthusiasm and good intentions, but the reality was that both the group and facilitators came to a tacit understanding that they were less likely to bring concrete action to reflect on.

The planned programme of stakeholder workshops was modified in light of take-up and this is discussed elsewhere in the report. It was unfortunate that there was insufficient stakeholder evidence for the ALS to consider in the fourth meeting.

Attendance at the fourth ALS meeting (held prior to an interim Steering Group meeting discussing initial findings) was affected by heavy snow leading to several apologies, not least because this had brought an increased workload from tenant enquiries. It was also Christmas week. Those present did enjoy a vibrant discussion reflecting on the nature of evidence and how in HIA this is triangulated. A hierarchy of evidence for HIA was considered, impact analysis discussed and the group undertook tasks that lead to the framing of “sample” recommendations.

The final ALS used critical appraisal methods to reflect upon how best they might assure the quality of a HIA. The important contribution of peer review to quality assurance was discussed. There was a considerable emphasis on taking forward monitoring and implementation of the recommendations of the HIA.

Since many ALS members were likely to be charged with taking forward the recommendations of the HIA, there was a reinvigorated interest, not least because this was anticipated as becoming subject to individual performance monitoring.

15.5. Summary
There was a clear managerial commitment throughout the ALS to gaining new HIA skills and knowledge, the intention to embed this into City West practice being explicit. This was an integral part of the scope of the HIA, to which end the objective was achieved.

The members of the ALS showed consistent interest and worked with good humour, contributing to each of the meetings as fully as was possible. It was unfortunate that there were modifications to the scope of the HIA in terms of the planned stakeholder workshops that would have brought a greater degree of active participation for the ALS.

Members of the ALS seemed to possess considerable problem solving skills from their working at the interface with customers, likely to be improved with a broader understanding of the wider determinants of health gained through the ALS. The HIA itself can contribute indirectly to programme sustainability, but it was disappointing to learn that by the end of the ALS, the Community Programme lead had moved on from City West, with some uncertainty as to how that development would be sustained.

To demonstrate true capacity building with in City West, it will be important that the high level commitment is translated into an appropriate infrastructure, enabling staff to operationalise their learning from the ALS and for future “added value” in the implementation of recommendations.
16. Impact analysis

This section brings together (triangulates) the evidence from all the data collected from the different sources and by using different (multiple) methods. It identifies and characterises the potential impacts of the strategy describing where possible:

- **Health impacts** – the health determinants affected and the subsequent effect on health outcomes.
- **Direction of change** – health gain (+) or health loss (-).
- **Scale** – the severity (mortality, morbidity and wellbeing) and magnitude, where possible (size/proportion of the population affected).
- **Likelihood of impact** – definite, probable, possible or speculative based on the strength of the evidence and the number of sources.
- **Latency** – when the impact may occur.

For the purpose of impact analysis, a hierarchy of evidence from level I to VI has been defined (based on Haigh et al., 2008) describing the relative strength of evidence for a causal relationship between health determinants and health outcomes; this includes evidence from the literature, key informants and stakeholders. Stakeholders provide a different type of evidence based on, e.g., their knowledge, experience and perceptions; this evidence provides a more detailed picture of the potential range of health determinants affected by the strategy as well as an insight into how this may affect health outcomes and who may be affected most or least. Finally it helps in the prioritisation of impacts.

<table>
<thead>
<tr>
<th>Level I</th>
<th>Reviews of (systematic) reviews or meta analyses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level II</td>
<td>Systematic reviews; reviews of several HIAs</td>
</tr>
<tr>
<td>Level III</td>
<td>Single literature reviews or HIAs</td>
</tr>
<tr>
<td>Level IV</td>
<td>Single studies</td>
</tr>
<tr>
<td>Level V</td>
<td>Expert witnesses (key informants)</td>
</tr>
<tr>
<td>Level VI</td>
<td>Stakeholders</td>
</tr>
</tbody>
</table>

Where evidence collected from multiple research methods converges, this adds extra strength to the evidence and the likelihood of impact. Definition of the likelihood of the impacts is described in the following qualitative terms. The likelihood of the impact is based on the assessed strength of evidence. It should be noted that lower levels of evidence (speculative) are still relevant and may be valid; this evidence should not be ignored.

<table>
<thead>
<tr>
<th>Definite</th>
<th>Will happen. Overwhelming strong evidence from a range of data sources collected using different methods (level I)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probable</td>
<td>Very likely to happen. Direct strong evidence from a range of data sources collected using different methods (levels II/III)</td>
</tr>
<tr>
<td>Possible</td>
<td>More likely to happen than not. Direct evidence but from limited sources (level IV/V)</td>
</tr>
<tr>
<td>Speculative</td>
<td>May or may not happen. No direct epidemiological evidence to support (level VI)</td>
</tr>
</tbody>
</table>
16.1. Health impacts – by stages

Impacts may occur at four stages. These stages, together with examples of key potential impacts, are outlined below:

Prior to commencement of works – while City West customers are waiting for the works to begin they may be informed about the work that is to be undertaken and they may be consulted about options regarding the design of certain aspects of the work, for example, they may be given a choice of fixtures and fittings. Customers will develop expectations about the delivery of works and their involvement in decision making or experience of delays that may impact on their health. During this stage some customers may be relocated to, either temporary or permanent, alternative accommodation depending on the nature and duration of the works and the availability of alternative accommodation. This process, the loss of community support networks and the condition of their destination accommodation/neighborhood may have an impact on their health. Stakeholders in this and similar studies have identified the importance of good information and involvement in decision making.

During the works – this will be a period of disruption for City West customers that will expose them to, potentially repeated, periods of exposure to hazards such as noise, light and air pollution. Disruptions may occur that affect all or specific groups such as, for example, sleep disturbances for shift workers and disturbances to students trying to revise for exams or complete homework. Vulnerable customers (including people with physical, mental, learning or organisational difficulties, elderly people, the unemployed and parents with pre-school age children) are likely to suffer a greater degree of negative impacts while work is being carried out.

There are two possible approaches to carrying out the works: the phased approach that is being adopted on most of City West’s estates, and a single phase approach, where all works are carried out together (e.g. whole house refurbishments). The first approach produces many small disruptions and repeated uncertainty. The second approach produces a single major disruption and requires decanting to alternative accommodation while work is being carried out. Decanting is particularly stressful for the elderly, the infirm and adolescents. Each approach is likely to have different health impacts. Knowledge of resident vulnerabilities provides is needed to control impacts.

Early post-works – once the work is complete there may be an improved sense of wellbeing, reduced exposure to home hazards and increased ability to heat homes with positive short-term and long-term health impacts, for example, reductions in excess winter morbidity and mortality levels. Poorly managed expectations and issues over the quality of work and fault finding/snagging may have negative health impacts. Indoor air pollutants, for example, from sealants and materials used in new kitchens, bathrooms and glazing, may impact on the health of vulnerable people (people with existing respiratory conditions) in the short-term.

Late post-works – Key health determinants, for example, home security, home hazards and ability to heat homes, will be improved and may lead to a range of potential positive health impacts. However, if improvements are not maintained the long-term benefits of the improvements may be reduced. Increases in the cost of living, including rents and fuel costs,
may reduce or eliminate the economic benefits of the improvement works. Over time the improved wellbeing associated with completion of the works may wear off. If general environmental improvements (improvements to public, shared and green spaces) have not yet been made some health determinants will remain unchanged. Customers who gained access to employment and training through the programme may sustain benefits into the long-term if employment opportunities are maintained. If general social and economic conditions (e.g. anti-social behaviour, access to facilities, education, training or employment) remain the same for the majority of customers these health determinants will not change.

16.2. Health impacts - by category of intervention
The housing and neighbourhood improvement programme interventions are categorised in Table 34, together with examples of specific interventions. They are not discrete categories and there is some overlap. These categories are used in the following analysis. The analysis by category of intervention should be viewed in conjunction with the above information on the health impacts by stages.

Table 34 Categories and examples of interventions

<table>
<thead>
<tr>
<th>Category of intervention</th>
<th>Examples of interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable warmth interventions</td>
<td>Thermal insulation (cavity wall, loft, external cladding)</td>
</tr>
<tr>
<td></td>
<td>Double glazing</td>
</tr>
<tr>
<td></td>
<td>Providing external doors</td>
</tr>
<tr>
<td></td>
<td>Energy efficiency/affordable warmth training</td>
</tr>
<tr>
<td></td>
<td>Providing central heating systems</td>
</tr>
<tr>
<td></td>
<td>Ventilation systems</td>
</tr>
<tr>
<td>Interventions to reduce home hazards and improve provision of amenities</td>
<td>Smoke and carbon monoxide detectors</td>
</tr>
<tr>
<td></td>
<td>Modernising kitchens</td>
</tr>
<tr>
<td></td>
<td>Modernising bathrooms</td>
</tr>
<tr>
<td></td>
<td>Rewires and electrical upgrades</td>
</tr>
<tr>
<td>Security improvement interventions</td>
<td>Providing external doors with secure locks</td>
</tr>
<tr>
<td></td>
<td>Double glazing with secure window locks</td>
</tr>
<tr>
<td></td>
<td>Providing external lighting to homes</td>
</tr>
<tr>
<td></td>
<td>Better security and lighting for blocks of flats</td>
</tr>
<tr>
<td></td>
<td>Providing more off-road parking facilities</td>
</tr>
<tr>
<td>Improvements to general physical environment</td>
<td>Providing environmental improvements</td>
</tr>
<tr>
<td></td>
<td>Improve and maintain 'unadopted' roads</td>
</tr>
<tr>
<td></td>
<td>Providing more off-road parking facilities</td>
</tr>
<tr>
<td></td>
<td>Providing play areas for children and young people</td>
</tr>
<tr>
<td></td>
<td>External improvements to blocks of flats</td>
</tr>
<tr>
<td>Aids and adaptations for the disabled</td>
<td>Providing better funded and more efficient aids to disabled people</td>
</tr>
<tr>
<td>Structural work/maintenance</td>
<td>Re-roofing</td>
</tr>
<tr>
<td>Whole house and high-rise refurbishments</td>
<td>Includes windows, doors, roofing and internal works</td>
</tr>
</tbody>
</table>

The implementation of these interventions is determined by the existing condition of the properties and the availability of resources. The majority of health impacts will only affect people in properties who receive the interventions, with some exceptions such as the impacts from improvements to the general physical environment or impacts from the process of delivery/disruption.
Affordable warmth interventions

There is strong evidence from the literature that periods of excess cold lead to excess levels of winter morbidity and mortality, and that affordable warmth interventions have potential to reduce the negative health effects of poor housing. There is evidence from stakeholders and key informants that the programme will help to provide affordable warmth to homes at two broad levels, as follows:

- **Level 1** – basic thermal efficiency intervention. All homes will receive a basic level of intervention dependant on the existing condition of the properties. This includes a combination of loft insulation, cavity wall insulation (where practicable) and/or external cladding (where appropriate and in the absence of cavity wall insulation). All residents will be offered practical information and training on how they can heat their homes more effectively/affordably.

- **Level 2** – extended thermal efficiency intervention/s. A large number of homes will receive additional interventions that will have an impact on insulation/affordable warmth. Depending on the age and existing condition of the property this may include new external doors, double glazed windows, new heating and new ventilation systems.

A large percentage (58% in the City West Status Survey of 2009) of City West customers reported that they have chronic health conditions or disabilities. Evidence from community profiling and the literature confirms that the prevalence rates of chronic medical conditions are particularly high amongst tenants of social housing. Some of these conditions are linked to exposures to cold, damp, mould and allergens within the home environment. There is strong evidence that improvements to insulation and heating systems will reduce or eliminate these exposures.

It is **probable that the affordable warmth interventions** (levels 1 and 2 above) **will have a positive impact on health and wellbeing** including a reduction in symptoms and morbidity levels for the chronically ill, a reduction in rates of acute illness and levels of excess winter morbidity and mortality. The extended interventions (level 2 above) will have the greatest positive impact. The magnitude of impacts will be determined by the existing condition of the property, the relative vulnerability of the recipients/customers and the specific nature of the interventions on a property by property basis. Children and people with chronic health conditions such as respiratory illness are likely to be the greatest beneficiaries of these interventions. Other vulnerable groups include older people, the disabled and people who spend the majority of their time in the home environment. The impacts are likely to be long-term (early and late post-works).

Evidence from key informants shows that the materials and techniques used in the affordable warmth interventions have changed over time. These changes may be based on evidence of the efficacy of new materials/techniques or other reasons, such as cost or the availability of appropriate materials/contractors. This is likely to result in an unequal distribution of impacts.

The implementation of extended (level 2) affordable warmth interventions is currently determined by a threshold level based on a properties SAP score (Standard Assessment Procedure, the government’s system for energy efficiency rating of dwellings). Properties with a SAP score below the threshold receive extended (level 2) improvement works. This
approach targets resources to properties most in need of improvements - those properties with inherently poor thermal efficiency; their occupants have the most to gain. Customers in properties just above the threshold (who only receive the basic intervention package) will become, after the improvement works, those with the lowest SAP score. This group (starting with the lowest above SAP threshold rating) will receive the least benefit from the affordable warmth interventions. We presume that future affordable warmth interventions will be targeted at this group.

The targeting/prioritisation of affordable warmth interventions is not designed to take into account the relative vulnerabilities of City West customers, only the energy efficiency rating of their property. Stakeholders identified that priority should be given to the elderly when implementing affordable warmth interventions and that people, particularly vulnerable people such as the elderly, should not be left without heating during periods of bad weather/winter months. Prioritisation of affordable warmth interventions to vulnerable groups such as the elderly may maximise positive health impacts.

**Interventions to reduce home hazards and improve provision of amenities**

By May 2010 City West contractors had installed over 1300 new kitchens, over 1000 new bathrooms and over 2000 re-wires and electrical upgrades. These improvements are designed to reduce injuries and provide safer storage of household chemicals. They are long-term improvements (depending on maintenance) and should lead to long-term reductions in home hazards and risk of injury and poisoning. **It is probable that these interventions will have a positive impact on health and wellbeing.** The impacts are likely to be long-term (early and late post-works). Children and the elderly (those most likely to be poisoned/injured in the home) are likely to be the greatest beneficiaries of these interventions.

There is strong evidence from the literature that safety devices such as fire alarms and CO\textsuperscript{2} detectors reduce the risk of injury and poisoning/suffocation. **It is probable that the introduction of smoke and CO\textsuperscript{2} detectors will have positive impacts on health and wellbeing.** If the devices are well maintained the impacts are likely to be long-term (early and late post-work).

**Security improvement interventions**

City West are providing a range of improvements that will increase home security including replacement doors/locks, replacement windows/locks and external lighting. Evidence from the literature, including other HIAs, shows that improvements to home security reduce the fear and incidence/experience of crime.

There is very strong (definite) evidence that crime poses substantial risks to the health of victims and perpetrators. There is evidence that the fear of crime can lead to poorer mental and physical health and decreased social participation. **It is probable that interventions to improve home security will have positive impacts on health and wellbeing.** Good maintenance of the improvements, together with good maintenance of the general physical environment, will help to sustain these benefits into the long-term. With good maintenance, the impacts are likely to be long-term (early and late post-works). In terms of fear of crime children, women, people with mental illness and the elderly are likely to be the greatest
beneficiaries. In terms of the experience of crime young men are likely to be the greatest beneficiaries.

**Improvements to the general physical environment**

The general physical environment includes the built environment and green spaces that are outside the home and shared and communal spaces within properties. In the context of the improvement programme this includes:

- Public spaces.
- Roads, paths and pavements.
- Public parks.
- Formal and informal greenspaces such as sports playing fields and areas of woodland/grassland.
- Gardens (public and private).
- Allotments.
- Entranceways, corridors, lifts and hallways.

Housing and neighbourhood improvement programmes impact on aspects of the general physical environment, for example, through improvements to external hard standings, garden fencing, the provision of new doors, windows and changes to the nature, condition and availability of shared, communal and public spaces. City West are committed to a range of improvements to the general physical environment (see Table 34 for more information).

There is a growing body of evidence in the literature on the relationships between the general physical environment (the built environment, private, shared and open spaces including green spaces) and the prevalence of chronic health conditions such as those relating to physical activity and body weight/obesity (e.g. Cardio vascular disease, type 2 diabetes and musculoskeletal disorders. Depending on timing of implementation and confounding factors (e.g. rising crime levels resulting from external factors), it is possible that interventions to improve the quality and maintenance of the general physical environment will increase levels of physical activity and reduce levels of associated chronic illness with positive impacts on health and wellbeing. Children and people who are at greatest risk of developing chronic illnesses (some groups/individuals are inherently more likely to develop certain conditions such as type 2 diabetes – e.g. certain BME groups and those with family history) and people with existing chronic conditions are likely to be the greatest beneficiaries.

The timing, duration and magnitude of health impacts will be determined by the timing of implementation (positive impacts will be maximised by early introduction alongside the internal improvement works), the nature and quality of the interventions (opportunities for people to grow things are likely to have greater positive impacts than the less active uses of greenspace), the inclusivity of access to new areas/facilities (e.g. can elderly and disabled people access them?) and the long-term maintenance of improvements. Poorly maintained general physical environments may have negative impacts on health and wellbeing, for example, reduced use/physical activity as a result of raised levels of fear of crime or increased physical injuries.

There is evidence that well designed and maintained physical environments reduce the perception/fear of crime and the prevalence of crime. Health impacts can be physical,
psychological and social. **It is possible that improvements to the general physical environment, if well maintained, will have positive impacts on health and wellbeing.** In terms of fear of crime children, women, people with mental illness and the elderly are likely to be the greatest beneficiaries of these interventions. In terms of the experience of crime young men are likely to be the greatest beneficiaries.

There is some evidence that improvements to the general physical environment will help to enhance community pride and identity. **We can speculate that this will positively impact on health and wellbeing.**

Improvements to the general physical environment, together with the introduction of more efficient heating/insulation systems to homes, may also have positive impacts on greenhouse gas emissions and climate change.

**Aids and adaptations for the disabled**

There is evidence from stakeholders and key informants that the improvement programme has brought forward home adaptations for some disabled people. City West is committed to ‘providing better funded and more efficient aids to disabled people’. There is evidence from the literature that well-designed adaptations have beneficial, and/or preventative effects on physical (and mental) health. The benefits are long-term and extended beyond the disabled person to the health of other family members. **The early implementation of well-designed adaptations to the home will probably have positive impacts on health and wellbeing for disabled recipients, carers and other family members.**

**Structural work/maintenance**

Ensuring the structural safety of buildings, thereby removing or reducing hazards will **probably have a positive impact on health and wellbeing.**

Re-roofing may contribute to improvements to the general physical environment (please see above).

There was some evidence from stakeholders that standards of work and responses to requests for repairs/maintenance have improved since transfer to City West. **We can speculate that these improvements may have a positive impact on health and wellbeing.**

**Whole house and high-rise refurbishments**

Whole house and high-rise refurbishments involve a package of interventions that are addressed throughout this report, for example, new kitchens, new bathrooms, new heating systems, electrical rewiring, new double glazing, improvements to home insulation and environmental improvements. The potential health impacts of these interventions are identified elsewhere in this report. However, the process of delivery and the experience of customers in properties designated for whole house and high-rise refurbishments are different to other customers and have potentially significant implications to health and wellbeing.

Whole house and high-rise refurbishments typically involve the relocation of existing residents during the period of improvements. Relocation can either be temporary, while homes are refurbished, or permanent. Relocation may be voluntary or compulsory. There is
evidence from the literature, including HIAs, that there are four categories of potential health impacts: relocation, displacement, household income and neighbourhood sustainability as summarised below.

Relocation

- Moving house is a health damaging event.
- Forced relocation has the greatest negative health impacts.
- Control/lack of control is a key health determinant, particularly in terms of stress related illness.
- A relocation process that includes, inter alia, good communication and support mechanisms can reduce negative health effects.
- Living conditions may deteriorate when there is a change in residents’ priority rights in the housing market as a result of relocation.
- Shift in status from a forced to a voluntary mover may reduce negative health effects.

Displacement

- Displacement of existing communities affects the population dynamics of a neighbourhood, with an associated breakdown of social networks and systems/loss of community cohesion.
- Social networks and systems are key determinants for psychosocial wellbeing, and physical health in the longer term.
- Evidence suggests that as an area regenerates and new people move into an area, neighbourhood prosperity and human capital increases but social capital is not restored.

Impacts on other geographical areas/populations may result from relocation, for example, the concentration of deprivation in destination areas and reduced social cohesion.

Household income

- Impacts on diet and health resulting from a decrease in available household income as a result of higher rents/mortgages.

Neighbourhood sustainability

- Comprehensive area-based approaches help to protect neighbourhood sustainability, preventing a potential decline in the area during clearance (note: the potential for delayed or prolonged improvement work to lead to area decline), both in terms of the physical and social environment.
- Without this multifaceted approach there is a risk of additional outward migration and further degradation of the area, preventing the regeneration of the area.
- Effects on the population dynamics of a neighbourhood, with an associated breakdown of social networks and systems, key determinants for psychosocial wellbeing, and physical health in the longer-term.

It is probable that there will be negative impacts on the health and wellbeing of customers who are relocated. Negative impacts may also be experienced by their family and friends/social networks. Vulnerable customers, such as the elderly, adolescents, people with learning, organisational or mental health issues may experience greater negative health impacts. Customers who are forced to relocated, or feel they have little or no control of the
process, may experience greater negative impacts. Customers who are permanently relocated may experience greater negative impacts and potentially miss the benefits of improvements. Good communication and support mechanisms can reduce negative health effects. Support that is tailored to the needs of individuals/vulnerable groups can reduce negative impacts.

We can speculate that there may be negative impacts on the health and wellbeing of communities in destination areas.

16.3. Other potential impacts

The process of implementation/construction
Strong evidence from the literature indicates that negative impacts of home improvement programmes commonly occur during the implementation/construction process. Management of these impacts can be controlled by the processes of community engagement and communication with customers, involvement in decision making and by the policies, processes and behaviour of contractors and sub contractors.

There is evidence from stakeholders and the literature, including other HIAs, that concerns/stress prior to the commencement of work have a negative impact on health and wellbeing. The impacts of stress are independent of any concerns being realised. It is possible that stress prior to the commencement of works will have a negative impact on health, albeit relatively short-term.

It is probable that disruption during the implementation/construction phase will have a negative impact on health and wellbeing.

The severity of impact will vary across different population groups/individuals. Vulnerable groups, for example, the elderly, disabled and people with learning, organisational and mental health issues are likely to experience more severe impacts. Good communication, effective community engagement and involvement in decision making are likely to reduce negative impacts on health and wellbeing.

Community pride and identity
There is evidence from stakeholders that the housing improvement works will have a positive impact on community pride and identity. It is possible that this will have a positive impact on health and wellbeing. Good communication, high standards of work, good maintenance and high levels of community engagement/involvement in decision making will maximise positive impacts.

There is evidence from the literature, including other HIAs, that improvements to the general physical environment have a positive impact on community pride and identity. There is evidence that increased pride and community identity have a positive impact on health and wellbeing. It is possible that this will have a positive impact on health and wellbeing.

The early implementation of improvements to the general physical environment alongside home improvements, high levels of maintenance and high levels of community engagement/involvement in decision making will maximise positive impacts.
Climate change (excess summer heat)
There is evidence from the literature, including other HIAs, that climate change is likely to have an increased impact on health and wellbeing over time. Impacts may result from increased periods/severity of excess summer heat (and excess winter cold). Potential negative impacts increase with age, particularly over the age of 75. Key informants were unable to identify if the improvements were designed to manage excess summer heat. However, stakeholders and key informants did identify (affordable warmth) interventions that help to keep homes cool in the summer as well as warm in the winter (e.g. cavity wall insulation) and thereby reduce the exposure of customers to excess summer heat. **We can speculate that the improvements may mitigate the increasing negative health impacts of excess summer heat associated with climate change.** Mitigation of impacts can be increased through an explicit, multifaceted approach to managing excess summer heat; further information can be found within the recommendations sections.

Indoor air quality
There is evidence from an earlier HIA that although contractors use low emission paints there are still potential health issues relating to the use of other building materials such as sealants and solvents. **We can speculate that this may have a negative impact on the health of vulnerable groups such as those with existing respiratory illnesses, albeit short-term.**

Future developments
Detailed plans to invest in some local shops/facilities are currently in development; they were not available at the time of writing. However, based on the evidence from other HIAs, the literature and stakeholders we can speculate that improvements to the availability and condition of local shops/facilities will have positive impacts on health.
17. Recommendations

17.1. Introduction
The literature review, interviews, workshops, telephone survey and analysis lead to a set of recommendations designed to maximise positive, and reduce or eliminate negative health impacts associated with the improvement programme. These recommendations are summarised below. The recommendations will require debate and agreement by the City West Board before incorporation into an implementation management plan.

17.2. Interventions to reduce home hazards and improve provision of amenities

- Remove/repair trip and fall hazards in the homes of older people. Prioritise people with a history of falling and men aged 75 years and over.
- Remove/repair trip and fall hazards in the homes of people with young children.
- Consider removing home hazards, such as trip hazards, from the homes of other vulnerable groups, such as those with chronic illness or disability.
- Consider providing safety devices, such as smoke and CO$_2$ detectors, to all homes where there are open flued appliances.
- Consider providing safety devices, such as window egress bars and restrictors, to vulnerable groups/individuals, e.g. families with children living in high-rise accommodation.
- Consider adopting a systematic, evidenced based approach to the identification and removal of home hazards. Investigate the plausibility of fully implementing the HHSRS assessment procedure including the identification of implementation of remedial actions identified by a full HHSRS survey. Full implementation involves the identification of category I to IV hazards and not just category I hazards. Investigate streamlined, context specific approaches to the use of the HHSRS.
- Consider a more detailed/robust second stage HIA quantification process based on a more complete HHSRS process to demonstrate to the benefits of further interventions to remove home hazards.

17.3. Affordable warmth interventions

- Consider prioritising the implementation of affordable warmth interventions to vulnerable groups such as the elderly.
- Consider extending the range of interventions for vulnerable groups.
- Take into consideration the vulnerabilities of customers when planning the timing of implementation (e.g. don’t leave elderly people without heating during cold periods and avoid working in homes with students during revision/exam periods).
- Ensure consistent use of high quality insulation and other materials based on the best available evidence.
- Consider providing additional air vents in the homes of smokers.
- Consider noise issues relating to external vents.
- Ensure high standards of maintenance of the improvements into the long-term.
17.4. **Security improvement interventions**

- Work with partners to ensure appropriate levels of street lighting in all areas, particularly those near local facilities, to reduce fear and incidence of crime/Anti-social behaviour.
- In addition to plans to improve CCTV coverage of properties, consider using CCTV in other (high-risk) areas, such as parking areas and open spaces.
- Work with partners to ensure maintenance of the local environment/improvements and provide customers and other users with information and mechanisms to report problems such as graffiti, vandalism and litter.

17.5. **Improvements to general physical environment**

- Develop and implement a coherent plan to improve the general physical environment in conjunction with partners (public, private and voluntary) and customers.
- Implement improvements to the general physical environment as early as possible and alongside home improvements.
- Consider the current City West best practice examples of environmental improvements, e.g. the City West “Garden Guerrillas”, and apply to all housing investment areas.
- Refer to the information provided by CABE and the recommendations of the Marmot Review Task Group 4 (see page 76) on the design and maintenance of the physical environment when developing City West land use policies.
- Work with partners to ensure maintenance of the local environment/improvements and provide customers and other users with information and mechanisms to report problems such as graffiti, vandalism and litter.
- Coordinate maintenance and future improvements with external partners.
- Conduct a greenspace typology study, or retrieve results from any conducted by Salford City Council’s greenspace planner/s, to identify the availability, accessibility and suitability of local greenspaces by type (e.g. informal sports, formal sports, walking/dog walking, local nature).
- Promote/provide customer access to a range of greenspace typologies through improved quality and range/type of greenspaces.
- Provide information and support to customers to promote ‘growing things’ at home and in local greenspaces/allotments.
- Work with partners to provide more “user friendly” environments in order to prevent injuries, for example, separate pathways and crossings for cyclists, safe surfaces in play areas, reduced height monkey bars, play areas that are close to homes and are overlooked, reduced speed restrictions (10-20mph) and traffic calming measures.
- Try to provide bike storage/parking facilities
- Try to provide inclusive access to open and green spaces though good design and location of spaces.
- Try to provide a park or small supervised (overlooked) play area within walking distance of every home.

17.6. **Aids and adaptations for the disabled**

- Continue to provide high quality aids and adaptations at the earliest possible point in time.
- Ensure aids and adaptations are maintained to a high standard.
• Regularly review current and potential aids and adaptations demand of City West customers.
• Publicise this service so that all groups are aware of it.
• Ensure City West staff and customers are aware of other sources of support such as Job Centre Plus Access to Work grants (see: http://www.direct.gov.uk/en/DisabledPeople/Employmentsupport/WorkSchemesAndProgrammes/DG_4000347). This scheme can help with the costs of equipment and related training for a wide range of disabilities including people with learning difficulties (e.g. dyslexics).

17.7. Whole house and high-rise refurbishments – the residential relocation process
• Develop a clear, coherent residential relocation strategy for whole house and high-rise refurbishments.
• Define open, transparent and equitable housing relocation systems and processes.
• Make the strategy publicly accessible through the City West website.
• Involve customers in the development of the strategy.
• Offer support to customers who are to be relocated as early on in the process as possible.
• Support all customers who are to be relocated in the form of relocation needs plans that identify health and other forms of support - before, during and after relocation.
• Tailor support to the needs of individuals, with particular attention to the needs of vulnerable customers.
• Prepare document templates with notification of address changes for GPs, social services, schools etc.
• Locate customers within, or as close as possible to, existing communities.
• Where possible give customers choices as to where they relocate.
• Inform City West staff and partners of relocation developments and support for residents.

17.8. Climate change (excess summer heat)
• Develop an explicit, multifaceted approach to managing excess summer heat including improvements to ventilation, green spaces and deciduous tree planting, orientation of any new buildings, green roofs and shade.
• Consider fitting windows that can be opened both at the top and bottom simultaneously (e.g. sash windows) to allow better cooling.

17.9. Identification of vulnerable customers, information management and customer support
• Enhance the City West information management system and data/information collection techniques to enable the identification of all vulnerable groups including those with learning, organisational and mental health issues alongside the information that is currently collected about physical health issues/vulnerabilities.
• Ensure all frontline staff (including contractors and sub-contractors) have access to, and training in, the use of the flagging system and the identification of vulnerable customers, and potentially dangerous customers, preferably through handheld technology.
• Enhance the City West information management system to enable users to systematically identify physically or mentally vulnerable customers.
• Integrate the findings of customer surveys that identify vulnerable customers. Expand the list of questions in surveys to identify further vulnerable groups/individuals.
• Ensure that the system is accessible to all relevant staff, appropriate agencies and actors.
• Obtain advice on the support needs of vulnerable customers from Salford PCT/social services.
• Ensure that all pre-entry customer information collected by contractors is provided to City West.

17.10. Customer participation and involvement in decision making
• Continue and expand the involvement of customers in decision making. Explore opportunities and techniques for involving a wider range of customers; for example, address the practical and financial issues associated with customers attending events such as those relating to access and childcare. Consider new and innovative techniques for customer participation, for example, using disposable cameras or voice recorders (for children or people with literacy difficulties) to capture local issues.
• Relate new techniques for capturing customer feedback to the continued use of HIA in City West.

17.11. Construction safety
Extend safety awareness programmes to the general neighbourhood. As children are one of the main concerns, conduct awareness raising campaigns in local schools.

Deliver leaflets on safety to houses in the general area of the interventions.

17.12. Complaints and the Considerate Contractors Scheme (CCS)
• Some customers may feel uncomfortable complaining about contractor work practices to site managers or directly to the CCS complaints team. Ensure that customers have additional information about making complaints directly to City West. Ensure that complaints are then relayed to site managers and the CCS complaints team.
• Provide information to City West neighbours on how they can complain if they are affected by poor work practices.

17.13. Phasing of works
• Ensure that the phasing of works is designed to reduce the frequency and severity of disturbance for customers.
• Ensure the timing of interventions (e.g. fitting double glazing/doors) is sensitive to the vulnerability of customers.

17.14. Partnerships
• Strengthen links to other local agencies including Local Authority (LA) and PCT community engagement officers, Partners IN Salford and the LA’s regeneration team.
17.15. Policy

- To assist in demonstrating City West's contribution towards implementation of the recommendations of the Marmot Review, consider appropriate utilisation of some of the framework of indicators provided in Annexe 2 of the Marmot report (http://www.ucl.ac.uk/gheg/marmotreview).
- Consider strengthening the links between City West policy and local and regional policies.
- With the exception of commercially sensitive policies, make all City West policies publicly accessible.

17.16. HIA capacity in City West

- Adapt a HIA screening tool (from one of the numerous HIA screening tools currently available, e.g. see: http://www.apho.org.uk/default.aspx?QN=P_HIA).
- Designate responsibilities to screen and conduct HIAs in job role descriptions.
- Identify resources to screen for and conduct HIAs.
- Emphasise the importance (and shared benefits) of community engagement in HIA.
- Join the newly forming HIA support networks in the North West of England (see: http://www.nwph.net/nwhia/default.aspx for further information).
- Develop/adapt a guide to HIA for use within City West and relate to screening tool (particularly levels of HIA).
- Request information from other HIAs conducted in Salford that relate to City West's work programmes.
- Make any future HIA reports publicly accessible by uploading them to the City West website and the HIA Gateway (http://www.apho.org.uk/default.aspx?QN=P_HIA).
- In the longer term – monitor any developments of a combined HIA and Equality Impact Assessment (EqIA/EIA) screening tool to avoid duplication of work, promote integration of approaches and enhance the quality of both the HIA and EqIA screening approaches.
- Ensure continued involvement of the ALS group in the development and implementation of the findings of this HIA and use the ALS group to develop an integration/management plan for the findings of the HIA.

17.17. The process of implementation/construction and communication with customers

- Provide a minimum of 2 and preferably 4 weeks' notice before work commences and provide detailed information on the nature and phasing of work to customers.
- Provide customers with regular updates and early prior notice of any delays/cancellations.
- Consider the use of alternative forms of communication, for example, videos and audio CDs.
- Consider increasing the frequency of the City West Newsletter and the possibility of collaborative newsletters with partners in Salford, for example Salford City Council or Primary Care Trust (PCT).
- Include answers to Frequently Asked Questions (FAQs) in a regular feature about the improvements in the City West newsletter; repeat on website. FAQs should be identified by customer support and helpdesk officers and/or customers through a small representative survey of what customers want to know.
- Consider including statements from residents who have experienced the work being carried out in information about the improvement programme.
- Try to conduct more face to face visits to the homes of affected people, particularly vulnerable people.

17.18. Future developments

- Future developments that include improvement works, building on existing open space or site clearance and rebuild should take into consideration the recommendations of this HIA and the relationship between the regeneration process and health that are summarised within Figure 13, appendix 7 (page 144).
- Plans for future investments in local shops/facilities should take into account the needs of vulnerable people, the importance of external environments (e.g. street lighting, CCTV, quality of materials and high standards of maintenance). The potential negative health impacts of fast-food takeaways and tanning/sun-bed salons should be acknowledged and if possible avoided.

17.19. Publication of HIA findings

- A short, plain English summary should be made available on the City West website with reference to this document and the detailed technical report.
- The HIA reports should be uploaded to the HIA Gateway site.

17.20. Outline management/implementation plan

An example of an outline management/implementation plan is shown in Table 35. The plan needs to be developed by City West staff, in consultation with the IMPACT team, as it necessitates a detailed understanding of the resources that are available for implementation. Some areas may require further research that goes beyond the scope of the HIA.

We recommend that relevant HIA steering group and ALS group members are given opportunities to contribute to the detailed development and delivery of the plan. This will help to ensure the effective delivery of the recommendations and the continued development of HIA capacity within City West.

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<thead>
<tr>
<th>Recommendation</th>
<th>Accept or reject</th>
<th>Delivery champion</th>
<th>Cost/budget</th>
<th>Implementation date</th>
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<td>Remove/repair trip and fall hazards in the homes of older people. Prioritise people with a history of falling and men aged 75 years and over.</td>
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<td>Consider removing home hazards, such as trip hazards, from the homes of</td>
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other vulnerable groups, such as those with chronic illness or disability.

Consider providing safety devices, such as smoke and CO₂ detectors, to all homes.

Consider providing safety devices, such as window bars, to vulnerable groups/individual, e.g. families with children living in high-rise accommodation.

Consider adopting a systematic, evidenced based approach to the identification and removal of home hazards. Investigate the plausibility of fully implementing the HHSRS assessment procedure including the identification of implementation of remedial actions identified by the HHSRS.

Consider a more detailed/robust second stage HIA quantification process based on a more complete HHSRS process.
18. Bibliography


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All hyperlinks were active August 2010.
19. Appendices

19.1. Appendix 1 - Glossary of terms

The following information was taken from the World Health Organization Glossary of Terms Used in HIA (available at http://www.who.int/hia/about/glos/en/index.html) and Health Promotion Glossary (available at http://www.who.int/hpr/NPH/docs/hp_glossary_en.pdf) and adapted for use in this HIA.

Best available evidence

Conclusive evidence of the links between, for example, socio-environmental factors and health or the effectiveness of interventions is not always available. In such cases, the best available evidence – that which is judged to be the most reliable and compelling – can be used, but with caution.

Community engagement/participation

Involving the community in an activity such as the planning of projects or carrying out a HIA. There are a number of models of community participation, some of which are outlined in the Gothenburg consensus paper on HIA (WHO, 1999).

Determinants of health

Determinants of health are factors which influence health status and determine health differentials/ variations or health inequalities. They are many and varied and include, for example, · natural, biological factors, such as age, gender and ethnicity; behaviour and lifestyles, such as smoking, alcohol consumption, diet and physical exercise; the physical and social environment, including housing quality, the workplace and the wider urban and rural environment; and access to health care (Lalonde, 1974; Labonté, 1993). All of these are closely interlinked and differentials in their distribution lead to health inequalities.

Equity in health

Equity in health is not the same as equality in health status. Inequalities in health status between individuals and populations are inevitable consequences of genetic differences, of different social and economic conditions, or a result of personal lifestyle choices. Inequities occur as a consequence of differences in opportunity which result, for example in unequal access to health services, to nutritious food, adequate housing and so on. In such cases, inequalities in health status arise as a consequence of inequities in opportunities in life.

Equity is concerned with creating equal opportunities for health and with bringing health differentials/ variations down to the lowest possible level (Whitehead, 1990). HIA is usually underpinned by an explicit value system and a focus on social justice in which equity plays a major role so that both health inequalities and inequities are explored and addressed wherever possible (Barnes and Scott-Samuel, 1999).

Evidence base

The evidence base refers to a body of information, drawn from routine statistical analyses, published studies and “grey” literature, which tells us something about what is already known about factors affecting health. For example, in the field of housing and health there are a number of studies which demonstrate the links between damp and cold housing, respiratory disease and quality of life (Thomson et al., 2001).
Health gain
Improvement in health status.

Health impact
A health impact can be positive or negative. A positive health impact is an effect which contributes to good or improving health. A negative health impact has the opposite effect, causing or contributing to ill health.

Health inequality and inequity
Health inequalities can be defined as differences in health status or in the distribution of health determinants between different population groups. For example, differences in mobility between elderly people and younger populations or differences in mortality rates between people from different social classes. It is important to distinguish between inequality in health and inequity. Some health inequalities are attributable to biological variations or free choice and others are attributable to the external environment and conditions mainly outside the control of the individuals concerned. In the first case it may be impossible to change the health determinants and so the health inequalities are unavoidable. In the second, the uneven distribution may be unnecessary and avoidable as well as unjust and unfair, so that the resulting health inequalities also lead to inequity in health.

Healthy public policy
Healthy public policy is a key component of the Ottawa Charter for Health Promotion (WHO, 1986). The concept includes policies designed specifically to promote health (for example banning cigarette advertising) and policies not dealing directly with health but acknowledged to have a health impact (for example, transport, education, economics) (Lock, 2000).

Impact assessment
Impact assessment is about judging the effect that a policy or activity will have on people or places. It has been defined as the "prediction or estimation of the consequences of a current or proposed action" (Vanclay and Bronstein, 1995).

Monitoring and evaluation
Monitoring is the process of keeping track of events. For example, the monitoring of a project may involve counting the number of people coming into contact with it over a period of time or recording the way in which the project is administered and developed. Evaluation involves making a judgement as to how successful (or otherwise) a project has been, with success commonly being measured as the extent to which the project has met its original objectives. Process evaluation looks at the success of the HIA process and, inter alia, identifies the problems/barriers and enablers to the process. Impact evaluation looks at how the HIA changed decision making. Outcome evaluation looks at the changes in health status (e.g. mortality levels) that occurred as a result of the HIA and its impact on decision making.

Multidisciplinary
HIA is not the preserve of any one disciplinary group. Instead, it draws on the experience and expertise of a wide range of "stakeholders", who are involved throughout the process. These may include professionals with knowledge relevant to the issues being addressed, key decision makers, relevant voluntary organisations and – perhaps most importantly – representatives of the communities whose lives will be affected by the policy (Barnes and Scott-Samuel, 1999).
Neighbourhood
The term neighbourhood usually refers to a local area which is defined in some way physically (for example, an estate or an area bounded by major roads) or by people’s perceptions of what constitutes their local area. Neighbourhoods are usually fairly small.

Health gain
Health gain is a way to express improved health outcomes (see below). It can be used to reflect the relative advantage of one form of health intervention over another in producing the greatest health gain.

Health indicator
A health indicator is a characteristic of an individual, population, or environment which is subject to measurement (directly or indirectly) and can be used to describe one or more aspects of the health of an individual or population (quality, quantity and time).

Health outcome
A change in the health status of an individual, group or population which is attributable to a planned intervention or series of interventions, regardless of whether such an intervention was intended to change health status. Examples of health outcomes include levels of obesity, heart disease, depression and mortality, and levels of mortality and life expectancy.

Partnership
A group of people or organisations brought together with a common purpose such as developing a regeneration programme or undertaking. In the context of this HIA partners may include, amongst others, City West, Salford Council and NHS Salford.

Policy
A policy can be defined as an agreement or consensus on a range of issues, goals and objectives which need to be addressed (Ritsatakis et al., 2000). For example, “Saving Lives: Our Healthier Nation” can be seen as a national health policy aimed at improving the health of the population of England, reducing health inequalities and setting objectives and targets which can be used to monitor progress towards the policy’s overall goal or aims.

Process
A course of action or series of (related) activities.

Programme
The term programme usually refers to a group of activities which are designed to be implemented in order to reach policy objectives (Ritsatakis et al., 2000). For example, the housing improvement programme has a range of themes. Themes often include health, community safety, employment and housing. Within these themes are a number of specific projects which, together, make up the overall programme.

Project
A project is usually a discrete piece of work addressing a single population group or health determinant, usually with a pre-set time limit. For example, “Private Rented Dwellings” was a three year project in Southport, Merseyside which provided money to private landlords in order to bring their rented properties up to housing fitness standards (Hirschfield et al., 2001 cited in Dreaves et al, 2007).
Proportionate universalism
‘To reduce the steepness of the social gradient in health, actions must be universal, but with a scale and an intensity that is proportionate to the level of disadvantage. We call this proportionate universalism’ (Marmot et al, 2010).

Qualitative and quantitative
Generally speaking, quantitative evidence is based on what can be counted or measured objectively whilst qualitative evidence cannot be measured in the usual ways and may more subjective, for example, encompassing people’s perceptions, opinions and views. Both forms of evidence are valued and used in HIA.

Regeneration
Regeneration is a broad concept used to describe a wide variety of measures that are designed to revive disadvantaged (mainly urban) areas. This might include modifying the physical environment, altering lifestyles, improving leisure opportunities and enhancing the training and employment prospects of local residents. Regeneration can be a continual/cyclical process; see appendix 5 (Page 144) for further information.

Resource allocation
The process of deciding what is needed to carry out an activity and providing for those needs. This can include making provision for financial resources (money), capital resources (such as buildings and computer hardware) and staff resources (including the number of staff needed and the skill mix required).

Scoping
Scoping involves defining what will be assessed by the HIA and the boundaries of the assessment. HIA tends to set boundaries relating to the affected population groups (e.g. City West residents, local residents, Salford residents, local workers and tourists) and boundaries relating to the availability of data/evidence (e.g. data aggregated to Salford LA), rather than just using (potentially over simplistic) geographic boundaries (e.g. within 300m of a proposed development).

Screening
Screening usually refers to an initial step being taken in order to determine whether a policy, programme or project should be subject to a HIA. Screening can be used to determine priorities (i.e. which intervention is most in need of a HIA) when resources for conducting HIAs are limited.

Steering group
A group of people brought together to oversee a piece of work such as a HIA. Typically, a steering group might be made up of representatives of relevant professional groups, key statutory agencies and the local community (Barnes, 2000). The HIA steering groups Terms of Reference (ToR) is an agreed set of guidelines for the steering, for example, including frequency of meetings and roles and responsibilities of the steering group. Note: HIAs should have two ToRs, one for the steering group and one for the assessment. The assessment ToR is agreed by the steering group and contains information on the nature of the assessment such as depth and scope of the assessment, resources and time schedule.
Strategy
A series of broad lines of action intended to achieve a set of goals and targets set out within a policy or programme (Ritsatakis et al., 2000). For example, within the themes of Single Regeneration Budget or New Deal for Communities initiatives it is usual to set out the strategic direction needed to be taken in order to achieve the goals and objectives of each theme, such as reducing unemployment, improving health or raising educational attainment.

Sustainability and sustainable development
‘Development which meets the needs of present generation without compromising the ability of future generations to meet their own needs’ (United Nations, 1987). Health equity is a prerequisite of sustainable development.

Vulnerable people/groups
Vulnerable people/groups are those who are more susceptible to the (positive and negative) health impacts of a policy or intervention. They vary according to the nature of the policy/intervention but are likely to include:
- Elderly people
- Disabled people
- Children
- People with chronic health conditions
- Families with young children
- Certain ethnic groups
- People on fixed or low incomes
- The unemployed
- People with mental health problems
- People with learning or organisational difficulties.

Workshops
Workshops involve bringing together a group of people for a specific purpose. In HIA this might involve, for example, identifying key stakeholders’ health concerns in relation to the policy, programme or project being addressed. Workshops are usually structured in some way with a mixture of presentations and “hands on” participative work.
19.2. Appendix 2 - The Decent Homes Standard

A decent home is *one which is wind and weather tight, warm and has modern facilities.* It reflects what social landlords spend their money on. To set a national target a common definition of decent is needed so all social landlords can work towards the same goal.

A decent home meets the following four criteria:

**(1) It meets the current statutory minimum standard for housing**
Dwellings below this standard are those defined as unfit under section 604 of the *Housing Act 1985* (as amended by the 1989 *Local Government and Housing Act*).

**(2) It is in a reasonable state of repair**
Dwellings which fail to meet this criterion are those where either:
- one or more of the key building components are old and, because of their condition, need replacing or major repair; or
- two or more of the other building components are old and, because of their condition, need replacing or major repair.

**(3) It has reasonably modern facilities and services**
Dwellings which fail to meet this criterion are those which lack three or more of the following:
- a reasonably modern kitchen (20 years old or less);
- a kitchen with adequate space and layout;
- a reasonably modern bathroom (30 years old or less);
- an appropriately located bathroom and WC;
- adequate insulation against external noise (where external noise is a problem);
- adequate size and layout of common areas for blocks of flats.

**(4) It provides a reasonable degree of thermal comfort**
This criterion requires dwellings to have both effective insulation and efficient heating.

A home lacking two or less of the above is still classed as decent therefore it is not necessary to modernise kitchens and bathrooms if a home passes the remaining criteria.

The Government set the target ‘To have all social rented homes meeting the Standard by 2010’ (ODPM, 2006).

Further information is available @ [http://www.decenthomesstandard.co.uk/about](http://www.decenthomesstandard.co.uk/about).
19.3. Appendix 3 - City West Properties

Information on the age and types of City West properties is summarised in Table 37.

<table>
<thead>
<tr>
<th>Build Period</th>
<th>Property Type</th>
<th>No of Properties</th>
<th>No of Tenants</th>
<th>No of Other Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Pre 1920</td>
<td>02- Detached Bungalow</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1- Pre 1920</td>
<td>03- Detached House</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>1- Pre 1920</td>
<td>05- End Ter House</td>
<td>50</td>
<td>61</td>
<td>54</td>
</tr>
<tr>
<td>1- Pre 1920</td>
<td>13- Mid Ter House</td>
<td>155</td>
<td>178</td>
<td>162</td>
</tr>
<tr>
<td>1- Pre 1920</td>
<td>16- Semi Ter House</td>
<td>104</td>
<td>120</td>
<td>106</td>
</tr>
<tr>
<td>2- 1920-45</td>
<td>02- Detached Bungalow</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>2- 1920-45</td>
<td>03- Detached House</td>
<td>3</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>2- 1920-45</td>
<td>04- End Ter Bungalow</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2- 1920-45</td>
<td>05- End Ter House</td>
<td>330</td>
<td>401</td>
<td>392</td>
</tr>
<tr>
<td>2- 1920-45</td>
<td>08- Low Rise Flat</td>
<td>63</td>
<td>64</td>
<td>1</td>
</tr>
<tr>
<td>2- 1920-45</td>
<td>12 Low Rise Flat</td>
<td>4</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>2- 1920-45</td>
<td>13- Mid Ter House</td>
<td>460</td>
<td>571</td>
<td>541</td>
</tr>
<tr>
<td>2- 1920-45</td>
<td>15- Semi Det Bungalow</td>
<td>127</td>
<td>170</td>
<td>24</td>
</tr>
<tr>
<td>2- 1920-45</td>
<td>16- Semi Det House</td>
<td>1846</td>
<td>2313</td>
<td>2363</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>01- Cottage Flat</td>
<td>1798</td>
<td>1888</td>
<td>303</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>02- Detached Bungalow</td>
<td>24</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>03- Detached House</td>
<td>4</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>04- End Ter Bungalow</td>
<td>192</td>
<td>225</td>
<td>9</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>05- End Ter House</td>
<td>1311</td>
<td>1579</td>
<td>1330</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>06- End Ter Town House</td>
<td>12</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>07- Flat Over Shop</td>
<td>19</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>08- Low Rise Flat</td>
<td>888</td>
<td>926</td>
<td>93</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>09-Maisonette Med Rise</td>
<td>154</td>
<td>161</td>
<td>118</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>10- Maisonette Over Shop</td>
<td>51</td>
<td>48</td>
<td>34</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>11- Med Rise Flat</td>
<td>1318</td>
<td>1412</td>
<td>412</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>12 Mid Ter Bungalow</td>
<td>224</td>
<td>246</td>
<td>5</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>13- Mid Ter House</td>
<td>1583</td>
<td>1918</td>
<td>1867</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>14- Mid Terr Town House</td>
<td>38</td>
<td>44</td>
<td>91</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>15 Multi Story Flat</td>
<td>906</td>
<td>885</td>
<td>58</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>16- Semi Det Bungalow</td>
<td>625</td>
<td>753</td>
<td>31</td>
</tr>
<tr>
<td>3- 1946-79</td>
<td>17- Semi Det House</td>
<td>1556</td>
<td>1915</td>
<td>1808</td>
</tr>
<tr>
<td>4- Post 80</td>
<td>01- Cottage Flat</td>
<td>409</td>
<td>462</td>
<td>50</td>
</tr>
<tr>
<td>4- Post 80</td>
<td>02- Detached Bungalow</td>
<td>19</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>4- Post 80</td>
<td>05- End Ter House</td>
<td>99</td>
<td>135</td>
<td>118</td>
</tr>
<tr>
<td>4- Post 80</td>
<td>08- Low Rise Flat</td>
<td>17</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>4- Post 80</td>
<td>11- Mid Rise Flat</td>
<td>105</td>
<td>104</td>
<td>1</td>
</tr>
<tr>
<td>4- Post 80</td>
<td>12- Mid Ter House</td>
<td>154</td>
<td>187</td>
<td>179</td>
</tr>
<tr>
<td>4- Post 80</td>
<td>15- Semi Det Bungalow</td>
<td>9</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>4- Post 80</td>
<td>16- Semi Det House</td>
<td>13</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>14677</td>
<td>16927</td>
<td>10205</td>
</tr>
</tbody>
</table>
19.4. Appendix 4 - Example of HIA workshop programme

DRAFT Workshop Programme

1.00  Registration and light refreshments

1.15  Welcome and purpose of the workshop

1.25  What is Health Impact Assessment?

What is involved in the HIA of City West's investment programme?

1.40  Overview of Housing and Neighbourhood Investment Programme.

2.00  Questions and answers

2.10  Introduction to the group work

2.20  Focus groups

3.30  Workshop feedback and plenary discussion including next steps

3.45  Evaluation of the day

4.00  Closing remarks and thanks

End
19.5. Appendix 5 Telephone survey questions
The telephone survey questions are summarised below; these were also accompanied by the additional demographic questions contained in appendix 6.

Q1 - Building and construction work may cause disruption to the activities of everyday life for a number of people. Do you think that the work will have an effect on the following:
- Children’s education
- Home safety/risk of accidents (e.g. falls in the home, electric shocks)
- Home security or people’s fear of crime
- Local transport (and parking) and people’s ability to access work, shops or services
- People’s “stress levels”
- Relationships with family and friends
- Activities inside the home like cooking, cleaning and watching TV
- Activities outside the home like children’s play, walking, running and cycling

Q2 - Are there any other potential impacts you can think of that may arise from the construction work?

Q3 - What type of people do you think might be most affected by possible disruption caused by the construction work?

Q4 - Once the work is complete (operation phase) we are interested in how you think this may affect people and whether it will have a positive, negative or no effect. Do you think the investment work will affect:
- People’s ability to heat their homes
- Home safety/risk of accidents (e.g. falls in the home, electric shocks)
- Home security or people’s fear of crime
- People’s sense of community/community pride
- Relationships with family and friends (e.g. inviting people over)
- Activities inside the home like cooking, cleaning and watching TV
- Activities outside the home like children’s play, walking, running and cycling
- People’s sense of wellbeing

Q5 - Are there any other potential impacts that you can think of that may arise from the housing and neighbourhood investments programme?

Q6 - What types of people do you think might be most affected by home improvements on completion of the neighbourhood investments programme?

Q6 – Any others?

Q7 - Are you currently:
- Retired
- Employed full time
- Unemployed
- Permanently sick / disabled
- Looking after home / family
- Employed part time
- Self-employed
- Student - not working
- Part-time student working part-time
- Full-time student working part-time
- Prefer not to say
- Other

Q8 – Type of residence?
# Telephone survey demographic information

## Table 37 Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>295</td>
<td>37.5%</td>
</tr>
<tr>
<td>Female</td>
<td>491</td>
<td>62.5%</td>
</tr>
<tr>
<td>Total</td>
<td>786</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

## Table 38 Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-24</td>
<td>57</td>
<td>7.3%</td>
</tr>
<tr>
<td>25-34</td>
<td>100</td>
<td>12.7%</td>
</tr>
<tr>
<td>35-44</td>
<td>119</td>
<td>15.1%</td>
</tr>
<tr>
<td>45-54</td>
<td>138</td>
<td>17.6%</td>
</tr>
<tr>
<td>55-64</td>
<td>142</td>
<td>18.1%</td>
</tr>
<tr>
<td>65 or over</td>
<td>223</td>
<td>28.4%</td>
</tr>
<tr>
<td>Prefer not to say</td>
<td>7</td>
<td>0.9%</td>
</tr>
<tr>
<td>Total</td>
<td>786</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

## Table 39 Economic status

<table>
<thead>
<tr>
<th>Economic status</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retired</td>
<td>271</td>
<td>34.5%</td>
</tr>
<tr>
<td>Employed full time</td>
<td>129</td>
<td>16.4%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>121</td>
<td>15.4%</td>
</tr>
<tr>
<td>Permanently sick / disabled</td>
<td>87</td>
<td>11.1%</td>
</tr>
<tr>
<td>Looking after home / family</td>
<td>68</td>
<td>8.7%</td>
</tr>
<tr>
<td>Employed part time</td>
<td>58</td>
<td>7.4%</td>
</tr>
<tr>
<td>Self-employed</td>
<td>16</td>
<td>2.0%</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
<td>1.9%</td>
</tr>
<tr>
<td>Student - not working</td>
<td>14</td>
<td>1.8%</td>
</tr>
<tr>
<td>Prefer not to say</td>
<td>4</td>
<td>0.5%</td>
</tr>
<tr>
<td>Part-time student working part-time</td>
<td>3</td>
<td>0.4%</td>
</tr>
<tr>
<td>Full-time student working part-time</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
<td>786</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

## Table 40 Economic status (other)

<table>
<thead>
<tr>
<th>Economic activity (other)</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time carer.</td>
<td>8</td>
</tr>
<tr>
<td>Retired but working.</td>
<td>1</td>
</tr>
<tr>
<td>Unemployed due to sickness.</td>
<td>1</td>
</tr>
<tr>
<td>Unemployed - disability.</td>
<td>2</td>
</tr>
<tr>
<td>Unemployed due to disability.</td>
<td>1</td>
</tr>
<tr>
<td>Voluntary work.</td>
<td>2</td>
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<tr>
<td>Total</td>
<td>15</td>
</tr>
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</table>
### Table 41 Type of residence

<table>
<thead>
<tr>
<th>Type of residence:</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-detached</td>
<td>272</td>
<td>34.6%</td>
</tr>
<tr>
<td>Flat (low-rise)</td>
<td>240</td>
<td>30.5%</td>
</tr>
<tr>
<td>Terraced</td>
<td>139</td>
<td>17.7%</td>
</tr>
<tr>
<td>Flat (high-rise)</td>
<td>58</td>
<td>7.4%</td>
</tr>
<tr>
<td>Other</td>
<td>37</td>
<td>4.7%</td>
</tr>
<tr>
<td>Detached</td>
<td>28</td>
<td>3.6%</td>
</tr>
<tr>
<td>Sheltered accommodation</td>
<td>12</td>
<td>1.5%</td>
</tr>
<tr>
<td>Total</td>
<td>786</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

### Table 42 Type of residence (other)

<table>
<thead>
<tr>
<th>Type of residence (other)</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apartment.</td>
<td>1</td>
</tr>
<tr>
<td>Bedsit.</td>
<td>1</td>
</tr>
<tr>
<td>Bungalow (sheltered).</td>
<td>1</td>
</tr>
<tr>
<td>Bungalow.</td>
<td>11</td>
</tr>
<tr>
<td>Cottage Flat.</td>
<td>2</td>
</tr>
<tr>
<td>Detached bungalow.</td>
<td>1</td>
</tr>
<tr>
<td>End house of 5.</td>
<td>1</td>
</tr>
<tr>
<td>Flat (mid-rise).</td>
<td>1</td>
</tr>
<tr>
<td>Maisonette.</td>
<td>6</td>
</tr>
<tr>
<td>Modified bungalow.</td>
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</tr>
<tr>
<td>Quasi-semi detached.</td>
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</tr>
<tr>
<td>Quasi-semi.</td>
<td>9</td>
</tr>
<tr>
<td>Semi-Detached Bungalow.</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
</tr>
</tbody>
</table>
19.7. Appendix 7 - The regeneration process and health

In the context of social housing, regeneration is a continual, cyclical process. Health can be affected by all stages the process, as summarised in Figure 13. Regeneration and new build (including clearance and rebuild) developments need to consider the health impacts at each stage; where possible/relevant, cumulative impacts should also be considered.

Figure 13 The regeneration process and its relationship to health.

Source: Created for this HIA report