

A Quantitative Health Impact Assessment: The cost of private sector housing and prospective housing interventions in Merton

28 July 2015

Merton Council has recognised that poor housing has an important effect on health as most occupiers spend longer in their own home than anywhere else. Additional information is also required concerning private sector housing in order to inform the Joint Strategic Needs Assessment (JSNA).

- The council has commissioned BRE to produce housing stock models to help understand the condition of the private sector housing within their area (these are provided in a separate report). The housing stock model is based on data gathered from a number of sources (including the English Housing Survey (EHS)) and includes an assessment of dwelling hazards using the Housing Health and Safety Rating System (HHSRS). This data from the housing stock model has then been used as a basis for this Health Impact Assessment (HIA) to better understand the effect of private sector housing hazards and intervention strategies on the health of residents in Merton.
- A HIA is a formal method of assessing the impact of a project, procedure or strategy on the health of a population. This HIA draws on evidence of the health impact of hazards identified using the Housing Health and Safety Rating System (HHSRS¹) and a methodology developed by the BRE Trust and published in the “Real Cost of Poor Housing”². The HHSRS is the method by which housing condition is now assessed in accordance with the Housing Act 2004. A dwelling with a category 1 hazard is considered to fail the minimum statutory standard for housing and is classified as “poor housing”.
- This report provides a quantitative HIA for the London Borough of Merton which covers:
 - The condition of private sector housing and the estimated effect on the health of occupiers
 - The cost of prospective interventions to reduce the number of hazards
 - The costs to the NHS and wider society of treating these health issues
 - The health cost benefit analysis of interventions to reduce some of these hazards
 - An analysis of Quality Adjusted Life Years (QALYs) relating to housing hazards

¹ Housing Health and Safety Rating System Operating Guidance, Housing Act 2004, Guidance about Inspections and Assessments given under Section 9, ODPM, 2006

² The Real Cost of Poor Housing, M Davidson *et al.*, IHS BRE Press, February 2010

The main results are shown in the summary table below and the headline results are as follows:

HIA for the London Borough of Merton, private sector stock

There are an estimated 8,967 category 1 hazards in Merton's private sector stock, of which over 3,300 are within the privately rented sector. *See full results*

The estimated total cost of mitigating all these hazards is £33 million with £13.3 million in the private rented sector. *See full results*

It is estimated that poor housing conditions are responsible for around 463 harmful events requiring medical treatment every year. *See full results*

The estimated cost to the NHS of treating accidents and ill-health caused by these hazards is almost £1.6 million each year. If the wider costs to society are considered, the total costs are estimated to be just under £4 million. *See full results*

If these hazards are mitigated then the total annual savings to society are estimated to be £3.7 million, including £1.5 million of savings to the NHS. *See full results*

Poor housing is estimated to cost around 170 quality-adjusted life-years (QALYs). *See full results*

Summary of results, private sector stock

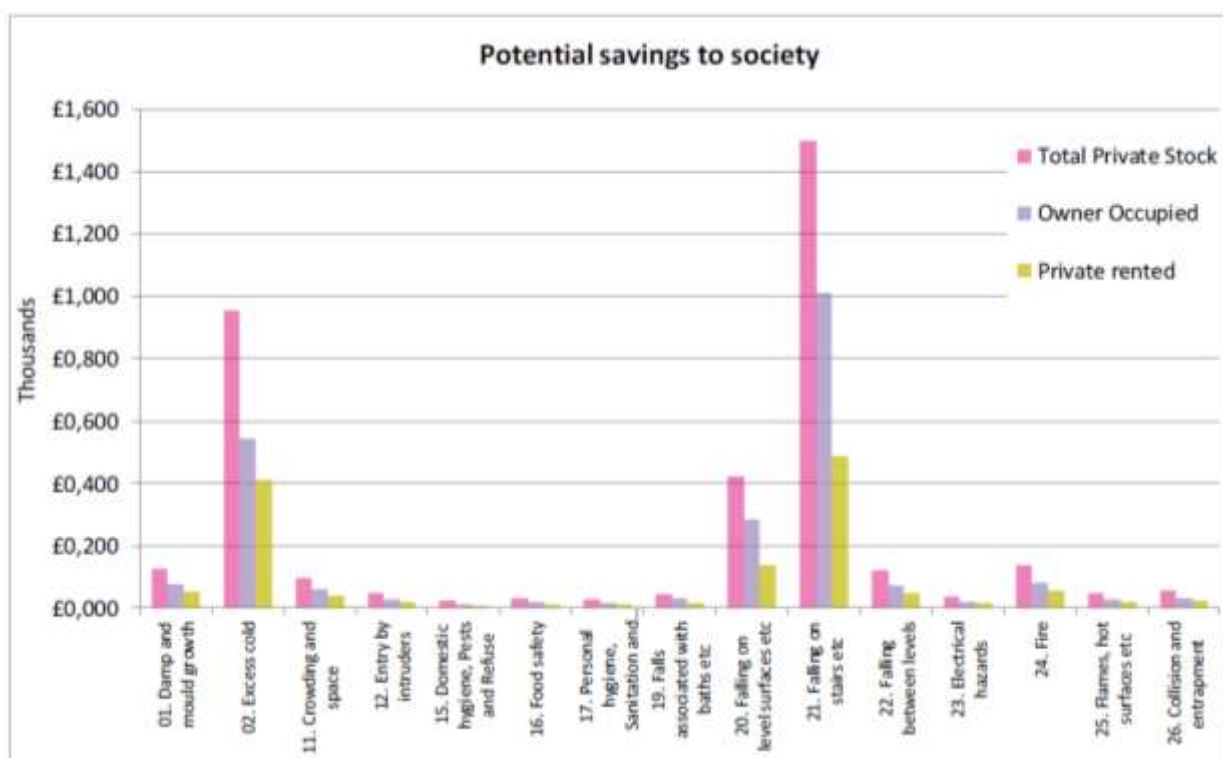
Housing hazard type	Numbers of hazards (total private sector stock)	Estimated number of instances requiring medical intervention	Cost of mitigating all hazards	Potential annual costs of not mitigating hazards		Potential annual savings from mitigating hazards		Cost benefit analysis			
				Costs to NHS	Costs to society	Savings to NHS	Savings to society	Cost benefit to NHS		Cost benefit to Society	
								Positive cost benefit year where 20% works are carried out	Positive cost benefit year where 50% works are carried out	Positive cost benefit year where 20% works are carried out	Positive cost benefit year where 50% works are carried out
Damp and mould growth	151	76	£1,776,075	£51,198	£1,724,877	£51,030	£1,673,847	4	7	2	3
Excess cold	2,521	14	£18,738,153	£423,770	£18,314,383	£381,390	£17,933,015	7	15	3	6
Crowding and space	32	3	£749,810	£28,720	£721,090	£30,050	£691,040	5	12	2	5
Entry by intruders	92	31	£133,212	£26,640	£106,572	£16,730	£89,842	2	4	1	2
Domestic hygiene, Pests and Refuse	88	29	£541,536	£9,330	£532,206	£9,330	£522,876	Excluded	Excluded	Excluded	Excluded
Food safety	72	12	£784,470	£13,780	£770,690	£13,680	£757,010	Excluded	Excluded	Excluded	Excluded
Personal hygiene, Sanitation and Drainage	64	11	£300,570	£12,060	£288,510	£12,040	£276,470	Excluded	Excluded	Excluded	Excluded
Falls associated with baths etc	81	5	£63,990	£18,410	£45,580	£18,340	£27,240	0	0	0	0
Falling on level surfaces etc	888	49	£1,382,271	£189,410	£1,192,861	£169,570	£1,023,291	1	2	1	1
Falling on stairs etc	3,782	119	£5,248,575	£845,480	£4,403,095	£600,060	£3,803,035	1	2	1	1
Falling between levels	437	44	£720,779	£48,180	£672,599	£48,930	£623,669	2	5	1	2
Electrical hazards	62	3	£337,725	£14,890	£322,835	£14,850	£307,985	Excluded	Excluded	Excluded	Excluded
Fire	302	5	£1,324,861	£55,480	£1,269,381	£54,830	£1,214,551	4	8	2	4
Flames, hot surfaces etc	130	23	£479,961	£20,040	£459,921	£19,440	£440,481	1	2	1	1
Collision and entrapment	236	36	£235,724	£24,320	£211,404	£22,640	£188,764	0	0	0	0
TOTAL	8,967	463	£33,848,986	£1,888,830	£31,960,156	£1,475,980	£30,484,176	n/a	n/a	n/a	n/a

(N.B. due to data availability, some hazards are excluded from the cost benefit analysis. The estimated number of hazards is more than the number of dwellings containing hazards since a dwelling can contain more than one hazard, the numbers in the cost benefit analysis columns relate to the payback periods [years] achieved through the mitigation of the least expensive 20% and 50% of hazards).

As well as the estimated number of hazards present it is also possible to estimate the number of persons living in private sector housing within Merton that are expected to be affected by the hazards. These estimates are based on the number of dwellings being occupied by a person who may be in the “risk” group for a particular hazard (the vulnerable age group).

- The estimated annual cost to society of fall hazards associated with older people is estimated at £2.1 million but a saving of £2 million is estimated as being possible. This indicates that repairs and improvements to stairs, floors and paths, plus additional safety arrangements for baths are likely to be the cost effective.
- The estimated costs and savings can be shown by tenure. The largest costs and savings are within owner occupied dwellings but the estimated savings to society when all category 1 hazards in the privately rented sector are mitigated is £1.4 million as shown in the graph below.

Potential savings to society following mitigation work, by hazard and tenure, all private sector stock and split into tenure



- The health cost benefit analysis of interventions to reduce some of these hazards has been developed to show the costs and savings to the NHS and to society as a whole from carrying out work in dwellings with the least expensive 20% and 50% of required works. By focussing on the less expensive works, the expected payback periods (the number of years to reach the break-even point) are shorter. The table on the previous page shows that the shortest payback periods are for the hazards of collision and entrapment and some of the falls hazards. The longest payback periods are associated with the more complex hazards of damp and mould, excess cold and crowding and space.
- The quantitative information provided in this HIA on the impact of private sector housing on health, will provide an invaluable contribution to the JSNA. The results will contribute to the provision of evidence of the costs, savings and benefits of improving housing in the private sector, and the costs to health of not doing so. Some recommendations are provided which look at possible interventions in order to assist the council in making

decisions concerning where resources can best be targeted to improve private sector dwellings in Merton. Local knowledge will be key in targeting resources to gain the greatest benefit in both geographical areas and population profile. The importance of a Home Improvement Agency or a Handy Person Service to help take action is identified by this report.

Main recommendations:

- Within the private rented sector, the annual cost to society of category 1 hazards is estimated to be £1.5 million. Work to mitigate these hazards will need to be carried out by landlords in accordance with legislation in the Housing Act 2004. To facilitate this, an active housing enforcement strategy will be necessary.
- Landlord Accreditation Schemes can help to educate landlords on the need to mitigate hazards.
- The hazard of damp and mould particularly affects children and can cause long term effects that may well be underestimated by this piece of work (the evidence is not available to quantify the true cost over a long time period). Flames and hot surfaces and falling between levels also specifically affect children. Education using a multi-agency approach with Health Visitors or through Children's Centres and accessing local knowledge will be crucial to reducing these hazards. Professionals working with families in the private rented sector should be made more aware of landlord duties.
- The evidence indicates that initiatives to reduce the incidence of falls at home should be one of the more cost effective strategies. The cost benefit scenarios show that the best value initiatives will look to small-scale repair or improvement works to stairs, trip hazards within the home and to uneven paths. Targeting this initiative towards dwellings occupied by persons over 60 will bring the greatest benefit.