

Governing Urban Transformation

How can alleviating fuel poverty,
across all tenures (rental / owner
occupied etc), in Greater Manchester,
improve the economy of Greater
Manchester?

12th May 2017

9069724 and 8923308

Author declaration.

I, 8923308, confirm that this report is based on my own work and that I am happy with both my own and my partner's, 9069724, contribution to the final submitted version.

List of Contents

Acknowledgements	iii
Executive summary.	iv
1. The hindrance of fuel poverty	1
2. Locating the Research.	1
3. Methods.	2
4.1. Scoping Interview.	2
4.2. Grey Literature.	2
4. Research Questions.	3
5. Greater Manchester’s future without fuel poverty?	3
5.1. Economic burdens of fuel poverty.	3
5.2. Weighing up the economic costs.	3
5.3. What can Greater Manchester learn from SHINE, Islington?	4
5.4. Co-benefits.	6
6. Conclusions.	6
References	8

Acknowledgements

Special thanks to James and Joe for providing help throughout the course of this report. We would also like to thank Caitlin Robinson, who was a great help at the beginning of research. Finally, we would like to acknowledge the organisation SHINE, who provide essential help to those most vulnerable in society.

Thank you!

Executive summary.

Fuel poverty smothers many deprived communities across the UK. This report will place specific attention on Greater Manchester. Using the methods: Scoping Interviews and Grey Literature, the health, environmental and economic impacts generated from fuel poverty will be explored drawing on the case study of Seasonal Health Interventions Network (SHINE), Islington which will act as an exemplary site of strategy to alleviating fuel poverty. It is then argued that Greater Manchester could mirror these methods to combat fuel poverty, leading to a conclusion examining the complex and intricate relationship fuel poverty has with the economy and the undeniable gains alleviation will have to the likes of the NHS.

1. The hindrance of fuel poverty

Defined as “someone on a lower income, living in a home which cannot be kept warm at a reasonable cost” (Secretary of State, 2000), fuel poverty does “not allow for participating in the lifestyles, customs and activities that define membership [in] society” (Bouzarovski and Petrova, 2015: p33). Therefore fuel poverty hinders economic growth. The main drivers of fuel poverty range from inefficient housing stock to poor quality housing: which is then enhanced by policies such as the decline of social housing and privatisation (CSE, 2017). With issues such as this and rising fuel prices, fuel poverty in Greater Manchester (GM) is becoming increasingly problematic. Thus fuel poverty ‘has been used to capture problems of inadequate access to energy’ (Bouzarovski and Petrova, 2015: p31). 1 in 5 households in the area are classed as fuel poor, with numbers rising (GMPA, 2016). This has resulted in a host of economic as well as infrastructural, health and educational concerns (Bouzarovski and Petrova, 2015)

Written for GMCA, this report aims to examine the devastating impacts of fuel poverty on the economy, whilst suggesting methods to alleviate current pressures and mitigate potential future problems. The impacts of fuel poverty will be explored with emphasis on how the alleviation of such a prevalent issue could improve GM’s economy. It is essential to address the links between economic aspects of society and fuel poverty as they are a key component of the wider relationship between energy and economic development (Bouzarovski and Petrova, 2015). Consequently, the number of vulnerable groups restricted by fuel poverty within society is rising, crippling the economy due to the increased dependency of those fuel poor (Shortt and Rugkåsa, 2007).

2. Locating the Research.

Situated in North West England, GM is comprised of ten districts (Manchester City Council, 2017). It is the fifth most deprived local authority area in England (ibid., 2015). Consequently issues such as deprivation have exacerbated fuel poverty, with communities in the area increasingly struggling to perform basic functions such as cooking, heating, lighting and showering within their homes (Haas et al., 2008). While we acknowledge there are already initiatives in GM that address fuel poverty, such as the national scheme Warm Home Discount, which are a positive starting point, we believe there is still a significant need for localised approaches, tailored to specific community needs, as progress would then be more specialised. Therefore we will draw from the organisation Seasonal Health Interventions Network (SHINE), Islington, North

London whose strategies to alleviate fuel poverty embody a localised community approach.

3. Methods.

4.1. Scoping Interview.

Knowledge is achieved through experience (Kitchin and Tate, 2000), which is why our first method of research was a semi structured, informal interview with Caitlin Robinson to firstly examine the issues surrounding fuel poverty and the impacts of this growing phenomenon from the perspective of someone whose expertise is in this area. Caitlin is a PhD student currently mapping vulnerability to fuel poverty within the UK, forecasting the future demand for energy on this basis. The nature of this interview was more flexible than other qualitative methods as it allowed the conversation to flow whilst being semi structured around planned questions to prompt the direction of the interview, meaning that Caitlin could respond openly using her own words to explore the subject from an experienced angle (Longhurst, 2003).

4.2. Grey Literature.

The second stage of research was the examination of grey literature. Due to the nature of this topic, primary research was incredibly difficult to carry out. Grey literature tends to be produced by experts in the field (Pappas and Williams, 2011), presenting a broad scope of all available evidence (Mahood et al., 2013). It was therefore a beneficial method as it conveys new information to a nonspecialist audience (ibid., 2011), and minimises potential bias within this research report (Blackhall and Ker, 2007). Grey literature articles were chosen, exploring the impacts of fuel poverty on the economy, and strategies chosen to alleviate these impacts. A case study selection occurred where specific attention was placed on the organisation SHINE, Islington, which has seen positive impacts on the economy from fuel poverty alleviation (Ashden, 2015). The case study was then applied to GM, examining how GM could learn and benefit from SHINE's specific strategies. We will use it as a learning process to reflect on the suitability of the different aspects of fuel poverty. Although it is important to be sensitive to the differences between the two districts, SHINE's localised community approach of engagement and participation (ibid., 2015) was one of the stand out elements, as it meant approaches used by the organisation could easily be adopted by and integrated into GM. Subsequently, research questions have been framed to examine fuel poverty

within GM, and how alleviation of fuel poverty in Islington could be applied to GM, ultimately benefiting it's economy.

4. Research Questions.

- How could Greater Manchester learn from the project SHINE, Islington, when it comes to alleviating fuel poverty?
- How might the alleviation of the impacts of fuel poverty improve Greater Manchester's economy?

5. Greater Manchester's future without fuel poverty?

This section will outline the economic costs of fuel poverty. Following on from this, case studies will provide strategies that GM could mirror. The cost of this alleviation will then briefly be stated, whilst emphasising that the chosen strategies will result in undeniable improvements to GM's economy due to the generation of savings created by fuel poverty alleviation.

5.1. Economic burdens of fuel poverty.

Research has shown the indisputable effects occurring to those living in fuel poverty, ranging from impacts on physical health to aspects on ones mental health, such as depression (Liddell and Morris, 2010). When examining grey literature it was clear to see how this is an unsustainable financial burden on national services, costing the NHS around £1.36 billion per year to treat those suffering from illnesses caused and exacerbated by cold homes (FPH, 2014). This in time has produced knock on effects on everyday practices, with those fuel poor unable to work, socialise and integrate into society (Liddell and Morris, 2010). This arguably suggests a strong link between fuel poverty and welfare provision, as a downward spiral is created, where those fuel poor become increasingly reliant on benefits, including income support (Boardman, 2010). These issues display the economic impact fuel poverty can have, acting as a catalyst for societal issues, and thus indicating why the alleviation of fuel poverty must materialise.

5.2. Weighing up the economic costs.

Statistics drawn from AWARM (2011), shown in **Table 1**, when applied to the area of GM, rationalise the need for energy efficiency programmes for the 234,000 households suffering with fuel poverty in GM (using statistics from GMPA, 2016 and NewEconomy, 2016). In relation to statistics from **Table 1**, the instalment of loft insulation in all

households suffering with fuel poverty in GM are expected to cost £58.5 million, resulting in savings of £33.93 million each year. Therefore, money invested would be repaid within less than 2 years with individual fuel costs reducing following this.

	Increase in loft insulation thickness (0-270mm)
Professionally Installed cost	Around £250
Annual saving per year (£)	Around £145
Installed payback	Around 2 years
CO2 saving per year	Around 730kg

Table 1:
A table to show the cost and effect of the instillation of loft insulation (Adapted from AWARM, 2011)

Although it is clear to see that fuel poverty alleviation will be significantly costly, it is vital to acknowledge that these costs will ultimately benefit the economy in the long term, making great savings to the likes of the NHS (FPH, 2014). It is estimated that the reduction of hazards in inefficient housing could deliver £600 million of annual savings for the NHS. Moreover, for every £1 that is spent on affordable warmth, a saving of 42p is delivered for the NHS (ibid., 2014: p23). Therefore, if fuel poverty alleviation were to occur across England, savings of £1.4 billion could be made for the NHS annually (BRE, 2011). Fundamentally, action against fuel poverty can assist the development of a sustainable health and care service through the provision of interventions that simultaneously improve health and reduce the financial burden on the NHS (FPH, 2014).

5.3. What can Greater Manchester learn from SHINE, Islington?

Drawing from SHINE, Islington, we believe that a devolution of power should occur within GM. Although SHINE is only present in one borough of London, it is clear to see that through a localised approach, beneficial knock on effects have occurred within the area, ultimately benefiting Islington’s economy, with SHINE recipients collectively saving around £700,000 annually (Ashden, 2015). Therefore, this report will argue that a devolution of power should occur within GM. Thus all ten councils within GM would have increased accountability and responsibility over their residents, choosing tailored policies. SHINE provide up to 86 diverse partners within the area (ibid., 2017), promoting the collaboration of key actors, and assisting in the detecting of vulnerable groups who are prone to falling through the net (Islington Council, 2015). Key partners such as health professionals play an important role in the referral of those fuel poor (Ashden, 2015), enabling in the provision of specific and tuned approaches in order to address their fuel poor issues. We believe that policies such as this should be adopted in

GM. Ultimately, fuel poverty remains a pressing issue in the area with 20% deemed fuel poor (GMPA, 2016).

One aspect of SHINE's approach to fuel poverty alleviation examines air quality within the home for those with respiratory diseases (Islington Council, 2017). Alerts are sent to landline phones, serving as reminders to those with respiratory diseases to adopt a 'common sense approach' (airTEXT, 2017) and keep healthy during cold weather. Moreover, General Practitioners refer patients susceptible to the adverse effect of cold weather to the service (ibid., 2017), further reinforcing the connectivity between key partners involved in SHINE. This effectively deals with some of the health consequences that those fuel poor are likely to experience. This relieves strain on health services, by reducing hospital admission, and has resulted in improved relations between the health services and SHINE, due to increased acknowledgement of the home environment's impact on health and recovery (Ashden, 2015). We believe this is essential to GM, as it ensures that the ways to alleviate fuel poverty are sufficient and sustainable in the long term.

It became clear through research that transforming households to become more energy efficient is essential to alleviate fuel poverty. A number of SHINE's policies reflect this approach. An example of this can be seen through their 'Energy Doctors' programme, where households are provided with visits from experts within the field to enable sustainable reductions in both energy use and bills (Ashden, 2015). Research done by SHINE indicates that many recipients are unaware of how to be efficient with their energy use, therefore visits include 'advice on changing behaviour to cut energy use and bills, information on tariffs and signing people up for the Warm Home Discount' (ibid., 2015). Strong evidence suggests that policies such as this are beneficial as behaviour very much impacts peoples energy use. Thus, a project mirroring SHINE's 'Energy Doctors', we believe, would educate and raise awareness of ways to use energy more sustainably, reducing the impacts of fuel poverty.

This is further reinforced through advice on grants for heating and insulation within the home. Grey literature revealed the impact insulation can have on fuel poverty alleviation. Although the installation can be initially expensive, statistics from AWARM (2011) (as seen in **Table 1**) have demonstrated that initial spending starts paying dividends after approximately 2 years. Furthermore, benefits are not only confined to

recipients, but other impacts include reduction in CO2 emissions. When applied to GM, CO2 emission savings are approximated to be as much as 170,820 tonnes of carbon per year (using statistics from AWARM, 2011; GMPA, 2016 and NewEconomy, 2016). This displays the positive impact fuel poverty alleviation has on the environment if it were to be reduced, while additionally reducing the ever growing pressure on the government to meet CO2 reduction targets. In turn, this reduces pressure on the economy, and makes for a sustainable environment, since all of the above factors are inextricably linked.

5.4. Co-benefits.

The alleviation of fuel poverty not only eases pressure on the environment and health care services, but also leads to job creation within local areas. Consequently, residents amass more disposable income, resulting in co-benefits, where 'energy-efficiency investments have co-benefits for property owners, energy providers, programme participants, local communities and society as a whole' (Heffner and Campbell, 2011: p6). Therefore, positive effects can be seen on the economy, both at local and national scale.

6. Conclusions.

To conclude, results have indicated that if GM were to adopt increasingly localised approaches, ranging from SHINE'S 'Energy Doctors' to increased connectivity between local services, fuel poverty alleviation becomes a reality, whilst strengthening the economy. Through increased connectivity between different services, such as the social services, the NHS, and charities, an alleviation of fuel poverty in GM would occur. This results in positive knock on effects to services, as preventative action can take place, reducing demand across GM.

Research has shown that alleviating fuel poverty will result in benefits for GM's economy. It must be noted, however, that the complicated landscape between projected schemes and society as a whole implies that there is not a one size fits all policy. Therefore, strategies used by SHINE, Islington are appropriate and should be adopted by district councils in GM, due to their local and community based characteristics. This is good for GM's districts as it takes note of the differences between different communities, tailoring approaches to fit the specific community needs.

Strategies outlined in the findings aim to adapt to the current political climate whereby privatisation is top of the neoliberal agenda. The deregulation of the state has enhanced the need for local authorities to regulate and advise those effected by fuel poverty due to rising, unsustainable fuel prices. GM would benefit in the long term through devolution, giving district councils increasing power to represent community needs. Galitsky et al (2003) states that energy-efficiency programmes, including insulation in homes creates energy savings. We must look to improve the housing stock through creating energy efficient infrastructure whilst educating those in fuel poverty. Thus potentially reducing carbon emissions whilst simultaneously preventing the financial draining of the NHS. Subsequently, this all adds value to the economy whilst mitigating economic effects of high GHG emissions (Haines at al., 2010) that fuel poverty is currently worsening. Although fuel poverty alleviation will initially be expensive, we believe that ultimately, it will be beneficial for not only GM's economy, but for the wider population of the UK.

References

- airTEXT. (2017) 'airTEXT: Cold weather alert service in Islington Winter 2012/13' [ONLINE]. Available from: <http://www.airtext.info/news> Accessed on: 02/05/2017.
- Ashden. (2015) 'Winner case study: SHINE, Islington Council, London' [ONLINE]. Available from: https://www.ashden.org/files/case_studies/Islington%20case%20study%202015.pdf Accessed on: 01/05/2017.
- Ashden. (2017) 'SHINE, London Borough of Islington, UK Warm homes and lower fuel bills: just what the doctor ordered' [ONLINE]. Available from: <http://www.ashden.org/winners/Islington15> Accessed on: 06/05/2017.
- Blackhall, K. and Ker, K. (2007) 'Finding studies for inclusion in systematic reviews of interventions for injury prevention - the importance of grey and unpublished literature', *Injury Prevention*, 13(5): p.359.
- Bourdman, B. (2010) *Fixing Fuel Poverty: Challenges and Solutions*. New York and Abingdon: Earthscan.
- Bouzarovski, S. and Petrova, S. (2015) 'A global perspective on domestic energy deprivation: Overcoming the energy poverty-fuel poverty binary', *Energy Research & Social Science*, 10(1):pp.31-40.
- BRE. (2011) 'The cost of poor housing to the NHS' [ONLINE]. Available from: <https://www.bre.co.uk/filelibrary/pdf/87741-Cost-of-Poor-Housing-Briefing-Paper-v3.pdf> Accessed on: 09/05/2017.
- CSE. (2017) 'Understanding the characteristics of low income households most at risk from living in cold homes' [ONLINE]. Available from: <https://www.cse.org.uk/projects/view/1321> Accessed on: 10/05/2017.

- FPH. (2014) 'Fuel Poverty: How to Improve Health and Wellbeing through action on Affordable Warmth' [ONLINE]. Available from: http://www.fph.org.uk/uploads/UKHF-HP_fuel%20poverty_report.pdf Accessed on: 06/05/2017.
- Galitsky, C., Worrell, E. and Ruth, M. (2003) 'Energy efficiency improvement and cost saving opportunities for the Corn Wet Milling Industry: An ENERGY STAR Guide for Energy and Plant Managers'. Lawrence Berkeley National Laboratory: pp.1-63.
- GMPA. (2016) 'What is fuel poverty?' [ONLINE]. Available from: <http://www.gmpovertyaction.org/access-to-services/what-is-fuel-poverty/> Accessed on: 05/05/2017.
- Grubb, M.J. (1990) 'Communication Energy efficiency and economic fallacies', *Energy Policy*. 18(8): pp.783-785.
- Haas, R., Nakicenovic, N., Ajanovic, A., Faber, T., Kranzl, L., Müller, A., Resch, G. (2008) 'Towards sustainability of energy systems: a primer on how to apply the concept of energy services to identify necessary trends and policies', *Energy Policy*, 36(11): pp.4012-4021.
- Haines, A., McMichael, A.J., Smith, K.R., Roberts, I., Woodcock, J., Markandya, A., Armstrong, B.G., Campbell-Lendrum, D., Dangour, A.D., Davies, M. and Bruce, N. (2010) 'Public health benefits of strategies to reduce greenhouse-gas emissions: overview and implications for policy makers', *The Lancet*, 374(9707): pp. 2104-2114.
- Heffner, G. and Campbell, N. (2011) 'Evaluating the co-benefits of low-income energy-efficiency programmes'. In Workshop Report, Paris: OECD/IEA.
- Islington Council. (2015) 'Fuel Poverty Scrutiny Review: Report of the Environment and Regeneration Scrutiny Committee' [ONLINE]. Available from: <https://democracy.islington.gov.uk/documents/s4308/Fuel%20Poverty%20Report%20Final.pdf> Accessed on: 03/05/2017.

- Islington Council. (2017) 'SHINE referral scheme' [ONLINE]. Available from: <https://www.islington.gov.uk/environment/energy-services/shine> Accessed on: 09/05/2017.
- Kitchin, R. and Tate, N.J. (2000) *Conducting research into human geography. Theory, methodology & practice*. London and New York: Routledge.
- Liddell, C., Morris, C. (2010) 'Fuel poverty and human health: A review of recent evidence', *Energy Policy*, 38(1): pp. 2987-2997.
- Longhurst, R. (2003) 'Semi-structured interviews and focus groups', in: Clifford, N., Cope, M., Gillespie, T., and French, S. (eds.) *Key methods in Geography*: pp.117-132.
- Mahood, Q., Van Eerd, D., Irvin, E. (2013) Searching for grey literature for systematic reviews: challenges and benefits', *Research Synthesis Methods*, 5(3): pp.221-234.
- Manchester City Council. (2015) 'Indices of Deprivation 2015' [ONLINE]. Available from: http://www.manchester.gov.uk/download/downloads/id/23493/f1_indices_of_deprivation_2015_-_manchester.pdf Accessed on: 03/05/2017.
- Manchester City Council. (2017) 'Councils in Greater Manchester' [ONLINE]. Available from: http://www.manchester.gov.uk/info/100004/the_council_and_democracy/66/councils_in_greater_manchester Accessed on: 04/05/2017.
- NewEconomy. (2016) 'Greater Manchester Key Facts' [ONLINE]. Available from: <http://www.neweconomymanchester.com/media/1474/ne-key-facts-dec-15-web.pdf> Accessed on: 07/05/2017.
- Pappas, C., Williams, I. (2011) 'Grey Literature: Its Emerging Importance', *Journal of Hospital Librarianship*, 11(3): pp.228-234.
- Secretary of State. (2000) 'Warm Homes and Energy Conservation Act, 2000' [ONLINE]. Available from: http://www.legislation.gov.uk/ukpga/2000/31/pdfs/ukpga_20000031_en.pdf Accessed on: 05/05/2017.

- Shortt, N. and Rugkåsa, J. (2007) ““The walls were so damp and cold” fuel poverty and ill health in Northern Ireland: Results from a housing intervention’, *Health & place*, 13(1), pp.99-110.