

The Scale of the Challenge and the role of the Economy, Innovation and Investment in Reducing Health Inequalities

Appendix A provides background information to presentations on Health Inequalities from Paul Bollom, Interim Chief Officer Leeds Health Partnerships and the Economy from Colin Mawhinney, Head of Innovation Leeds Health Partnerships.

The Scale of the Challenge

1. The Health and Wellbeing Strategy provides an overview of the extent and impact of health inequalities in Leeds. Similarly, analysis of the Public Health England (PHE) health profiles for 2016 illustrate the areas where the city is facing significant health challenges
2. While the city is significantly better than the national (England) average in terms of statutory homelessness and violent crime, it is significantly worse in terms of deprivation, child poverty and long term unemployment, all major determinants of good health, and in levels of GCSE attainment, although the latter does show recent improvements.
3. Children's health is significantly worse than the national position in respect of smoking status at time of delivery, breastfeeding initiation and under 18 conceptions.
4. In terms of specific diseases, the city is significantly worse than the national average in relation to hospital stays for alcohol related harm, drug misuse and sexually transmitted infections. While the percentage of recorded diabetes is significantly better than the national average, it does show a slight worsening trend.
5. Life expectancy at birth of both males and females is also significantly worse than the national average, as are smoking related deaths, and the under 75 mortality rate for cardiovascular disease and cancer. Similarly differences in life expectancy between different areas are ranked amongst the highest in the UK with. For example, a 10 year difference between Harewood and Hunslet.

The Leeds Health and Wellbeing Strategy 2016-2021

6. The Health and Wellbeing Strategy, in its core vision, commits partners to the reduction of health inequalities and specifically identifies a strong economy with quality, local jobs as a key contributor to its delivery. The strategy also recognises the need to 'maximise the benefits from information and technology with the potential to make a much larger impact'. Whilst much has been achieved to realise this potential since the launch of the strategy much remains to be done before the City can fully claim to have realised its ambition. The keys means to ensure delivery of these priorities is to ensure they are integrated and inform investment across all sectors and services in Leeds, generally, through the Leeds Economic Growth Strategy and specifically through the Leeds Digital Strategy.

The Leeds Economic Growth Strategy

7. The current growth strategy (2011-16) identifies health as a major contributor to the city's economy with the potential to make a much larger impact. It includes a statement of intent to pursue opportunities and priorities to deliver growth and get Leeds working to its fullest capacity including the Health Economy based on its 'assets'. The strategy informed the development of partnership activity which helped to drive investment and create jobs and these are summarised in Appendix D.
8. A new Leeds Growth Strategy, to be launched 2017, will run from 2017 - 2020 and will set out the City's ambitions and framework to support economic growth. It will identify main sectors including health and care and locations for growth, alongside regeneration, housing, skills, transport and infrastructure opportunities. Growing the economy and increasing productivity have many benefits by providing prosperity for people, more money for public services, reducing unemployment and increasing wages. This will be dependent upon the ability of the city to attract both innovation and the investment needed to support it.

9. The attraction and nurturing of both innovators and investment in health and care takes place in an environment which is often competitive and requires a proactive, place based and partnership driven approach to bringing funding to where it is most needed.
10. The skills and ability to seek and secure funding typically requires specialist knowledge and skills specific to a sector. In health and care in Leeds these skills have been dispersed across partner organisations enabling the city to compete for smaller opportunities but, until recently, hampering the delivery of larger cross cutting funds from both public and private sector sources. This is changing, particularly, with the establishment of the Leeds Academic Health Partnership (LAHP, Appendix C) and also with increasing interest from private sector innovators and investors in Leeds as a place to do business. Investment from the private sector has much to bring, directly, to benefit health and care and to tackle health inequalities in the city. A selection of pre-recorded video interviews with innovators and investors describing their work to grow their business in Leeds and their contribution to the reduction of health inequalities in the City will be included as part of the presentation.
11. Local companies such as Brandon Medical, a manufacturer of surgical theatres have through expansion, in Morley, brought jobs and apprenticeships. RSL Steeper, a manufacturer of a range of technologies from prosthetic limbs and eye gaze technology, in Hunslet have developed products and services supporting independent living for some of the most vulnerable members of our community. Similarly Depuy Synthes having recently invested £24m in a new product development facility in Beeston has secured jobs, created apprenticeships and worked with the local community and schools on a range of issues in addition to working with the University of Leeds to research the next generation of solutions for hip and knee replacement.
12. Work also continues to attract investors from outside the city to base their operations in the city. Many of these are attracted by the strength of existing capabilities such as informatics and analytics developed through home grown talented companies such as TPP and EMIS, also major providers of jobs and services supporting communities. Engagement with new investors therefore includes broader conversations about how they can support work with the wider community and third sector such as Leeds Community Foundation. It also includes support through local bottom up initiatives to incubate and grow start-ups and smaller SME's (small and medium-sized enterprises) in and around our communities through the Digital Strategy and engagement through local platforms such as the Open Data Institute and Future Labs.
13. The combined purchasing power of partners and other anchor institutions based in around Leeds can provide, where appropriately applied, powerful leverage for these conversations with both innovators and investors. A recent report by Joseph Roundtree Foundation, 'Maximising the local impact of anchor institutions case study; Leeds City Region'¹ found that ten anchor (public sector) institutions in the Leeds City Region (LCR) spend £1.4 billion a year on procuring goods and services; just four anchors in the study – Leeds City Council, Leeds Teaching Hospital NHS Trust, University of Leeds and Leeds Beckett University – collectively employ 56,500 workers, the vast majority of whom live and work in the Leeds City Region (LCR). The disposable income that this generates makes a major contribution to the demand for goods and services in the LCR economy. The report adds that with a collaborative, systematic approach, there is the potential to achieve so much more. This is true for health where collaborative approaches to the procurement of IT and digital capabilities are leading to broader engagement to address jobs, training and better connections for citizens and their communities.
14. Having set the scene, in terms of the challenges of health inequality in Leeds and the broader context of growth, innovation and investment required to tackle it, the discussion can turn now to specific initiatives focused on innovation and supporting system change in Appendix B.

¹ Maximising the local impact of anchor institutions: a case study of Leeds City Region; David Devins, Jeff Gold, George Boak, Robert Garvey and Paul Willis (JRF16th Jan 2017): <https://www.jrf.org.uk/file/49854/download?token=hsuNtCDC&filetype=full-report>

The Leeds Digital Strategy and its approach to reducing health inequalities

1. The Leeds Digital Strategy takes a system wide approach to investment in infrastructure supporting the economy and services within it. The strategy starts with health and wellbeing as the foundation from which other things can build. Digital technology and information is a critical enabler for both growth and its distribution to secure outcomes supporting a reduction in health inequalities. A key strand of the strategy, the 'One City' approach, seeks to integrate technology provision to the delivery of Health and Care services and has at its core a commitment to digital inclusion in the context of neighbourhoods and communities.
2. The architecture of infrastructure supporting the delivery this strategy has participation by citizens and service users embedded in delivery of digital services. The success of the strategy will depend on continued progress to broaden and deepen digital access provided to both citizens and practitioners, through the Leeds Care Record. The strategy has in turn helped to shape Leeds Digital Road map, which describes a 5-year digital vision, a 3-year journey towards becoming paper-free-at-the-point-of-care and 2-year plans for progressing a number of predefined 'universal' capabilities. The key programmes emerging from the strategy and road map reflect this emphasis on digital inclusion and its importance in reducing health inequalities and will be included in the presentation to Health and Wellbeing Board.
3. The strategy fully recognises the extent of digital exclusion in the city and the risk this poses to both the wellbeing and economic prospects for those affected. Research findings provided by the city's '100% Digital Leeds' initiative indicates that 13% of adults in Leeds have never been online, and 23% of the adult population of Leeds lack basic digital skills equating to approximately 90,000 people. This has important implications for vulnerable communities. Increasingly transactions for services provided by both private and public sector are provided online and the impact of digital exclusion threatens to reduce timely access to services at a level and to a quality compared to those enjoyed by service users with digital access.
4. These people are also more likely to be disabled, unemployed, on a low income or have low literacy and numeracy levels. These are the very people who would most benefit from being digitally included. The main factors given by digitally excluded people as to why they are not online are:
 - Lack of online skills/confidence
 - Cost of equipment and broadband access
 - Lack of interest/motivation
5. Leeds' libraries offer free wifi at 35 locations, many of which are co-located within community hubs, plus there are almost 90 other public buildings, including town halls and community centres that are wifi enabled, allowing users of mobile devices to get online without charge, and for those without the skills or confidence there is access to free training and support. However, the research indicates that more needs to be done to raise awareness of these free services, with only 3% of Council tenants recognising that this is available to them, despite it being freely available to all. The 100% Digital Initiative is addressing these issues.
6. A key vehicle for reaching out to and engaging with communities in Leeds is the MHabitat Project. The Mhabitat Project is hosted by and is part of the NHS and supports digital innovation in the NHS and wider public sector from early stage discovery through to strategic planning. It is committed to widening participation in digitally provided wellbeing services and empowerment and has been at the forefront of work to increase digital literacy for both health and care practitioners and communities. An overview of their work to promote people driven innovation and digital inclusion will be presented to Health and Wellbeing Board and includes;

- Digital inclusion for citizens
- Digital practitioner – developing the confidence and skills of health and care practitioners
- Co-designing digital technologies with citizens and practitioners
- Digital innovation pathway – from early stage discovery to deployment and adoption
- Research and evidence.

7. Taken together good progress has been made to establish the city as a national leader in digital inclusion, but much remains to be done to increase the scale and pace of take up of digital capabilities amongst our more vulnerable and deprived communities. It is therefore critical that the city continues to build its success in bidding for and attracting the further investment that will be key to meeting the scale of the challenge. This requires a joining up in a partnership approach that embraces both citizens and communities and the research and bidding expertise available to persuade funding providers that Leeds provides the best place to pilot, test and scale solutions that effectively meet need, support wellbeing and reduce inequalities in this digital age.

The Leeds Academic Health Partnership

1. This paper provides an outline description of how research, innovation and higher education assets in Leeds can help in tackling health inequalities, primarily, through the recent establishment of the Leeds Academic Health Partnership (LAHP). This is intended to support a presentation summarising the purpose and emerging projects of the LAHP to the Health and Wellbeing Board. It includes a case study on the Centre for Personalised Medicine and Health which will be launched later in 2017.
2. The LAHP was formally established in November 2015 and represents a crucial new development in delivering the city's commitment to 'good' growth. The LAHP will support positioning of the city to ensure alignment with both regional and national priorities of government and ensure the benefits are available for our local population. The focus of the opportunity will be to accelerate the translation of leading edge research and education to improve health outcomes, reduce health inequalities and drive the growth of our health economy. By drawing the City's academic, health and science assets into a new partnership, the LAHP, will bring the City's universities into the 'Leeds Plan' for partnership driven, citizen centred transformation to deliver funding, investment, education, skills and technology needed to drive economic growth and deliver its ambition to be the best for health in the UK.
3. The LAHP plans to utilise academic assets to support the health and care system to reduce inequalities in health. The LAHP can, for example;
 - Support the health and care system to develop an analytics-based insight and an understanding of the drivers and determinants which create and perpetuate health inequalities, and then – through the research and subsequent application of that research – identify the actions that can be taken to reduce levels of inequality whether at a personal level – such as the disparity in life expectancy across the city – or in the wellbeing of communities.
 - Play a key role, in identifying opportunities and providing a welcoming environment to encourage development of new businesses which will have a positive impact on improving health and creating jobs.
 - Offer the opportunity to apply additional skills, knowledge and talent hosted in our universities to extend the benefits which can be realised through the implementation of the Leeds Care Record, not only locally for Leeds, but more widely across the region and the UK by;
 - building a framework upon which to develop a seamless and sustainable workforce, one which is organised around the public and patients. The basis of this is the Leeds Health and Care Academy. The Academy, the first of its kind in the UK, will stimulate a more efficient health and care system and ensure that a more streamlined experience for service users flourishes.
 - supporting the development of an evaluation and modelling service for health and care to enable quicker scaling and application of benefits from innovation.
 - formalising ways to ensure that patients and the public are both involved and engaged with the work of the partnership by using our partner networks to gain feedback and input from patient groups. Over the coming months, the opportunities for the people of Leeds to share their thoughts and experiences with us will be expanded. This will shape the projects and programmes the LAHP supports across the city.

Case Study; The Leeds Centre for Personalised Medicine and Health: Building on the recent success of the city in being selected as an Innovation UK Catapult Centre of Excellence for Precision Medicine in 2015 the LAHP is developing a robust, multidisciplinary, cross sector, collaborative, place based approach to promote personalised medicine and health.

The CPMH's working definition of personalised medicine and health is:

“a process by which the decisions made about health and care by patients and the public, supported by clinicians, are enriched and improved by the availability of the best possible information, technology and evidence.”

For example, this might be information available to the clinician about the genetic predisposition of individuals, which allows for more accurate stratification of patients – such as, the introduction of a newly developed diagnostic test which allows us to identify the best treatment regime for a patient first time, thereby avoiding wasteful treatment and unnecessary side-effects.

Or it may be involve giving the public and patients more access to tools and control of information themselves – e.g. through allowing them to monitor and manage their own conditions at home/in community settings, thereby reducing the need for in-patient and out-patient hospital episodes.

The new centre will support the city to rapidly develop the new personalised innovative technologies including In Vitro Diagnostics, Imaging modalities, Decision Support Systems, Wearable devices, Digital solutions and will engage innovators and investors to enable the delivery of the next generation of patient centred care.

The programme of work for the new centre is being developed in the context of LAHP aims including the reduction of health inequalities. It should be noted that the most significant gaps in population health including cancer, CVD and COPD disproportionately affect communities residing in deprived neighbourhoods of the city. The new centre offers the potential to matching our population's health and care needs with excellent science and innovation. The official launch will occur later in 2017.

Concluding Remarks

The causes and drivers of health inequalities in Leeds are complex and these often develop over long periods of time. Similarly many of the solutions to address cause or reduce or remove the barriers to inequality require sustained investment in partnerships and will take several years to deliver the promised benefits of a prosperous but compassionate city. The approach taken to establish the LAHP recognises the size of the challenge and the importance of building on interdependency between both sectors and partner organisations. This includes the need to build trust and robust delivery arrangements which can be either targeted or more widely distributed where this is required.

The LAHP has therefore prioritised in its first full year of operation the need for new governance and management systems in support of accountability, effective decision making and delivery in addition to initiating and incubating its first phase of projects. The essential ingredient of internal progress this year has been the strengthening of core capacity and capability across our priority work areas, ensuring we have the right skills in place to lead and deliver our ambition going forward. As a result, the pace and momentum needed to deliver these projects at a scale necessary to impact health inequalities can be expected to build throughout 2017 and 2018 to deliver positive outcomes of lasting significance in the reduction of health and care inequality in Leeds.

Review of progress since the launch of Leeds Economic Growth Strategy 2011

1. The Economic Growth Strategy 2011 included a statement of intent to pursue opportunities and priorities to deliver growth and get Leeds working to its fullest capacity including the Health Economy based on its 'assets'. An overview of significant investment in Health and Social Care investment from both public and private sector is provided below;
2. **Private Sector**
 - **Avacta** - (Former University of Leeds) expansion on site (Thorp Arch)
 - **BJSS** successfully deliver SPINE 2 and expand in Leeds
 - **Brandon Medical** expansion and relocation to Morley in Leeds
 - **Depuy Synthes** major consolidation and expansion of the Beeston site with the development of a new product development and research hub
 - **EMIS** - major expansion including acquisition and development of a new HQ at Rawdon
 - **Escubed** - relocation and expansion in Thorp Arch
 - **Rosemont Pharmaceuticals** - expansion in Holbeck, following acquisition by Perrigo
 - **TPP** - major expansion and development of a new HQ in Horsforth
 - **Tissue Regenix** expansion and development of new site in Swillington, Leeds
 - **RSL Steeper** expansion and development of new R&D /Demonstrator Lab
 - **Elida Gibbs** - plans for expansion on existing Leeds Site
3. **Universities**
 - MRC and ESRC grant awards enable establishment of Leeds Institute of Data Analytics.
 - EPSRC Awards fund the establishment a Centre in Innovative Manufacturing in Medical Devices.
 - Leeds Beckett University open the new Clinical Simulation Training Suite.
4. **Public Sector**
 - NHS Leadership Academy established and expands at its new base in Leeds City Centre.
 - Creation of the Leeds Care Record places the City in a leading position in the development of Electronic Care Records in the UK.
 - NHS Digital expands its workforce based in Leeds City Centre.
 - Leeds City Council relocates and expands Assisted Living Leeds.