Mapping the Health and Care Enterprise Sector in Greater Lincolnshire

Resources, Opportunities and Constraints

Produced for Greater Lincolnshire Health and Care Enterprise Board

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1. Introduction

1.1 About this Report

Greater Lincolnshire LEP, via the Health and Care Enterprise Board, commissioned the University of Lincoln International Business School to support the development of a Health and Care Enterprise Cluster Plan for Greater Lincolnshire. The commission has been structured around two phases: (i) mapping the current health and care enterprise sector in Greater Lincolnshire to identify gaps, opportunities and distinctive traits to frame a cluster plan and (ii) the development of a cluster plan for the current health and enterprise sector in Greater Lincolnshire.

This report presents the findings from ***first phase of this work*** research. It aims to:

- map existing enterprise and innovation assets;
- review and identify mechanisms and barriers to enterprise development within the sector;
- identify distinct opportunities for Greater Lincolnshire to build upon;
- present future opportunities for enterprise development.

The development of this work will provide the focus for the Health and Care Enterprise Board priorities moving forward.

1.2 Health and Care Enterprise Cluster Plan

The Health and Care Enterprise Cluster Plan is a long-term piece of work to identify areas of opportunity within Greater Lincolnshire. The aim of the plan is to unlock areas for enterprise and innovation clusters that will compliment and bolster the area's existing health and care structure. The work will help focus the agenda of the Health and Care Enterprise Board via the development of a plan which is squarely aimed at establishing the distinct opportunities Greater Lincolnshire presents to enterprises in the Health and Care space, and how these can be capitalized upon by identifying and removing barriers, enacting enablers, and targeting specific opportunities in terms of enterprise, innovation and inward investment.

1.3 Health and Care Enterprise Cluster

This research supports the core activity of the Health and Care Enterprise Board as set out in its Terms of Reference:

> "*The Health and Care Enterprise Board takes a lead on strategy development for health and care sectors in Greater Lincolnshire, and its aim is to shape and influence the future Heath and Care Enterprise in the LEP area. This includes reviewing and framework progression of the current and long-term outcomes and opportunities to the Health & Care system approach, and for bringing forward the transformation of new solutions which support people to live well for longer in rural areas*"

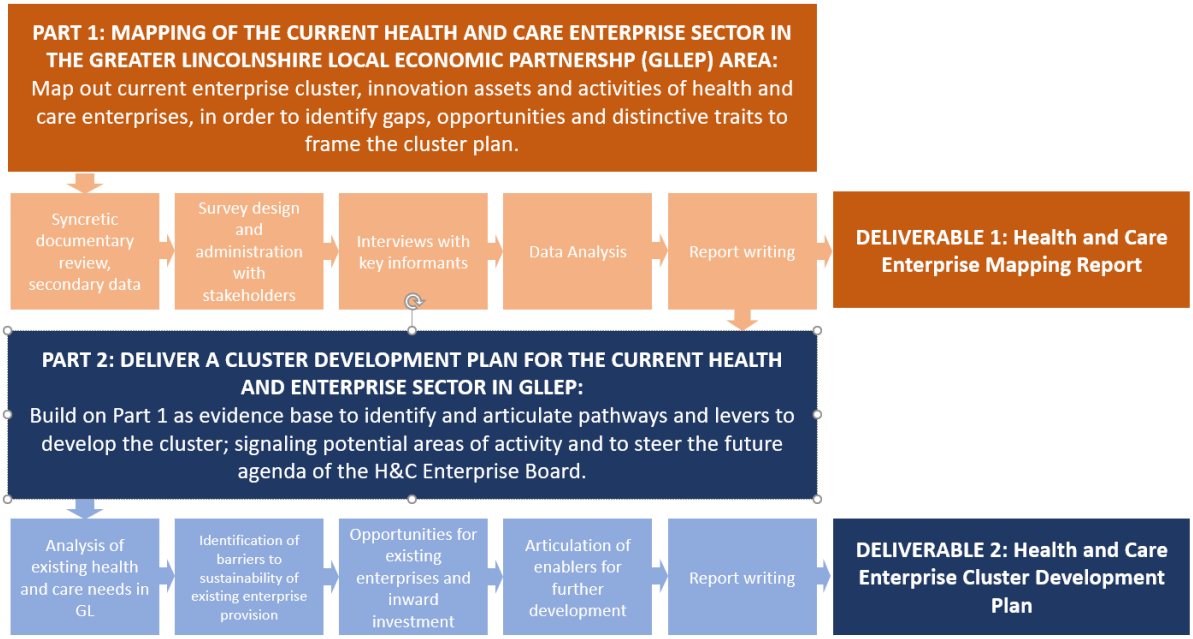
The overall outcome of the work sits in line with the scope of the Board as further articulated in those Terms of Reference:

- Integrating Health & Care better into the structure of the LEP, looking at both improving the economic input around innovation plus Research & Development, as well as improving efficiency and economic output of the sectors through research into improvements in services
- Developing a better, and more level playing field for innovative collaborations, which can allow both Health & Care to play to their strengths
- Articulating a better economic argument between cost and value, when dealing with the Health & Care agenda
- Creating the environment in which Health & Care innovation can create better local health outcomes

1.4 Research Approach

The overall structure and process for this research is summarised in Figure 1. This report presents the findings from the first phase (in orange), which are used to inform the second stage of the commission, the delivery of the cluster development plan (shown in blue).

Figure 1: Approach for Health and Care Enterprise Cluster Plan Development



The first stage of the research involved a range of data collection methods, including:

1. **A Syncretic Documentary Review**: a broad review of existing studies to ensure the mapping builds on previous work related to the Greater Lincolnshire health and care sector. This includes existing sector analysis, strategic plans for the sector and key organisations, and related research and evaluation studies.
2. **Data analysis**: analysis of the Business Register of Employment Survey (BRES) to understand the geographical distribution and recent trends in the number of jobs by health and care subsectors.
3. **Key informant interviews**: qualitative interviews with stakeholder organisations, both within and outside the sector. These have focused on understanding interdependencies between organisations in the sector, implications for addressing key challenges for rural health and care delivery in Lincolnshire (e.g. considering rurality, ageing population) and gaps in provision and/or partnership working.

2. Document Review

2.1 Purpose and approach

The document review has been undertaken to support the mapping of the health and care enterprise sector. It draws on existing data and studies of the sector provided by stakeholders in the health and care sector and identified by searches. The review highlights key themes and insights to enable dialogue and inform the production of the cluster development plan in Greater Lincolnshire. The database of documents used in the review is set out in Annex A, and these documents are referenced throughout the findings set out below.

2.2 Key Findings

A thematic analysis of the documentation has been used to develop a set of principles to inform the design of the cluster development plan. The "design" principles are:

- Strategy
- Local context
- Healthy and active ageing
- Innovation
- Enabling environment
- Skills
- Community and collaboration
- Risk

2.2.1 Strategy

The strategic objectives for the development of the cluster of health and care businesses must be aligned with, and contribute to, the broader ambitions for improving the economy and health of Greater Lincolnshire.

Economy

The current size of the Greater Lincolnshire Economy is £20.7bn[18-3]. The overall ambition of the Local Industrial Strategy is to grow the local economy to £24bn (15% growth) by 2030[18-3]. Health and Care is a key sector, generating £2bn economic output which represents 8% of the area's economic value[6-6]. The growth target of 15% would represent adding £256M to the economic output of health and care. It is envisaged that the development of a dynamic and growing cluster of health and care businesses would provide one of the vehicles for achieving this growth.

Health

The cluster of health and care businesses must also be developed so that it makes a significant impact on health outcomes. The primary health challenge in the region is the ageing population and a sustainable health and care system means more people are able to experience 'living well for longer'[19-29]. The cluster also needs to make an impact on the health inequalities that are exacerbated by the area's rurality[19-57].

Market leader

There is also a strategic ambition for the health and care cluster to be developed to a level where it recognised as a market leader in rural healthcare and better ageing[13-16]. Central to this would be the development of new and innovative heath and care services that meet the particular challenges of rural and coastal communities[18-7].

2.2.2 Local Context

The development plan for the cluster of health and care businesses in Greater Lincolnshire must take full account of the specific nature of the local context. The nature of the region, in terms of geography, demographics and economic infrastructure, makes it a particularly challenging environment for business innovation and growth. The delivery of health and care services within the Greater Lincolnshire context is potentially problematic for legacy delivery modes and innovative solutions will be required to address these challenges. The development of the health and care cluster will therefore be both enabled and inhibited by wider structural factors[9-26], including wider policy and political decisions[9-12].

Rurality

Greater Lincolnshire is a mostly rural area [18-3] with a low population density and it is one of the most sparsely populated LEPs in the national context[18-9]. Rural residents are disadvantaged compared to those living in urban areas and the provision of services, particularly in health and care, are poorer in rural areas[29-6]. The characteristics of rural health and care provide an explanation for the poorer services experienced by residents in these areas. These pertain to the ageing population, patterns of mental health, extent and shape of commerce, distance from services, the nature of housing stock, and cultural and attitudinal differences[29-6]. Health inequality for rural communities "is exacerbated by the fact that rural local authorities have less to spend per head of population on the provision of care" [18-36].

Older population

The population in Greater Lincolnshire is older than the UK average[18-7] which is typical for a rural area. However, Greater Lincolnshire is also a coastal area, and this is an additional factor that contributes to the area having an older population. The sustainability of the health and care cluster will depend on how effectively the problem of delivering services across an older and sparsely populated community is addressed.

Health

The rurality and age demographics of Greater Lincolnshire leads to poorer health and greater health inequality compared to the UK average. Health outcomes are determined by wider contextual aspects i.e. economic, social, and physical[9-11] and the 'place-based' [9-10] factors in Greater Lincolnshire are a primary cause of health inequality. To what extent should the strategic aim of a health and care cluster be to make an impact on these structural or place-based factors?

The priority health topics that need to be addressed within the health and care cluster plan are Obesity; Mental Health and Emotional Wellbeing; Carers; Dementia; Autism; Housing and Health; and Physical Activity[3]. Progress in improving health in the region has slowed or reversed in recent years which adds further impetus to the need to develop better health and care services. For example, the Years Living with disability (YLD) figure is increasing quickly in the area[14-8].

Lower-income people living in rural and coastal areas also have poorer health due to 'deprivation amplification' [9-10].

Economy

The plan to develop a thriving and sustainable cluster of health and care businesses must also take account of, and address, the distinct economic challenges that businesses face in the region:

- *Poor productivity:* Widening gap between Greater Lincolnshire and the UK (22.8% in 2017) [18-14.] Performance in health and care sector at a national level outperforms the local level[19-40].

- *Lack of skills:* high job vacancies and lack of skills[18-3, 18-8]
- *Insufficient infrastructure*: lack of business growth infrastructure [18-3]
- *Lack of Inclusion:* lower prosperity and growth in rural and coastal locations[18-9]
- *Low wages:* 32% of employees are paid below the real living wage; health and care are major low productivity employers. [18-3]

2.2.3 Healthy and Active Ageing

People in Greater Lincolnshire are living longer, with this trend expected to continue over the next 20 years, and health and care need inevitably increases as people get older. Therefore, a preventative approach is required based on delivering solutions that will improve health and prevent unsustainable growth of demand for health and care. Healthy and active ageing must be a primary driver for developing the cluster of health and care businesses and the existing market needs to be developed to have a greater focus on healthy and active ageing.

Demand

Demographic changes in the Greater Lincolnshire area mean that there will be a growth in demand for health and care to meet the needs of an ageing population. The number of people over 75 is expected to have risen by 46% between 2014 and 2025[18-35]. By 2035 there is expected to be a 46% increase in the number of people over 65 with a limiting long term illness[18-36].

An ageing population leads to a potentially higher Burden of Disease[14-5] and this could lead to unsustainable demand for health and care services. The strategic goal is to take actions that will reduce this burden of ill-health. This can only be achieved by addressing the underlying causes of ill-health i.e. the behavioural, metabolic, and occupational risk factors[14-6].

Healthy and active ageing

A strategy for healthy and active ageing aims to improve healthy life expectancy[14-3] by keeping people fit and healthy for longer.[14-5] Behavioural risks are the most significant contributor to ill-health (>50%)[14-3] with 14 years higher life expectancy for healthy practices such as no smoking, moderate drinking, healthy diet, and physical activity[9-10]. Healthy ageing places equal importance on mental health, and it is a priority within the strategy to improve mental health issues and improve emotional resilience[20-4].

The nature of the cluster of health and care businesses, and the services they deliver, must be aligned with this strategy of prevention and early detection[14-22]. The overall objective is to improve health and well-being, not simply to grow the size of the sector as an end in itself. The health and care business cluster represents an important element in the health ecosystem for Greater Lincolnshire[9-10].

When do healthy lifestyles have to be adopted to make a difference in healthy ageing? Does healthy ageing depend on decisions made at a younger age?

Employment

The development of the cluster of health and care business will also increase the requirement for staff and opportunities for employment. Productive and satisfying employment across a more diverse range of ages[18-8] will also contribute to healthy and active ageing. The development of the cluster provides an opportunity to draw on the knowledge, skills, experience of older people in the community. One of the goals is for 1 million more people aged 50 to 69 to be in fulfilling work by 2022[18-47].

2.2.4 Innovation

The strategic objectives for healthy and active ageing can only be met through innovation and the introduction of new models of care. Greater Lincolnshire currently faces a challenge around low innovation[18-3] and the development of the cluster will need to address this problem in its design

New models of care

New models of care will be required in order to better meet the particular health and care needs of Greater Lincolnshire as a rural place[29-8]. Community involvement in co-producing the new services will be vital to the success of the development plan. This will increase the likelihood of new services being fit for purpose and understandable by the end user[3-24]. Services can fail because of a lack of understanding of issues in rural communities, a risk that can be mitigated by greater community involvement in the development of new services[29-12]. Community-based health provision e.g. Health in the High Street [28-5] will play a central role in delivering healthy and active ageing strategy.

New models of care and innovative solutions can also address the problem of low productivity and the specific challenges of delivering efficient services to a rural and ageing demographic[18-35]. The higher productivity that could be achieved through innovative care solutions[18-7] would also feed through into higher wages. Higher wages would also contribute to addressing issues of recruitment and retention. Greater efficiency will also be achieved by maximising the utilisation of existing assets. The cluster development plan will therefore need to be well-aligned with and draw on the outputs from the JSAA/JSNA[20-1].

Technology

Technology will be central to this innovation and the development of new models of care. The health and care sector is becoming increasingly digitalised and this offers great potential for efficiently and effectively delivering services to rural and dispersed communities. An example of this is patient interaction through digital channels, such as e-prescribing[19-41]. Digitisation has also enabled the generation of a wealth of data, but the challenge remains as to how this data can be utilised for the further benefit and development of health and care services. The community must be involved from the outset in the development of new data-driven services because this will ensure user-focus and community buy-in[3-24]. Community led and collaboratively developed solutions are more likely to succeed[3-2].

There are significant barriers that need to overcome in order to achieve effective roll-out of new and existing technologies. Sufficient broadband coverage and will be vital for the cluster development plan to succeed, especially in delivering new health and care services into rural and coastal communities[20-3]. Problems with data sharing across partners is also an issue that needs to be addressed[3-11].

The new ways of working introduced during Covid-19 also provide opportunities for new service delivery models, remote and flexible working[3-5].

Digital divide and digital poverty

Older and more sparsely populated areas, such as Greater Lincolnshire, are also disadvantaged in terms of their ability to access and utilise digital services. This leads to a 'digital divide' and a form of 'digital poverty'[3-9]. Developing and rolling-out new models of care will need to have fair and equitable access as one of its guiding principles. This is particularly the case for the vulnerable and hardest to reach.

2.2.5 Enabling environment

A successful cluster will require the creation of a supportive business environment for entrepreneurs, micros and SMEs[18-57, 18-9].

Finance

The growth of the health and care enterprise cluster will require significant investment, both for establishing new businesses and growing existing businesses. The cluster development strategy will need to identify the scale and sources of funding that will be required to realise this ambitious strategy. This will include making more efficient use of existing public resources[19-29]. The strategy is particularly focussed on innovation and technical solutions so this will require considerable capital investment.

Health and care businesses, and start-ups, will need support in how to access existing grants and sources of funding e.g. Growth Hub grants[18-57], Innovate UK Funding for Ageing Society[18-42], Towns Fund, Future High Street Fund and Local Growth Funds as catalysts [18-9]. The businesses will also need support, guidance and advocacy to access affordable bank loans and other forms of external financing.

Build on existing assets and network

The Health and Wellbeing Board (HWB) will play a key strategic role in developing and maintaining the assets that underpin and enable the successful growth of the health and care business cluster. The development plan needs to be aligned with the Joint Strategic Needs Assessment (JSNA) and the Joint Strategic Asset Assessment (JSAA) [21-1]. This will ensure that new business development is focused on the areas where solutions are required, targeting investment, creativity and effort where they will have the most impact on health and wellbeing. This type of work is already underway, for example with the Connect to Support Lincolnshire website [20-1].

Health and care businesses will also need equipment and premises. Maximising the use of existing assets will be essential to make it viable for new business to become established. This will include maximising the use of existing community assets[15-8].

Resilience

A support infrastructure will be required to ensure businesses in the health and care are able to meet the challenges and problems that they will inevitably face. This will involve actively supporting and enabling innovation and creativity, for example by building on existing activity such as that associated with the Midlands Engine[13-16, 18-3].

The businesses will also need to be supported in creating safer and healthier workplaces[23-9]. The current problem of recruitment and lack of skills can in part be addressed by improving job satisfaction and morale. New models of flexible working and job design will also present opportunities for improved work-life balance and enhance recruitment[23-35].

2.2.6 Skills

A successful cluster of health and care businesses will need to be able to recruit and retain people with the required skills. There are significant challenges in this area and workforce planning should be a key part of the cluster development plan. Greater Lincolnshire faces challenges with low innovation and human capital[18-3]. These work force challenges will require place-based solutions[29-12].

Recruitment and retention

Recruitment and retention are critical issues and a failure to address them will prevent the successful development of the cluster of health and care businesses. The growth of the sector will require more staff but there are already major problems in the current sector around these issues:

- 3,200 vacancies in the sector (as of 12/11/21) [6-7]
- 10% of all labour market vacancies in Greater Lincolnshire are for health professionals currently[6-7]
- There are fewer NHS workers per head of population in rural areas due to recruitment and retention issues, which is a major driver of rural health inequalities [18-35]
- Health and care workforce faces 13,000 vacancies over coming years [18-36]
- Recruitment and retention of health and care staff in rural areas is particularly challenging [29-48]

Skills shortages

Addressing the skill shortage is also key to the successful delivery of the cluster development plan:

- Over 20% of Greater Lincolnshire's hard-to-fill job vacancies are due to skills shortages [18-49]
- As a proportion of the population, Greater Lincolnshire has fewer people with NVQ level 4 qualifications than New Anglia, the East Midlands and the UK [19-41]
- Fewer NHS staff per head in rural areas [29-43]

2.2.7 Community and collaboration

The development of successful health and care cluster will involve working collaboratively with the community and a range of partners. Historically there has been a lack of trust across the stakeholders and this has stifled innovation and the effective deployment of resources[3-2]. The approach to delivering this plan will need to be based on the values of community and collaboration.

The Community

It has been widely recognised that development and implementation of health and care should fully involve the community at all stages:

- Consult with citizens and communities [8-23]
- Engage citizens to regain trust [3-2]
- Community viewpoint rather than just professional viewpoint [3-2]
- Local views and aspirations, build on existing strengths
- Community knowledge and aspirations [20-4]
- Better understanding of the community assets. E.g. practical skills and knowledge of residents [20-2]
- Interventions need to be co-produced. Makes them more likely to succeed [3-6]
- Asset-based community development [20-1]
- Build local support networks and services [20-2]
- Funding to communities for maintaining and improving assets [15-4]
- Community-centric roles – need to understand these better [15-4]
- Potentially large bank of volunteers in rural setting [29-50]
- Community owned businesses [28-19]

Collaboration

There is a recognition that the development of new and innovative health and care solutions will require collaborative working across a range of partners[20-2]. However, there is still too much 'silo' working and partnership working must improve[15-4, 3-5]. The perennial nature of the highlighting of this issue is testament to addressing it successfully being easier said than done! The cluster development plan must also include a recognition of the need to invest time and resources in actively building collaborations and partnerships.

Networking with existing initiatives

Collaboration also involves an active engagement with existing projects and organisations, for example:

- The Centre for Innovation in Rural Health at Lincoln University and the National Centre for Rural Health & Care (NCRHC) [13-16]
- Lincoln Institute for Health – 'bench to bedside' and 'cell to community' approach – underpinned by the concept of the Lincoln Living Lab [19-57]
- The Centre for Ageing Better has selected Greater Lincolnshire as its strategic rural partner [18-47]
- East Midlands Academic Health and Science Network which aims to extend the opportunities for business growth and development of the estimated 2,500 health and care businesses based in Greater Lincolnshire[18-36]
- Greater Lincolnshire will also develop links with Be the Business to develop targeted programmes for micro and family owned businesses with potential to grow[18-9]
- 'Made Smarter' pilot that will drive industrial digitalisation across Greater Lincolnshire and beyond[18-9]
- Greater Lincolnshire Innovation Council [18-43]
- 'Communities of the Future' to meet the needs of an ageing population. This will explore improved physical and digital connectivity to local services and transformation of health and care services[18-7]

3. Sector Analysis

3.1 Introduction

This section provides an analysis of employment in the health and care sector in Greater Lincolnshire and Rutland. Using the Business Register of Employment Survey (BRES), it provides an overview of the size, distribution and growth of the sector, and seeks to highlight emerging activities and potential gaps. The health and care sector SIC codes are the same as those used in the Greater Lincolnshire LEP's Local Industrial Strategy. Analysis of SIC codes for activities that relate to or support the health and care sector are also included but as a separate grouping. The full list of SIC codes is included in Annex 2.

3.2 Headlines

- Health and Care accounted for 66,450 jobs across Greater Lincolnshire and Rutland in 2020.
- The sector is strongly represented, accounting for 14% of employment against 13% nationally.
- Hospitals account for 30% of jobs in the sector but employ a lower proportion of the workforce than nationally, perhaps reflecting the relatively small/less specialised nature of local hospitals.
- Some of the most highly represented sub-sectors (by Location Quotient) are focused on care, including day care and home help for the elderly, and medical nursing homes. A (comparatively) high proportion of employees are engaged in care for those with learning disabilities, mental health and substance abuse, as well as children's homes and homeless shelters.
- Local sector employment growth has outperformed the rate nationally, at 13% growth between 2015 and 2020 compared with 6% across England. This growth has been underpinned by hospital activities, mirroring the expansion of hospital employment nationally.
- There is a shift in the focus of care sector employment, with a loss in residential-based care, other than in medical nursing homes, and an increase in care delivered to the home and through day care centres.
- Employment in social work activities without accommodation (such as counselling and welfare support delivered by charities and the public sector) has also demonstrated strong growth perhaps reflecting expansion of the community sector in this area.
- Growth in social work activities in Greater Lincolnshire is at odds with the national trend, where these activities have declined or remained static.
- Analysis of activities that relate to or support the sector reveals a small but growing workforce around wholesale of pharmaceutical goods (focused on North and South Kesteven). Sport facilities and activities are highly represented and growing strongly. Employment in passenger transport (such as bus services) has increased but there has been decline in taxi operations.
- The analysis did not reveal significant employment in biotechnology research, with fewer than 25 jobs identified across the area. Further primary research is therefore needed to understand developments in this activity.
- Growth in health and care sector employment is evident across all local authority areas, particularly Rutland, West Lindsey, South Holland, South Kesteven and Lincoln, but excepting East Lindsey where it has declined by 4%. This is a concern, given the challenges of healthcare delivery in the rural/coastal area of East Lindsey and its high retiree population.
- As expected, employment in the health and care sector is strongly concentrated in urban centres where hospitals are located. However, several rural areas also demonstrate high rates of employment, related to the presence of residential care facilities for the elderly or those with learning disabilities in larger premises in villages or the countryside.

3.3 Employment in the Health and Care Sector

Size of the Sector: The health and care sector accounts for 66,450 jobs across Greater Lincolnshire and Rutland (BRES, 2020). The largest sub-sectors by employment are hospital activities (20,075 jobs); other human health activities[1] (8,080); and social work activities without accommodation[2] (6,710 jobs). Across Greater Lincolnshire, 14% of employment is in health and care, slightly more than the national average of 13%.

Rate of Employment across the Sector: As Table 1 shows, there are variations in the proportion of the workforce employed in different health and care sub-sectors. For example, despite the high numbers employed, ***local hospitals employ a lower proportion of the local workforce than the national average*** (with a location quotient (LQ)[3] of 0.9), which is perhaps explained by the rural character of the area and relatively small/less specialised nature of the hospitals when compared with those in metropolitan areas. Several of ***the most highly represented sectors are focused on non-medical care.*** Residential care activities for those with learning disabilities, mental health and substance abuse is a relatively small sub-sector, accounting for 1,250 jobs, but employs three times the national average, while other residential care activities (which includes children's homes, homeless shelters and halfway homes) employs one and half times the national average. Employment in ***activities related to care for elderly and disabled people are highly represented***, with social work without accommodation for this group (which includes day centres, home help and rehabilitation) accounting for 1.4, and medical nursing home activities 1.3, times the average level of employment nationally. This may reflect the age structure of the Lincolnshire population, with a high proportion of retirees, particularly in rural and coastal areas. Employment in GP practices is also highly represented, at 1.4 times the national average.

Table 1: Top 5 Sub-Sectors by Employment and Location Quotient

By Employment	By Concentration (Location Quotient)
Hospital activities (20,075)	Residential care activities for learning disabilities, mental health and substance abuse (3.0)
Other human health activities (8,080)	Other residential care activities (1.5)
Social work activities without accomm nec (6,710)	Social work activities without accommodation for the elderly and disabled (1.4)
Activities of general medical practice (6,220)	General medical practice activities (1.4)
Social work activities without accommodation for the elderly and disabled (6,220)	Medical nursing home activities (1.3)

Sector Growth: ***Employment in the sector has grown strongly*** in the area, at 13% (or 7,560 jobs) between 2015 and 2020 compared with a rate of 6% across England. This has been ***underpinned by growth in hospital activities*** (an increase of 2,975 jobs). The growth of activities such as social work without accommodation (1,690 jobs) perhaps reflects the ***expansion of the community and private sector in delivering counselling, welfare and employability support***, for example via social prescribing, while other human health activities have also grown rapidly (1,020 jobs).

[1] Other human health activities include medical activities not carried out by doctors in hospitals or by dentists such as midwives, physiotherapists and speech therapists.
[2] Other social work activities without accommodation n.e.c. includes social, counselling, welfare, refugee, referral and similar services which are carried out by government offices, private organisations, or charities.
[3] A location quotient (LQ) refers to the proportion of people employed in an area compared with the national average. For example, a LQ of 1 is the same as the national average, a LQ of 2 is twice the national average.

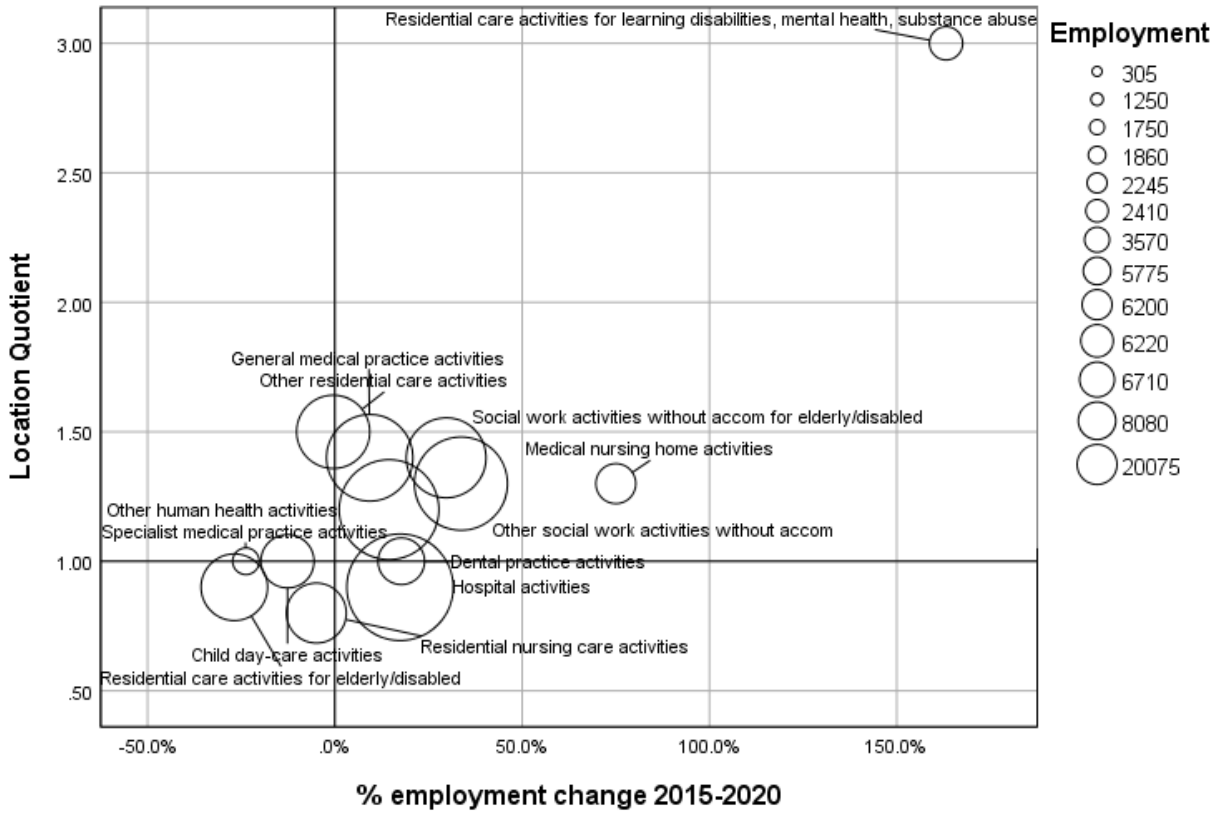
In terms of percentage growth, ***the strongest growth has been in residential care activities for those with learning disabilities, mental health and substance abuse***, which increased by 163% (or 775 jobs) between 2015 and 2020. Medical nursing activities increased by 75% (or 750 jobs) over the same period, while social work activities without accommodation for the elderly and disabled, and not elsewhere classified, both increased by more than 30%. The activities of dental practices increased by 18% or 280 jobs.

Table 2: Top 5 Sub-Sectors by Employment Growth in Number and Percentage Change

By Employment Growth 2015-2020 (numbers)	By Employment Growth 2015-2020 (%)
Hospital activities (2,975)	Residential care activities for learning disabilities, mental health and substance abuse (163%)
Other social work activities without accomm nec (1,690)	Medical nursing home activities (75%)
Social work activities without accommodation for the elderly and disabled (1,420)	Other social work activities without accommodation nec (34%)
Other human health activities (1,020)	Social work activities without accommodation for the elderly and disabled (30%)
Residential care activities for learning disabilities, mental health and substance abuse (775)	Dental practice activities (18%)

Graph 1 presents the number of jobs, location quotients, and percentage growth for each of these health and care sub-sectors. It allows easy identification of the size, significance and trajectory of sub-sectors, for example, that are growing and highly represented (e.g. residential care activities for those with learning disabilities) or that are under-represented but growing (e.g., hospital activities).

Graph 1: Employment in Greater Lincolnshire's Health and Care Sector, by size, jobs growth and Location Quotient



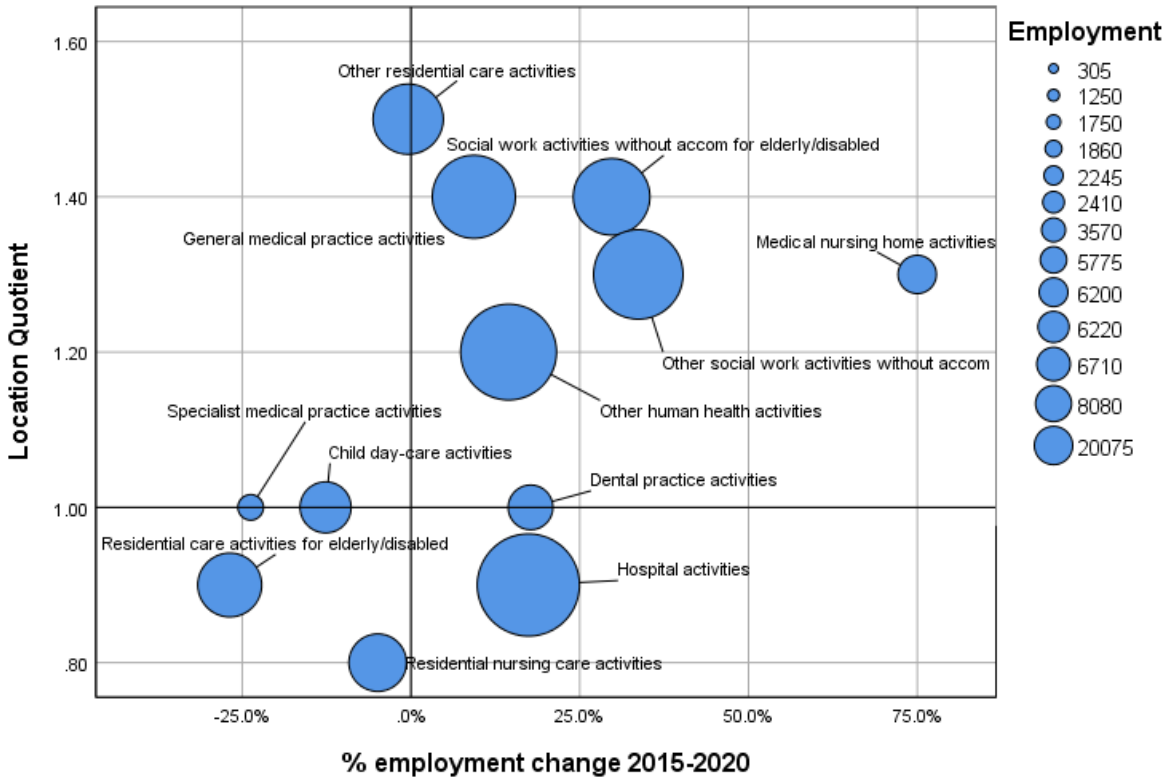
Graph 2 excludes residential care activities for those with learning disabilities to allow a closer look at the other sub-sectors. It shows that employment in residential nursing care and residential care activities for the elderly and disabled have both declined. Employment in medical nursing home activities has increased but the overall effect is a ***loss of employment in residential/nursing care for the elderly and disabled***. At the time, social work activities without accommodation for the elderly and disabled have grown strongly. One explanation is that ***provision of care delivered to the home and through day care centres is offsetting the decline in residential care provision***.

Employment in social work activities without accommodation (which includes activities such as counselling and welfare support delivered by charities and the public sector), have also demonstrated strong growth perhaps reflecting ***expansion of the community sector in this area***.

Growth in social work activities in Greater Lincolnshire is at odds with the national trend, where these activities have declined or remained static.

There has been decline in child day-care activities and specialist medical practice activities, although the proportion of jobs remain similar to the national average.

Graph 2: Greater Lincolnshire's Health and Care Sector, by employment size, jobs growth and Location Quotient (excluding residential care activities for learning disabilities, mental health and substance abuse)



3.4 Employment in other Sub-Sectors related to Health and Care

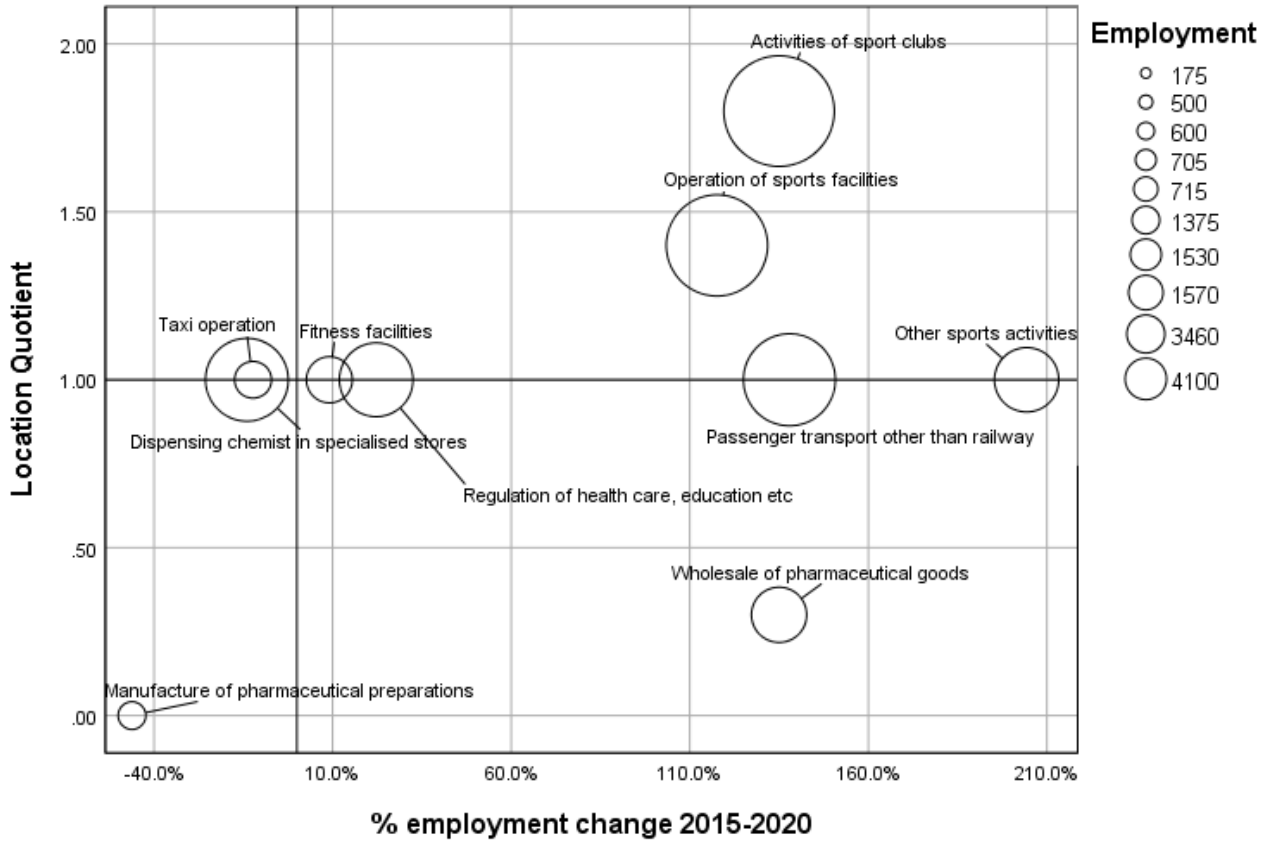
Several sub-sectors that are not part of the health and care sector, but that can be considered related, have also been analysed. These include activities such as passenger transport, dispensing chemists and production of pharmaceutical goods, sports facilities and activities, and regulation of health care services. As graph 3 shows, many of these activities employ a similar proportion of the workforce as that employed nationally; with taxi operation, chemists, fitness facilities, healthcare regulation,

passenger transport, and other sports activities all demonstrating an LQ of around 1. The number of jobs in taxi operation has reduced by 70 and is now 500 across the area. Similarly, dispensing chemists now employ 1,530, a fall of 250 since 2015.

There are a number of areas of growth, including in wholesale of pharmaceutical goods, which accounts for 705 jobs, having increased by 405 jobs since 2015. The operation of sports facilities and activities of sports clubs are both highly represented and have experienced strong growth, by more than 4,000 jobs between 2015 and 2020. Passenger transport, which includes bus services, employs 1,570 across the area, having increased by 910 jobs since 2015.

The analysis did not reveal significant employment in biotechnology research, with fewer than 25 jobs identified across the area. Further primary research is therefore needed to understand developments in this sector.

Graph 3: Other Sub-sectors related to Health and Care in Greater Lincolnshire, by employment size, jobs growth and Location Quotient



3.5 Geographical Distribution of Health and Care Sector Employment

Table 3 shows the distribution of health and care employment across the Greater Lincolnshire district and unitary authority areas. As might be expected, ***employment is most highly represented in areas where there are hospitals***, such as Boston, Lincoln, South Kesteven, North East Lincolnshire and North Lincolnshire. Almost all areas have seen a growth in sector employment, particularly Rutland, West Lindsey South Holland, South Kesteven and Lincoln, but excepting East Lindsey where it has declined

by 4%. As the largest and most rural district in Greater Lincolnshire, and with challenges related to its high retiree population, ***the decline in health and care sector employment in East Lindsey is of concern***.

Table 3: Distribution of Health and Care Sector Employment by Local Authority District/Unitary

Area	Employment 2015	Employment 2020	% of all employment 2020	% growth in employment 2015-2020	Location Quotient
Boston	5,355	6,070	19%	13%	1.4
East Lindsey	5,320	5,090	10%	-4%	0.8
Lincoln	9,605	11,715	21%	22%	1.6
North Kesteven	4,415	4,820	11%	9%	0.9
Rutland	1,015	1,400	9%	38%	0.7
South Holland	2,525	3,100	7%	23%	0.6
South Kesteven	7,555	9,135	16%	21%	1.2
West Lindsey	2,620	3,235	11%	23%	0.8
North East Lincolnshire	10,900	11,535	17%	6%	1.3
North Lincolnshire	8,290	8,725	12%	5%	0.9
Greater Lincolnshire	57,875	65,050	14%	12%	1.1
Greater Lincolnshire + Rutland	58,890	66,450	14%	13%	1.1
England	3,237,500	3,437,500	13%	6%	1.0

Table 4 sets out the sub-sectors with the largest volume of jobs growth and decline for each local authority district/unitary area. Hospitals account for the largest share of jobs growth in Boston, Lincoln, West Lindsey and North Lincolnshire, and care-related activities for East Lindsey, North Kesteven, and North East Lincolnshire. The loss of employment in residential care activities for the elderly and disabled can be clearly observed across Boston, North Kesteven, Rutland, South Holland and North Lincolnshire.

Table 4: Distribution of Health and Care Sector Employment by Local Authority District/Unitary

Area	Sub-sectors with largest jobs growth	Sub-sectors by largest jobs decline
Boston	Hospital activities (+500)	Residential care activities for elderly and disabled (-135)
East Lindsey	Residential nursing care activities (+150)	Other residential care activities (-200)
Lincoln	Hospital activities (+1,000)	Residential nursing care activities (-170)
North Kesteven	Residential care activities for learning disabilities, mental health and substance abuse (+325)	Residential care activities for the elderly and disabled (-125)
Rutland	Social work without accommodation for the elderly and disabled (+170)	Residential care activities for elderly and disabled (-60)
South Holland	General medical practice activities (+125)	Residential care activities for elderly and disabled (-225)
South Kesteven	Other human health activities (+750)	Other social work activities without accomm nec (-200)
West Lindsey	Hospital activities (+250)	Other residential care activities (-100)
North East Lincolnshire	Medical nursing home activities (+250)	Social work activities without accomm for elderly and disabled (-250)
North Lincolnshire	Hospital activities (+1,500)	Residential care activities for elderly and disabled (-400)

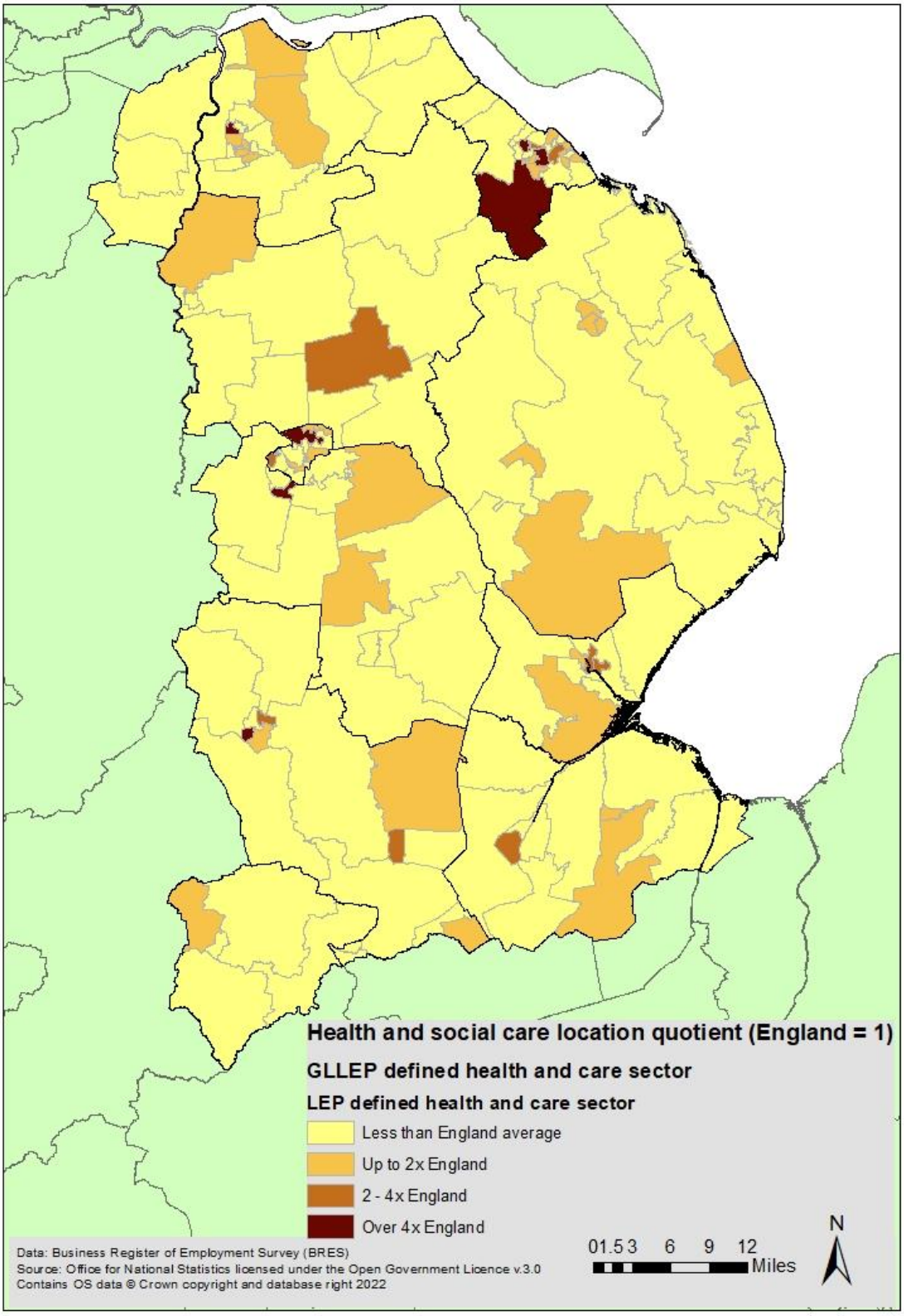
Area	Sub-sectors with largest jobs growth	Sub-sectors by largest jobs decline
Greater Lincolnshire + Rutland	Hospital activities (+3,000)	Residential care activities for elderly and disabled (-1,250)
Greater Lincolnshire + Rutland	Hospital activities (+2,975)	Residential care activities for elderly and disabled (-1,310)
England	Hospital activities (169,000)	Other social work activities without accommodation nec (-49,500)

Maps 1 and 2 show the concentration of health and care employment at a lower geographical level, Middle Super Output Area (MSOA). Map 1 presents the location quotients solely for employment in the health and care sector, and Map 2 for employment in activities that relate to or support the health and care sector.

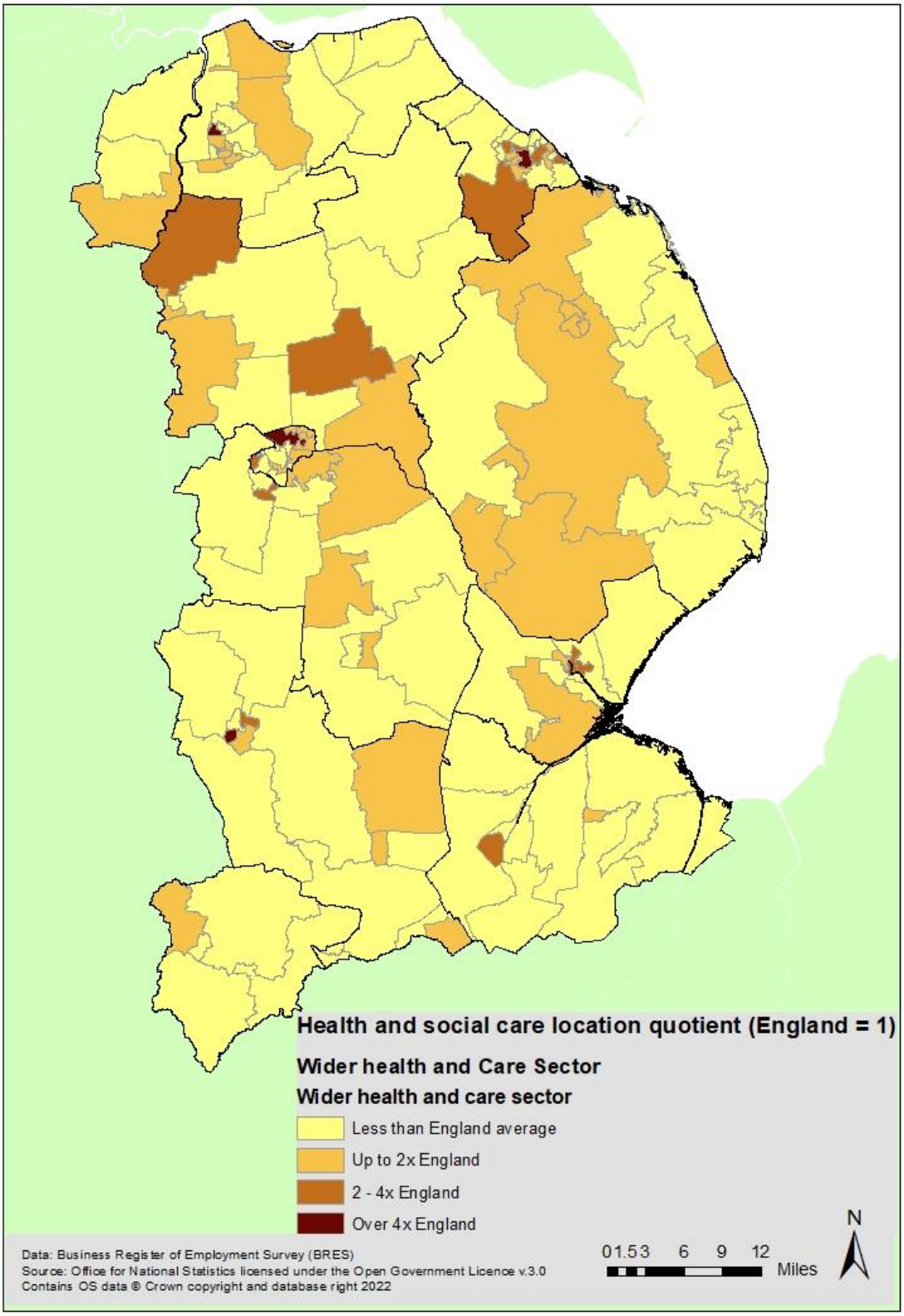
As expected, ***employment in the health and care sector is strongly concentrated in urban centres where hospitals are located***. However, a number of rural areas also demonstrate high rates of employment, some related to the presence of residential care facilities for the elderly or those with learning disabilities. This could be explained by the greater presence of larger properties and estates (that lend themselves to the requirements of residential care facilities) in rural areas compared with urban areas.

Employment in other activities related to the health and care sector, presented in Map 2, are also most strongly concentrated in urban centres. However, there is a more even dispersal of employment across rural areas and market towns, which may reflect the location of sports facilities and activities, which account for a large share of the employment in this group.

Map 1: Location Quotients for Health and Care Sector Employment (BRES, 2020)



Map 2: Location Quotients for Activities related to Health and Care Sector (BRES, 2020)



4. Stakeholder Interviews

4.1 Introduction

Rose Regeneration and Lincolnshire Voluntary Engagement Team (LVET) engaged a total of 15 individuals to participate in the Health and Care Cluster Research. This section outlines key themes from each question asked as part of the research.

1. Information on interviewees and organizations / sectors represented.
2. Interdependencies between organisations within the Health and Care Sector.
3. Networks involved within the health and care sector.
4. Integration between sectors
5. Sector strengths, challenges and gaps in provision.
6. Future support

4.2 Information on interviewees and organisations.

External partners involved included those from the Health and Care Sector in Lincolnshire. There was a range from CEOs of large voluntary sector (VCSE) organisations, key individuals within the NHS, both CCG and individual trusts, and private organisations which have a specific focus on health and care.

Staffing figures of external partners ranged from 0 to 11,250 with a general geographical coverage area of Lincolnshire or wider. The visions of the external partner organisations all focused on health and care, including the "Strategic planning of an integrated care system". The demographic of patients varied, with some of the private businesses having other businesses as their main clients.

The role of the external partners within the Health and Care system were system leaders in their respective fields. This included:

- Lincolnshire Partnership Foundation Trust (LPFT)
- PCN Alliance
- Bishop Grosseteste University
- Lincolnshire CCG
- St Barnabas Hospice
- LinCA
- Chamber of Commerce
- Medical Technologies Innovation Facility
- LIVES
- Federation of Small Business

4.3 Interdependencies between organisations in the sector.

Several of the external partners linked with the public, private and VCSE sector. Some partners were more closely interlinked than others, with emergency response linking more with EMAS than any other partner. One partner worked with, but had little involvement with, the VCSE sector. The main interaction found across many interviews were working partnerships (formal and informal), as well as forums, networking events and supplier / consumer relationships.

Current barriers identified as potentially inhibiting intersectoral collaboration included:

- Partners working under different levels of regulations.
- Workforce development challenges.

- Different attitudes and cultures, including a lack of mutual understanding.
- Different data systems and language.
- Differences in infrastructure support, including funding challenges.
- Geographical challenges of Lincolnshire and services being city-focused for Lincoln.

Further to the above, interviewees were asked how collaboration could be supported, which elicited the following responses: better communication; better connectivity; alignment of common outcomes; positive attitudes at a senior and operational level; VCSE being viewed as an equal partner and longer-term funding.

"[There is] not a strong history of partnership working and collaboration – but there is change and attitudes towards change and doing things differently are more positive"

"Working jointly on the Towns Fund in Coastal areas [is] a new way of tackling traditional problems by working together"

"We [voluntary sector] don't have the same infrastructure that they do, the public sector is funded and all of their infrastructure as well as the direct care is funded and we have to do all of that ourselves"

4.4 Networks, groups and consortia

Many external partners are involved with other networks, which included (but were not limited to) the following:

- NHS including CCG and individual trusts.
- National Centre for Rural Health and Care
- Pharmaceutical Society
- LEP
- Strategic boards including BLLET, Provider Collaborative and People Board
- Integrated Care System (ICB and ICB)
- Links with colleges and universities.
- Representative organisations

In most of these networks/groups, it was recognised that there was representation from public, private and VCSE organisations.

4.5 Integration between sectors

Participants were asked how well they felt their part of the health and care system integrated within other areas of the system across Greater Lincolnshire. A key theme which emerged here is the integration is variable, but generally a good starting point to build on relationships and develop further collaborations between sectors. It was noted that Lincolnshire's geography affected the level of integration between sectors.

"It is variable for a number of reasons – understanding the future, communications and population health management [including] areas of health inequalities and deprivation"

"There's big improvements with PCNs and ICSs and a greater willingness and openness to collaborate but we need to make it happen"

"There is a willingness to integrate but challenges. For small organisations it requires a huge amount of resource and people to go to all of the meetings"

4.6 Sector Strengths, Challenges and Gaps in provision

There were several themes identified when the participants were asked what they considered to be the strengths of the health and social care system in Greater Lincolnshire. The themes identified are as follows:

- Simplicity and relatively small size of Lincolnshire's system.
- Positive, more honest and transparent relationships and attitudes from senior leaders compared to previously.
- Resilience of health and care sector with good health and care educational provision.
- Innovative work at the fringes of the health and care system (outside of the NHS).

When exploring innovation and key opportunities further, enhanced technology was the main theme identified. Digital solutions to support distance learning and improved communication such as broadband were prominently included. There was also a further theme identified relating to health inequalities.

"Innovating and developing and exploiting the resources that we already have and are outside of the NHS"

"The people / senior leaders in the health system are good and keen to do things differently and make the most of integration opportunities"

One of the biggest key themes identified as amongst the challenges that the sector was facing was around workforce and the recruitment and retention of staff. Other themes identified included the geographic and demographic nature of Lincolnshire (including rurality, coastal deprivation and transient population), infrastructure, low academic achievement, poor self-promotion for VCSE, lack of investment and increased operational costs.

"[There are] not enough healthcare professionals for the number of residents we have in poor health – shortage is even more disadvantageous"

Moving to gaps in provision for Greater Lincolnshire, several were identified by the participants:

- Specialist support (including autism support post diagnosis, mental health, dementia, stroke, brain injury, degenerative illnesses, loneliness and social isolation). This also included gaps within home care services, which have a knock-on effect in care home, thus adversely impacting on hospital discharges.
- Coordination of adult care services
- Workforce challenges (including having trained staff). This also included not enough resource or capacity of staff, and a perceived need to invest in digital solutions to help meet demand.
- Unmet need around homelessness and housing.
- Health inequalities.

"Significant gaps in home care services which is having a knock-on effect in care homes and impacting adversely on hospital discharges"

"Depending on where you live depends on your life expectancy; if you have mental illness your life expectancy is lower"

There were a range of responses when informants were asked how these gaps may be filled. These included expanding delivery through improved, more innovative and forward-thinking collaboration across the private, public and voluntary sectors; improved brand image for the health and care sector; further commissioning and funding; improved pay structures and recognition of social care being a professional vocation; and developing the Social Value Engine approach to demonstrate social and economic value. When the participants were asked whether the gaps could best be filled by expanding delivery of existing services or encouraging new collaborations, the consensus was that both had a key role to play, with a key message being the importance of having consistent health outputs rather than consistent service delivery as the latter is likely to and probably should vary depending on where in Lincolnshire one finds oneself.

"Need to move from reactive [towards a] more proactive approach will make a huge difference]"

"Commissioning new and innovative services with a degree of investment in R&D and startup businesses"

"to address that gap [in recruitment of health professionals] we need to invest in technologies and take innovative approaches that don't rely on health care professionals being in the immediate area. We need a fundamentally different approach. And an innovative way of bringing investment into Lincolnshire."

"A proper focus on population health and proper analysis of what is needed in each area"

"The collaborations need to be beyond the standard collaboration, I think we need to see housing as a vital component of population health and have those at the table as much as anyone else"

4.7 Future Support

There were several insights offered when the participants were asked what the Greater Lincolnshire LEP can do to further support innovation in the health and care sector. These included the following:

- Further research and development around excellence in rural and costal healthcare; building the Lincolnshire brand as a place to live and work.
- Invest in innovation and research and development to delivers things differently, making better use of resources. This also includes investment in services and infrastructure.
- Investment into a career framework for care workers, including a remuneration banding system and continuous professional development.
- Recognition of the value of the Health and Care sector to make attracting investment easier.
- Raise awareness of what the LEP do and can do, bringing together all sectors to work strategically as everyone needs to come together to improve health outcomes.
- Provide an ecosystem for innovation to happen in Greater Lincolnshire, including Lincolnshire being the 'testbed' for doing clinical trials differently.

"Wealth and Health – address deprivation to improve the population's health and care, [starting with] social housing and employment before [any health initiatives are delivered]."

"Research and development around excellence in rural and coastal healthcare; building the Lincolnshire brand as a place to live and work" – Anonymous.

5. Managing mental health in Small and Medium-sized Enterprises in Greater Lincolnshire

5.1 Approach

This element of the report aimed to examine the management of occupational health in small and mediums sized organisations in the Greater Lincolnshire region.

A survey was developed to capture experiences of managing occupational health (specifically psychological wellbeing) and this was distributed to all SMEs in Lincolnshire and Rutland where key contact details were available (approximately 400 organisations, in two waves). This approach elicited just one response, which is perhaps a measure of both the demands on the attention of those managing SMEs as well as their consequent immediate priorities.

A second call for engagement with the project was distributed via the University of Lincoln small business newsletter, to a broad range of SMEs. Owner-Managers were invited to take part in a short interview to discuss their current strategies for managing psychological health. This second approach elicited no responses.

Given the time restrictions and low levels of engagement from the target population, the findings here have been drawn from a review of the policy and research literature examining SME engagement with and approaches to the management of occupational health in their organisations.

5.2 Background and Purpose

Two key pieces of guidance focusing on the management of psychological hazards at work have been published in the last year.

The International Organization for Standardization (ISO) published the ISO45003 Occupational health and safety management – Psychological health and safety at work – Guidance for managing psychosocial risks was published in June 2021 and the National Institute of Clinical Excellence (NICE) published guideline NG212 - Mental Wellbeing at Work in June 2022. Both sets of guidance identify a focus on all employers including SMEs.

The purpose of this review is to:

- Outline key themes in the guidance and consider how these can be applied to SMEs in the region.
- To review the policy and research literature to identify barriers to and opportunities for SME engagement with the psychological wellbeing agenda, and specifically barriers and opportunities associated with engagement with occupational health services.

5.3 Overview of new guidance

The ISO 45003 (https://www.iso.org/obp/ui/#iso:std:iso:45003:ed-1:v1:en) and NG212 (https://www.nice.org.uk/guidance/ng212/resources/mental-wellbeing-at-work-pdf-66143771841733) published guidance are voluntary sets of guidance for organisations of all sizes, designed to address psychological wellbeing of workers and the management of psychological hazards in the workplace.

Both sets of guidance share several key themes:

- Leadership: The management of psychological hazards needs to be identified and championed at the executive level of the organisation. This may include ensuring that strategy and policies reflect this commitment, that a named senior individual is responsible for proactively promoting wellbeing in the workplace, and that suitable resources are deployed to address key issues.
- Worker engagement: Involve employees in identifying and minimising psychological hazards at work; provide opportunities for feedback and input from employees and encourage participation and engagement whilst protecting employees who raise concerns or report incidents.
- Hazard identification and assessment: Consider undertaking regular audits and assessments of the workplace. These should inform planning and action around areas such as the organisation of work (job design and workload management), the work environment, high risk roles, workplace culture and role autonomy.
- Develop and offer systematic training and support for managers to embed organisational policies, to manage individual employee risk, and to offer support to employees.

In addition to these key topics in each set of guidance, NG212 offer specific advice for SME and micro businesses (defined as those employing 1 – 9 members of staff):

- Owners and owner-managers should address their own mental health needs as well as that of their employees
- Advice should be sought from local authorities and other bodies (including local enterprise partnerships)
- SMEs and micro-businesses can consider signing up to the Mental Health at Work Commitment (https://www.mentalhealthatwork.org.uk/commitment/)
- Encouraged to access employee assistance programmes and occupational health services.

5.4 How do SMEs engage with Occupational health and wellbeing?

This section draws on a range of reports and research papers that have examined the typical occupational health issues faced by SMEs; the level of engagement with occupational and psychological wellbeing services, policies and processes; and the barriers to engaging with these.

5.4.1 SME issues and approaches.

Across the research and policy literature there is a consensus that SMEs have different issues with regards to employee wellbeing. SMEs report that their small size and proximity between employees and employers support informal and personalised approaches to the management of employee wellbeing[1 2]

Whilst informal approaches may encourage personalised intervention and support, these close proximal relationships may also encourage presenteeism, particularly when work is being covered by colleagues in the small business[1 3].

Typical issues reported by employees working in SMEs include challenges managing workload work-life balance, particularly when coupled with few organisational resources and fewer opportunities for career development [5 6 7]. However, employees of SMEs may be less likely to report their work as stressful and have relatively lower sickness absence than larger organisations[9].

5.4.2 SME Employee wellbeing provision

A DWP review of processes employed to manage employee wellbeing at work[8] found that 50% of SMEs surveyed included health and wellbeing as a regular board agenda item, and SMEs offer significantly fewer psychological support services to their staff when compared with larger organisations. Additionally smaller organisations were less likely to have systems in place to monitor wellbeing. In all instances these resources and policies increased as size of organisation increased, with micro and small organisations having less resource to monitor wellbeing than medium sized firms.

5.4.3 Barriers to provision

Reflecting the findings above, the most common barrier to implementing wellbeing policies and provision was one of cost – smaller organisations may not be able to dedicate financial resources and may not perceive that there is enough need within the organisation to justify the resource[10]. Additionally, because smaller organisations are less likely to monitor employee wellbeing, they may lack the data to be able to evaluate the potential benefits of occupational health services. Further barriers to formalised provision relate to the culture and size of the organisation. For example, SMEs may feel that guidelines may not be appropriate for smaller organisations[11]; and that formal procedures may clash with more informal and personalised approaches to employee wellbeing, which may be perceived as more appropriate and cheaper [8 11].

5.4.4 Services used by SMEs

Small employers (56%) are more likely to seek support reactively when they have an issue[2]. When looking for support and help 47% of the surveyed small businesses would use the internet to look for information, 27% would seek help from a professional network, 9% from legal services, 7% from an occupational health service and 5% from their HR team[2].

5.5 Initial recommendations

The recent publication of both ISO45003 and NG212 offer an opportunity to engage with regional SMEs to develop appropriate and tailored support in the area of employee wellbeing. NG212 in particular aims to address the psychological wellbeing of employees in SMEs, whilst acknowledging the barriers to support. The NICE guidance points to the role of local authorities, charities and other local bodies in championing and providing information on resources to support employee wellbeing at work.

At a regional level there is opportunity to develop tailored support services for SMEs that may offer ad hoc or tailored plans to support these organisations. Additionally, influential community and local government groups can work together to provide signposting to appropriate and useful support services in the region and nationally.

Finally, support to collect and analyse data related to employee wellbeing in SMEs would allow SMEs to understand the impact of preventative measures to support employee wellbeing. A cross-regional approach to this, potentially in the shape of an observatory model, would offer a resource to SMEs whilst building a clear evidence base for what does and does not work for these organisations in the Greater Lincolnshire region.

6.Emerging Findings

The following tables presents some of the initial findings that have emerged from the research undertaken so far, drawing on the document review, analysis, and interviews. These have been grouped by: (i) sector strengths and assets; (ii) gaps in provision and unmet need; (iii) challenges affecting delivery, collaboration and innovation; and (iv) opportunities and potential solutions to

improve collaboration between sector partners and foster innovation. The findings are not intended to be exhaustive but rather to form the basis for further discussion with and between the members of the Health and Care Enterprise Board and the wider GLLEP.

The source for each finding is referenced; 'lit' for document review, 'data' for data analysis, and 'int' for interview responses.

6.1 Sector Strengths/Assets

Size and Growth

- Size of health and care sector, with £2bn output and 8% of the area's economic value (lit)
- Sector employment growth outperformed the rate nationally (at 13% between 2015-2020 compared with 6% nationally) (data)
- Care activities are strongly represented in the sector, particularly day care, home care and medical nursing homes (data)
- Strong growth of the voluntary and community sector (VCS) in delivering complimentary services such as counselling and welfare support (data)
- Simplicity of health and care system, with one trust for each mental health, acute, and community in Lincolnshire County and co-terminus boundaries with local authority, police (int)
- Sector resilience, demonstrated by Covid-19 response (int)

Community and Collaboration

- Recently improved/more open relationships between sector partners, partly driven by formation of ICS (int)
- Increasingly aligned vision around population health outcomes (int)
- Positive senior leaders who are keen to do things differently (int)
- Strong and growing VCS sector which has increasing voice via the Voluntary Engagement Team (int)
- Demonstration of value of VCS sector in Covid-19 response, e.g. vaccination centres (int)

Assets

- Lincolnshire Health and Wellbeing Board (lit)
- Lincoln Science and Innovation Park (int)
- National Centre for Rural Health and Care (NCRHC) (int)
- Lincoln International Institute for Rural Health (int)
- Lincoln Institute for Health (LIH) – 'bench to bedside' and 'cell to community' approach – underpinned by the concept of the Lincoln Living Lab (lit)
- The Centre for Innovation in Rural Health at Lincoln Medical School, co-locating NCRHC, the Community & Health Research Unit (CaHRU), LIH and Lincoln Clinical Trials Unit (lit)
- Greater Lincolnshire Innovation Council (lit)
- The Centre for Ageing Better, with Greater Lincolnshire as its strategic rural partner (lit)
- Many assets are outside the NHS (int)

6.2 Gaps

Workforce

- Insufficient healthcare professionals for the number of residents in poor health
- Recruitment challenges across all health and care occupations (int, lit)
- Home care staffing levels (int)

Community and Collaboration

- Coordination of adult social care (int)
- Gaps between primary and secondary care (int)
- Uneven spatial coverage of services (int)
- Gaps in home care services affecting care homes and hospital discharges (int)

Unmet need

- Homelessness and housing (int)
- Health inequalities: "*depending where you live depends on your life expectancy, if you have mental illness your life expectancy is lower*." (int)

Specialist support for:

- Mental health (int)
- Autism support, post diagnosis (int, lit)
- Dementia (int, lit)
- Stroke and brain injury (int
- Degenerative illness, e.g. MS and MND (int)
- End of life care (int

6.3 Challenges

Greater Lincolnshire Geography and Demography

- Ageing population (lit, int)
- Rurality and sparsity of population (lit, int)
- Transient populations (e.g. seasonal workers, migrants) (lit, int)
- Health inequalities, exacerbated by rural and coastal deprivation (lit, int)
- 'Years Living with Disability' increasing (lit)
- Social isolation (lit)
- Mental health and emotional wellbeing (lit, int)
- Rural digital divide and 'digital poverty' (lit, int)

Greater Lincolnshire business environment

- Widening gap in productivity between Greater Lincolnshire and the UK (lit)
- High level of job vacancies and lack of skills (lit)
- Road and broadband connectivity (int, lit)
- Low academic achievements and aspirations (int)
- Legacy of capital under-investment due to rural location (int)
- Lack of business growth infrastructure (lit)
- Lower business growth in rural and coastal locations (lit)
- Third of employees paid below the real living wage; health and care are major low productivity employers (lit)

Health and Care Delivery

- Covid-19 exacerbated H&C workforce development challenges (int)
- Productivity of health and care sector at a national level outperforms the local level (lit).

- Strong urban focus of health and care delivery (data, lit, int)

Community and Collaboration

- Partnership working previously constrained by partners working under different levels of regulation (int)
- Engaging with NHS is resource-intensive for SMEs and VCS organisations due to perceived bureaucracy/number of meetings (int).
- Lack of mutual understanding between the statutory sector and the independent care sector - private and voluntary (int)
- Reluctance to change – culture and behaviour (int)
- For SMEs, finding an entry point to H&C commissioners and Providers in all 3 sectors - public, private and third sector (int)
- Collaborative grant applications challenging where public and private organisations come together, e.g. particularly around intellectual property (int)
- Statutory sector operating "reactively" rather than "proactively" with VCS sector, particularly during times of pressure (int)

6.4 Opportunities/Solutions

Workforce

- Promotion of the H&C sector as a place to work and invest: "*a need for the sector to reset its brand and image to overcome workforce challenges*" (int, lit)
- Offer H&C educational opportunities for younger and more mature students (int)
- Ensure H&C student placements are distributed across Lincolnshire, not just in Lincoln (int)
- Technological solutions to deliver distance learning (int)
- Continuous professional development - meaningful, sustainable, quality careers (int)
- Improved pay structures and recognition of social care being a professional vocation (int)
- New models of flexible working and job design to offer improved work-life balance and enhance recruitment (lit)
- Use of Social Value approach to demonstrate social as well as economic value of the sector as a way of attracting new recruits (int)

Business Environment

- Building the Lincolnshire brand as a place to live and work (int)
- Broadband connectivity (int, lit)
- Road connectivity and public transport (int, lit)
- Availability of housing (int)

Networking and capacity building

- Facilitation for networking and capacity building in the sector (int, lit)
- Partnership working fostered across NHS, Local Authority and VCSE Sectors (int)
- Opportunity for health & care partners to share what they are doing. A 'Team Lincolnshire' for health and care? (int)
- More collaborations, new ways of doing things, less reliance on NHS as a supplier of services e.g. bringing in YMCA, housing associations to address housing as driver of health (int)
- Preventative approach around healthy and active ageing a primary driver for developing the cluster of health and care businesses (lit)

- Strategic ambition for the health and care cluster to be market leader in rural healthcare and better ageing (lit)
- An innovative ecosystem requires people to do things differently – understood by those in leadership roles but can be stopped by the people working beneath them (int)
- Exploiting existing resources that are outside the NHS, e.g. LIVES, LSIP, HEIs to support innovation and health improvement (int)
- Longer term funding/contracting for VCS sector to provide the opportunity for organisations to invest, and be recognised as equals in the system (int)
- Towns Fund an example of where health and other stakeholders have worked together strategically, e.g. in Mablethorpe (int)
- Equal funding for independent care as the statutory sector (int)
- The LEP to provide a campaign about what they do, their outputs and focus - a lot of good work taking place that is not recognised (int)
- The H&C Sector could be a Levelling Up Growth area if the value of the sector had improved recognition (int)

Public Health

- A focus on population health and proper analysis of what is needed in each area (int)
- Housing as an integrated component of population health (int)
- Focus on the role the health and wellbeing of the workforce to drive economic development.
- Engaging employers in improving the health of the workforce so they can be economically active and economic contributors (lit)

Mental Health in SMEs

- Tailored support services for SMEs offering ad hoc or tailored plans to support employee wellbeing (lit)
- Provision of signposting to appropriate regional and national support services by community and local government groups (lit).
- Collection of data related to employee wellbeing in SMEs to understand the impact of preventative measures to support employee wellbeing.
- A cross-regional approach (e.g. observatory model) could offer resource to SMEs whilst building an evidence base for what works in Greater Lincolnshire (lit).

Innovation

- Digitalisation of selected services offers great potential for delivering services to rural and dispersed communities, e.g. patient interaction through digital channels, e-prescribing (int)
- New models of care to meet rural health and care needs, inc community involvement in development of new services, community-based provision, e.g. Health in the High Street (lit)
- Improve med tech sector access to patients via integrated care via primary care networks, e.g. via living labs such as that being developed at the Campus for Future Living in Mablethorpe
- Funding to support new technologies, e.g. seed funding or rate relief or investment support for companies locating in Greater Lincolnshire (int)
- Lincolnshire as a testbed for doing clinical trials differently and seeing what works in the real world (with rural, dispersed, poor health, low income population) (int)
- Working with universities on more R&D opportunities, and commissioning new and innovative services from start-up businesses (int)
- Small but growing workforce around wholesale of pharmaceuticals in NK and SK (data)
- Digital opportunities for development in communications and supporting care systems - learning from innovation in the Food Industry (int)

- Support for H&C businesses and start-ups to access grants and funding e.g., Growth Hub, Innovate UK Funding for Ageing Society, Towns Fund, Future High Street Fund and Local Growth Funds as catalysts (lit)
- East Midlands Academic Health and Science Network to extend opportunities for business growth to 2,500 health and care businesses based in Greater Lincolnshire (lit)
- Greater Lincolnshire developing links with Be the Business to develop targeted programmes for micro and family businesses with potential to grow (int)
- HEI-driven innovation programmes, e.g., 'Lincoln Made Smarter' pilot to drive industrial digitalisation across Greater Lincolnshire (int)
- 'Communities of the Future' to meet the needs of an ageing population. This will explore improved physical and digital connectivity to local services and transformation of health and care services[18-7] (lit)
- "*We need to get away from the idea that the NHS can create innovation and look at the vibrancy outside of the NHS*." (int)

Annex 1: Document Review Database

Ref	Document	Overview
01	Briefing - A whole-government approach to improving health Author: Katherine Merrifield and Gwen Nightingale, The Health Foundation. Date: October 2021	This is a national level strategic document that provides some of the broad rationale for more effective collaboration at a local level. • Economic cost of poor health £200bn per year • Makes the case that improving health and health equity government involves action across all government departments • Argues for sustainable and sufficient funding for all local government to support joined-up, place-based working at a local level
02	Developing the Health Index for England 2015 to 2018 Author: Office for National Statistics Date: 3 December 2020	Document introducing a new experimental Health Index for England, providing a single value to measure the health of the nation. This has been in development and has not yet been formally released. Provisional date for release March 2022. Therefore, this is unlikely to be significant for our current project.
03	Public Inquiry into the Informational Needs in Health and Social Care Author: LORIC, Bishop Grosseteste University Date: Undated	A study specially focussed on the Greater Lincolnshire area. Based on the outcomes of three sessions of public discussions. Common themes that emerged from the study: • The importance of the end user • Importance of community trust • The digital divide • Fractured working • Attitudes to data must change
04	GL LEP Health Care Enterprise Board Paper 0 - Agenda - 29th November 2021 Author: Greater Lincolnshire LEP Health and Care Enterprise Board Date: 29th November 2021	The papers for the Board meeting where the above public inquiry report was presented and discussed. The only additional information is a 1 page summary of the findings.
05	GL LEP Health Care Enterprise Strategic Advisory Board Hand Over 28 Apr 21	A 2-page document that summaries the role of the Health and Care Enterprise Strategic Advisory Board

	Author: Not stated Date: 28 April 2021	
06	Health and Care Sector November 2021 Author: Greater Lincolnshire LEP Date: November 2021	A set of 8 slides that provides economic and health data for Greater Lincolnshire. The health and care sector in Greater Lincolnshire: • Employs 64,000 people • Consists of 2,470 'business units' (this includes both public and private organisations) • Generates £2bn economic output (8% of the total economic value) • 3,200 vacancies (Nov 21) (10% of all labour market vacancies)
07	Inclusive economies and healthy futures Author: LGA Community Wellbeing Board Date: 7 December 2021	Strategic document setting out what local councils and their partners can do to reduce health inequalities. The document references six steps (*from PHE's report Inclusive and sustainable economies: leaving no-one behind*): 1. Establish place-based inclusive and sustainable economy networks 2. Set a holistic vision 3. Measure and benchmark 4. Consider the local context 5. Consult with citizens and communities 6. Prioritise areas for action - ensuring that effort is targeted towards the areas of greatest need
08	Digitally Transformed Social Care Author: Microsoft Date: Undated	Promotional set of slides by Microsoft outlining their perspective on integrated health and care.
09	Levelling-Up-Health Author: University of Cambridge and Newcastle University Date: December 2021	87 page document commissioned by Public Health England. Based on literature review (published and grey) and case studies. They identified five guiding principles for levelling up area level health: 1. Healthy-by -default and easy to use initiatives 2. Long-term, multi-sector, multi-component action 3. Locally designed focus 4. Targeting disadvantaged communities 5. Matching of resources to needs There is a section on understanding health and place (p.10) which could be useful for our project. Extensive reference list.

10	Health and Care Strategic Advisory Board - Inclusive and Sustainable Economies Author: Office for Health Improvement & Disparities Date: 29 November 2021	10 slides outlining the structures and recommendations for inclusive and sustainable economies. Generalised, national level document.
11	Northwest Health Cluster Presentation Author: Dr Philip Carvil, UK Research and Innovation (UKRI) and Science and Technology Facilities Council (STFC) Date: Undated	12 slides providing an overview of the North West Health Tec Cluster. Last slide shows an example of a cluster stakeholder group.
12	Reimagining the relationship between universities and the NHS Author: Civic University Network and NHS Confederation Date: Undated	21 slides. Proposes strategy for fostering more collaborative and impactful local partnerships. High level document with links to case studies.
13	Protecting, progressing, prospering: Greater Lincolnshire's Economic Plan for Growth Author: Lincolnshire Resilience Forum Partnership Date: March 2021	Strategic document setting out economic plan for Greater Lincolnshire. Based on the framework of Local Industrial Strategy which identifies 6 'drivers of revival' for the local economic growth (page 5). One of these drivers is Health and Care and the ambitions and priorities are set out on page 16. *'Our ambition is that Greater Lincolnshire will develop new efficient and innovative models of care for a dispersed and ageing economy, building a cluster of local businesses to support active ageing.'*
14	Director of Public Health Annual Report 2019 Author: Derek Ward, Director of Public Health (DPH) for Lincolnshire. Date: Undated	Contents 1. Introduction 2. Lincolnshire's Burden of Disease 3. Implications of the GBD Study for the Health and Care System in Lincolnshire 4. Conclusion
15	JSAA & Connect to Support Workshops Author: unknown Date: September 2021	A report of a district-wide engagement event to promote Connect to Support and the Asset Directory. The Joint Strategic Asset Assessment (JSAA) aims to identify a comprehensive range of assets, both physical and people resource, to understand the potential; maximise their use and help identify gaps. Connect 2 Support Lincolnshire has been agreed as the platform for the JSAA. The event was attended by 65 people. Report contains key findings for each district area and overall

		recommendations.
16	Global Burden of Disease in Lincolnshire – DPH annual report 2019 Author: Director of Public Health Date: Undated	5 PowerPoint slides with definition of Global Disease Burden and statistics for Lincolnshire.
17	Global Burden of Disease Video Author: Unknown Date: Undated	4 minute video explaining Global Burden of Disease
18	Local Industrial Strategy January 2021 Author: Greater Lincolnshire Local Enterprise Partnership Date: January 2021	65 page strategy document. Extracts: • Increase innovation in sector clusters (p.5) • Improve human capital and better diffusion of existing technology – details what this means for Health and Care (p.7) • Greater Lincolnshire Economy - headline data (p.13) • Ambitions for Health and Care (p.35-36)
19	Consolidated Local Industrial Strategy Evidence Base Author: Greater Lincolnshire Local Enterprise Partnership Date: Undated	153 page document. Contains the evidence base that underpins the Local Industrial Strategy

20	Joint Strategic Asset Assessment Update
	
	Date: September 2021
	
	Author: Sean Johnson
		8-page report updating progress with Joint Strategic Asset Assessment (JSAA).
		Extracts:
		• "A health asset is any factor or resource which enhances the ability of individuals, communities and populations to maintain and sustain health and well-being. These assets can operate at the level of the individual, family or community as protective and promoting factors to buffer against life's stresses." (Antony Morgan, Associate Director, National Institute for Health and Clinical Excellence (NICE), 2009)
		• Health assets include:
		  ○ Practical skills, capacity and knowledge of local residents;
		  ○ Networks and connections (social capital) in a community;
		  ○ Local community and voluntary associations;
		  ○ Physical resources of a place that enhance health and wellbeing; and
		  ○ Economic and practical resources

		• The JSAA database is accessed through the Connect to Support Lincolnshire website
21	Joint Strategic Asset Assessment Author: Unknown Date: Undated	Presentation (13 slides) providing an overview of Joint Strategic Asset Assessment and the implementation in Lincolnshire.
22	Public reports pack 28092021 1400 Lincolnshire Health a13-nd Wellbeing Board Author: Lincolnshire Health and Wellbeing Board Date: September 2021	Pack of documents for Health and Wellbeing Board 28th September 2021. Key contents: • Lincolnshire Integrated Care System (ICS): Transition to statutory ICS Update • Health and Wellbeing Board: Mental Health in Lincolnshire Sept 2021 • Joint Strategic Asset Assessment Update • Open Report on behalf of Adult Frailty and Long-Term Conditions
23	Beacon Project: Cornwall and Isles of Scilly Local Enterprise Partnership Author: Beacon Date: Unknown	Print of contents from Beacon website: https://cornwallbeacon.co.uk/ "Beacon helps facilitate a more inclusive and diverse workforce, offering support for managing mental health, disability and long term health conditions in the workplace" (https://cornwallbeacon.co.uk/) Main sections: • Managing disability, health and sickness absence • Creating a good place to work
24	Introduction to Beacon Project Author: DWP/DHSC Joint Work and Health Unit Date: January 2022	1-page introduction to the Beacon Project with contact names.
25	Build Back Better_ our plan for growth (HTML) - GOV.UK Author: Gov.UK Date: March 2021	35-page UK Government strategy document "Our plan to build back better takes a transformational approach, tackling long-term problems to deliver growth that creates high-quality jobs across the UK and makes the most of the strengths of the Union. We must retain our guiding focus on achieving the people's priorities: levelling up the whole of the UK, supporting our transition to net zero, and supporting our vision for Global Britain." Three core pillars of growth: • Infrastructure • Skills • Innovation

26	Draft Beacon Framework Author: Beacon Date: December 2021	5-page summary of learning from the Beacon project. "The aim of this framework is to share the learnings from the Beacon Project with other LEP / Growth Hub areas, to develop local relevant information for businesses on the work and health agenda."
27	Managing health in the workplace – a local 'good practice framework' Author: Cornwall and Isles of Scilly Growth Hub Cluster Date: January 2022	5-slide introduction to a 'Good Work Framework' which in linked to the Beacon project.
28	Health on the High Street. Author: Michael Wood, Susie Finlayson (for NHS Confederation) Date: Undated	35-page strategy document. Purpose: "This report is based on discussions with, and is intended to be read by, the range of NHS, local government and wider community leaders who would be collectively responsible for designing, developing and delivering health to the high street. It offers principles to guide local discussion and decision-making, as well as outlining how future government policy should evolve to support this agenda."
29	Rural Health and Care APPG Inquiry Report Author: All-Party Parliamentary Group (APPG) Date: February 2022	116-page report for APPG with National Centre for Rural Health and Care, based in Lincoln. "We owe it to our rural communities to build a health and social care provision that para-matches their needs both now and looking to the future. If we are truly serious about 'levelling up' this must include health and social care in our rural communities. The time for change is now."
30	Rural Health and Care APPG Inquiry Report - summary Author: All-Party Parliamentary Group (APPG) Date: February 2022	18-page summary of full report.
31	TED East Lindsey Full Evaluation Report Author: Report for YMCA Lincolnshire and Partners by Liz Price, Ivan Annibal, Jennifer Jackson, Jessica Sellick and Rebecca Herron Date: April 2021	61-page report. "This report presents the findings of a two year formative and summative evaluation of TED (Talk, Eat, Drink) in East Lindsey. The evaluation has been conducted on behalf of YMCA Lincolnshire by the University of Lincoln and Rose Regeneration."
32	TED Evaluation Summary Author: Report for YMCA Lincolnshire and Partners by Liz Price, Ivan Annibal, Jennifer Jackson, Jessica Sellick and Rebecca Herron	6-page summary of full report.

	Date: April 2021	
33	Still Me Project Report Author: Magna Vitae Date: Undated	10-slide presentation. “Still Me is currently part of a evaluation project which is being carried out by the University of Lincoln. The research aims to explore how people experience physical activity when living in the community with dementia.”
34	System_tube_map_v2 - Lincolnshire NHS Author: Unknown Date: Undated	Schematic of NHS Lincolnshire, using London Underground style map.
35 a-e	Case studies Author: Unknown Date: Undated	Individual case studies collected as part of the Still Me project Glenda, Dave, Joan, Peter, Sandra

Annex 2: Sector Definitions

Health and Care Sector as used in GLLEP Strategic Economic Plan and Local Industrial Strategy:

86101 : Hospital activities
86102 : Medical nursing home activities
86210 : General medical practice activities
86220 : Specialist medical practice activities
86230 : Dental practice activities
86900 : Other human health activities
87100 : Residential nursing care activities
87200 : Residential care activities for learning disabilities, mental health and substance abuse
87300 : Residential care activities for the elderly and disabled
87900 : Other residential care activities
88100 : Social work activities without accommodation for the elderly and disabled
88910 : Child day-care activities
88990 : Other social work activities without accommodation nec

Other Sub-Sectors related to Health and Care

21200 : Manufacture of pharmaceutical preparations
46460 : Wholesale of pharmaceutical goods
49319 : Urban, suburban or metropolitan area passenger land transport other than railway transportation by underground, metro and similar systems
49320 : Taxi operation
84120 : Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security
47730 : Dispensing chemist in specialised stores
93110 : Operation of sports facilities
93120 : Activities of sport clubs
93130 : Fitness facilities
93199 : Other sports activities (not including activities of racehorse owners) nec

Annex 3: References for Section 5

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