When I grow up, and as I get older…

Fairer chances and healthy choices for the people of Newcastle-upon-Tyne

Director of Public Health Report 2022

Contents

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With thanks to the Public Health Department, Newcastle City Council

Introduction

Despite its relatively small size, Newcastle upon Tyne is a city with a strong identity that is known for its proud and welcoming population nestled next to the beautiful bridges of the River Tyne. However, other thoughts you have about our city may vary greatly depending on your local experience or expertise. This means radically different views on living in this remarkable city exist, both between and about our 300,000 residents. These views are based on local history, topography and diversity, and bred from values of hard work, kindness and tolerance.

Newcastle can be accurately perceived as a place with beautiful homes in leafy streets just a short walk to the city centre, as an acclaimed, popular university spot for students, and a place where health professionals are world leading. It is a city with fiercely loyal NUFC fans, and, increasingly, as a creative hub for entrepreneurs, culture and the arts.

But for many both in and out of Newcastle, your reference points could equally be about the scale of our food insecurity, the high levels of unemployment or welfare needs, worsening child poverty, limited transport infrastructure and key markers of these deprivations including our burden of chronic illness, heavy drinking and drug-related deaths.

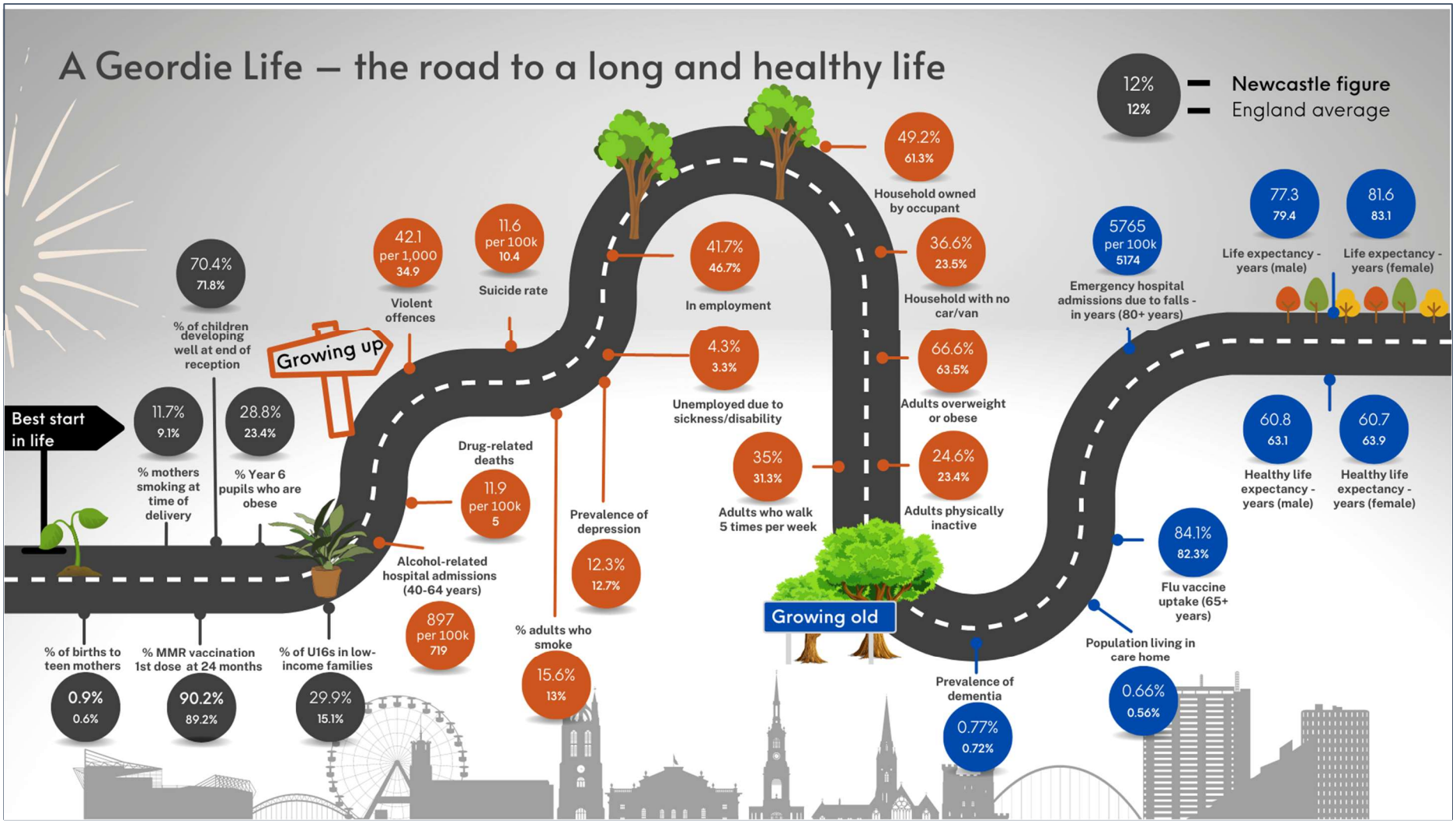
While these parallel characterisations may all be true, this range of life experience cannot be acceptable – not only because of the many assets the city hosts, physically, professionally and culturally, to enrich full and happy lives - but because of the impact these life experiences have in determining our residents' length and quality of life, often before they are even born.

For many, Covid-19 demonstrated the undeniable role that the social determinants of health play in our health and wellbeing and, rightfully so, there has been increased focus on inequalities and action to address these.

Our homes, our jobs and our social network all were, and are, the biggest predictors of not only how long we live but the joy and satisfaction we experience throughout it. While the memory of the pandemic fades for most, the lessons about the consequences of these factors and the effectiveness of our collaborative response, aligning social vulnerabilities and health outcomes, should not similarly diminish. Now more than ever, where there is a real risk of feeling bleak at the cost of living, public service instability and war returning to Europe, I feel it is important to focus minds on what can be achieved, and how through a public health approach, both health improvement and social justice can be championed and realised.

This report aims to reflect on the knowledge we have from evidence, data and community insights. It sets out the biggest opportunities to improve the health of Newcastle residents as they grow up and get older, focussing on the wider determinants of health, and taking action through local empowerment and leadership.

Lorna Smith, Interim Director of Public Health


A Geordie Life – the road to a long and healthy life
12%
12%
Newcastle figure
England average
Best start in life
Growing up
Growing old
70.4%
71.8%
% of children developing well at end of reception
11.7%
9.1%
% mothers smoking at time of delivery
28.8%
23.4%
% Year 6 pupils who are obese
% of births to teen mothers
0.9%
0.6%
% MMR vaccination 1st dose at 24 months
90.2%
89.2%
% of U16s in low-income families
29.9%
15.1%
42.1
per 1,000
34.9
Violent offences
11.6
per 100k
10.4
Suicide rate
Drug-related deaths
11.9
per 100k
5
Alcohol-related hospital admissions (40-64 years)
897
per 100k
719
Prevalence of depression
12.3%
12.7%
% adults who smoke
15.6%
13%
41.7%
46.7%
In employment
4.3%
3.3%
Unemployed due to sickness/disability
35%
31.3%
Adults who walk 5 times per week
49.2%
61.3%
Household owned by occupant
36.6%
23.5%
Household with no car/van
66.6%
63.5%
Adults overweight or obese
24.6%
23.4%
Adults physically inactive
Prevalence of dementia
0.77%
0.72%
5765
per 100k
5174
Emergency hospital admissions due to falls - in years (80+ years)
84.1%
82.3%
Flu vaccine uptake (65+ years)
Population living in care home
0.66%
0.56%
77.3
79.4
Life expectancy - years (male)
81.6
83.1
Life expectancy - years (female)
60.8
63.1
Healthy life expectancy - years (male)
60.7
63.9
Healthy life expectancy - years (female)

Newcastle's People

The people of Newcastle may be most well known for their warm and friendly nature and enthusiasm for the local nightlife, but the city is home to many different communities and individuals that are increasingly diverse. This is both an asset and catalyst for change. Understanding the transformation in Newcastle's population over the past decade, and differences during and since the pandemic, offers important insight into our local public health priorities. It shines a light on who our residents are, and their lived experiences.

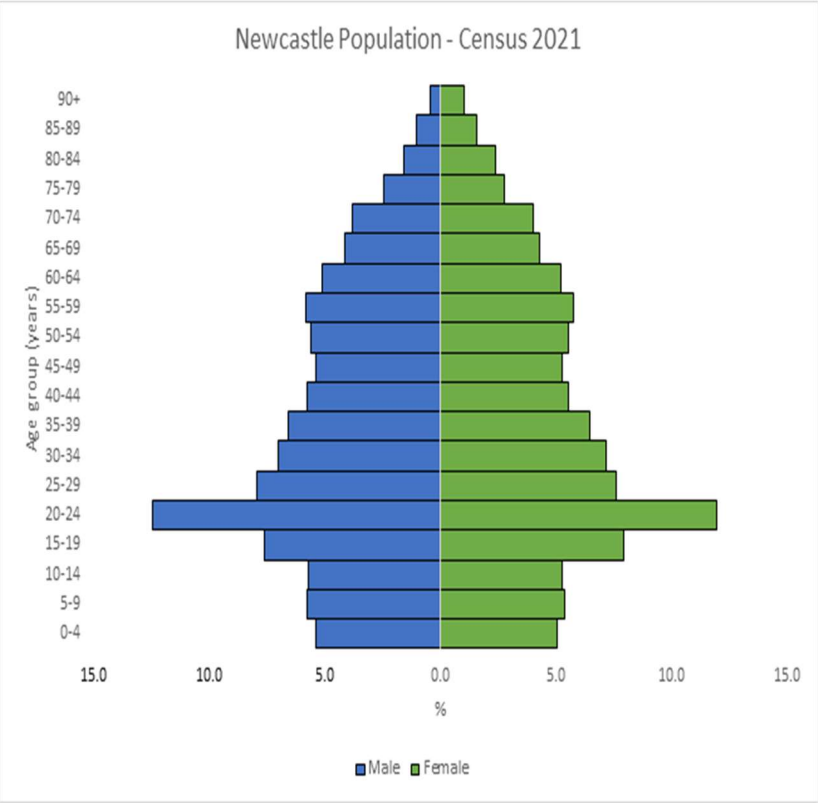
While our road map of a Geordie Life presents data averages of our residents regarding key public health indicators relative to England, it doesn't show the variation within Newcastle's population itself. The daily routines of individuals over their life course cumulatively determine their sense of value, security and control. From what they eat for breakfast and how they travel to school, to who they talk to during a day and how these things make them feel. Being valued, secure and in control are vital pillars of wellbeing and the self-efficacy that underpin healthy behaviours.

Importantly, in this report I do not want the people of Newcastle to be categorised by diseases or risk factors and so here we have looked at some key determinants of health of Newcastle's population such as their housing, social network, transport, and income to understand our public health priorities. While examining the patterning of health and health outcomes seen across our population, I have focussed on the social circumstances that reflect the varied lives led in Newcastle and the biggest opportunities to improve population health. The aim is to encourage a shared understanding of how experiences differ and why choices or expectations may diverge early in life, setting our residents on vastly different trajectories.

Public health approaches offer significant opportunities across all sectors to improve the lives of our residents, effectiveness of services and wellbeing of the workforce. Ultimately, a public health approach means using evidence, involving communities and promoting fairness. While highlighting parameters on our most disadvantaged residents may feel overwhelming to influence, this examination specifically directs us to areas for action because the inequalities themselves demonstrate that those gaps can be closed.

The latest Census conducted in 2021 provides an updated understanding of the demographics of the Newcastle population, as is illustrated in our population pyramid (chart 1). These data provide helpful context for an overview of our population and are used to inform service design and delivery and supports how we interpret our health outcomes. Overarching reflections show that there are just slightly more females than males, associated with a longer life expectancy in women, and a significant peak in the 20-24 age group due to the large student presence within the city.

From initial inspection we would expect this younger population to be healthy, free from the disease and disability associated with later life. Equally, we would expect to have high levels residents in employment, contributing to the local workforce, and families with children. This is a vital asset for productivity and innovation opportunities and a key attraction of the city, and we know many people who come to the North East to study remain life-long residents because of the quality of life offered here.



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Our profile also indicates areas where there may be particular health or social service demand for prevention and promotion focus, for example with a higher proportion of young adults we are likely have key opportunities to support positive outcomes during transitional periods (such as leaving school or starting university/ employment), with sexual health and fertility, suicide prevention, work with young families and substance misuse prevention.

However, the Healthy Life Expectancy (HLE) of Newcastle is significantly worse than the national average which means more of our residents experience chronic illness and disability at an earlier age – and, locally, we are an ageing population. Therefore, more working age people will have barriers in employment, and be at risk of insecure income. This impacts the number of dependants an carers in the city, which are characteristics closely associated with poorer health, and places increasing demand on public services.

As this report sets out, homogenising our residents by age and/or sex, offers little insight into our population and their needs because the lived experiences of residents vary greatly because of the inequalities that exist in our communities.

What our population pyramid demonstrates to me is that with a high number of young, working-age residents, we should be striving towards having one of the healthiest and most productive populations in the country.

[1] Our population pyramid shows the age and gender breakdown of Newcastle's population from the 2021 Census. With proportion (%) of males indicated in blue and females in green horizontally and the ages vertically.

A Toon of 100

Public health is underpinned by data describing protective factors that make us healthy as well as the burden of risk factors and disease across our population. Sometimes lots of numbers, especially large ones, make it hard to really keep in mind the real people and families behind the statistics, unless they refer to someone we know and the context of their lives.

Here we've imagined what Newcastle would be like if we were just a village of 100 people, where everyone knows one another and so perhaps had more insight and empathy into each other's lives and choices.

I hope that this can help us to think about social norms, by presenting facts rather than perceptions from only our line of sight.

Using a range of data available about who our population are and what some parts of their life are like we can see that there are some great assets, such as the amount of diversity in the city and specific indicators that benefit individuals like the high proportion with access to a garden.

Areas of more concern include the high numbers of people who are living in fuel poverty - not only impacting them during the winter but creating year-round household pressures and adding to our food insecurity burden; and the proportion of working-age residents with no qualifications, creating barriers to employment and self-confidence.

Through this report we explore these indicators further and what they mean for residents' health and wellbeing.

More than just statistics

One of the most important features of our residents' health and wellbeing is how they perceive themselves, not only internally but relative to others. This may not reflect material status, but more often will be a reflection on what people value, and therefore what affects how happy and fulfilled they feel. This is critical to the stigma or unfairness that they might feel which has huge implications, from physical access to support or the dignity they experience moving through their day. While epidemiological data underpins public health practice, these data only provide part of the intelligence required to shape and deliver effective action. There is no doubt our response to Covid offered protection to those most at risk - of either a clinical or social consequences – through our local engagement with our communities and their rich insights to interpret data in the context of their lives.

As set out across this report, people's behaviours reflect how they live their lives, and for many their behaviour has very little to do with safeguarding a long and healthy life. Because we believe that how people feel is the most valued data point of all, we asked our Community Champions, Newcastle Service User group and Recovery coaches what they thought of their health and living in Newcastle:

"Most days I feel physically and mentally ok, but I am less active and socialise less now than before Covid"

'...as a city we are at crisis point, without the capacity to meet the basic health needs of many our local communities'

"Cautious about saying this but reasonably good for my age."

I have a mental health diagnosis so sometimes normal life can be tough but I am able to lead a great and full life, it is just a bit tricky sometimes.

"I'm so glad to live in Newcastle, I feel like I'm with my family and community"

"Living in Newcastle is not bad especially in the summer as you can go to the beach".

In 2022, Newcastle was successful in our **Health Determinants Research Collaborative (HDRC)** bid to set up a new NIHR funded Unit focussing on the co-production of health with our residents by creating a platform to coordinate expertise and build research capacity on the determinants of health. This will inform evidence-based actions to address inequalities and targeted action across our settings and sectors, empowering residents to achieve fairer outcomes as well as developing our workforce and creating new, skilled jobs for the city.

Inequalities

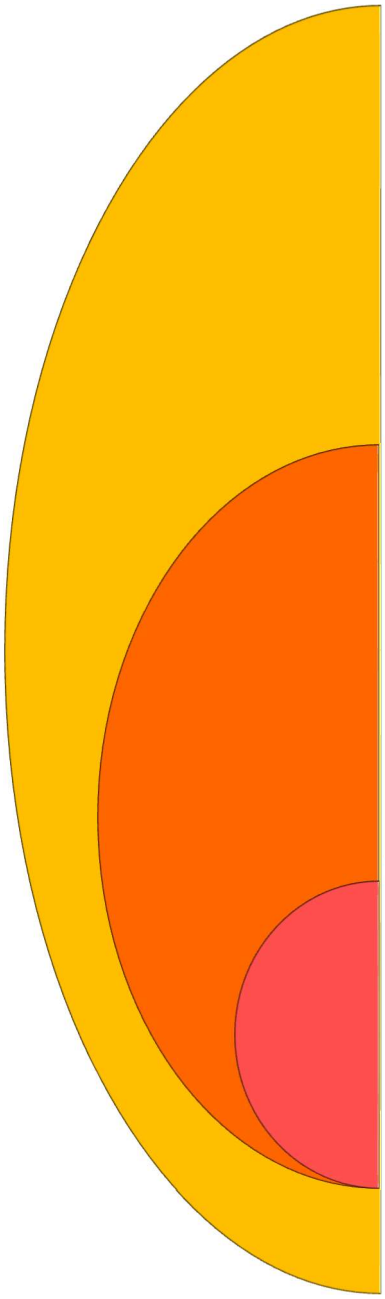
One of the few positives of the pandemic is the increased attention to, and awareness of, inequalities within both public and professional spheres. Unlike most health burdens in the western world, the overwhelming scale and rapidity of inequalities observed in the pandemic engaged people in a way that other public health priorities fail to, despite arguably having the same lack of social justice and preventative opportunities.

People living with clinical vulnerabilities and those more exposed through inflexible and unavoidable living or working conditions suffered the most. People could simply not ignore that deaths were patterned by occupation or access to vaccines, and that having a garden and working from home made it '*easier*' and reduced your risk, or that children's development was directly impacted by their home exposures. We all experienced daily, real-time comparisons and trends of health burdens and social crises that could not be ignored, generating an outpouring of compassion, and coordinated, shared action. I would argue that the same level of outrage and scale of response for non-communicable public health priorities is equally warranted.

We have all experienced how very specific or subtle consequences resulting from Covid guidance impacted our individual 'worlds' at each point in time, in terms of our household, our work, our expertise, and our family. At scale, this required expertise from across sectors and communities to navigate issues, shape solutions or raise concerns. Very often there were practical facilitators and barriers to safe behaviours, it was just a case of asking someone from that community or discipline and remembering health behaviours are often not primarily driven by health outcomes or active choice.

While it seems obvious that people can empathise with the stark differences in behaviours that access to clean water or being displaced by war may lead to, there is perhaps more scope for understanding regarding localised inequalities that harbour no less harm to health or our communities. Health and social inequalities for individuals are not only unjust but because they are, by definition, about status relative to others, they risk poorer mental wellbeing and stigma that can have generational impacts.

With a focus on inequalities there is an opportunity to harness the momentum towards collective efforts to engage with communities and utilise expertise across the wider determinants of health. Key to this is sharing data and joint planning. Using public health intelligence, we can identify and examine unjust variation associated with our health burdens and healthcare demand from a resident/ patient/ community perspective rather than that of a single service or organisation. Through matching data and expertise across sectors and ensuring community voices are empowered to coproduce solutions, we can start to understand the barriers and facilitators to healthy behaviours and outcomes. Locally, we've seen first-hand that understanding our vaccine uptake by digital exclusions, first language or whether individuals live in student accommodation has been more impactful in improving uptake than any call/ recall protocol could ever be for underserved groups.



The impact that social characteristics have on individual outcomes are strongly influenced by life circumstances and context in which people live, from the laws in place to cultural nuances. **Social inequalities** result from the differences in value, protection or opportunities associated with specific characteristics in any given place at both a macro and micro level. Therefore, this very often determines the agency and access to resources that each individual has. This can include many things that impact confidence, life experience and our social capital - from choosing to take on further education, accessing vaccinations or working from home during the pandemic.

Poverty/Income

Education/Employment

Housing/Household

Transport/infrastructure

Sustainable food access

Environment/Greenspace

Health inequalities are unfair, preventable differences between different population groups' health and health outcomes. These result from the social inequalities people experience over their life course which shapes their sense of control, interactions with others and exposure to normalised behaviours, both healthy and unhealthy. Cumulatively, physical, mental and social experiences lead to increased risks of preventable disease and premature death for those with particular social characteristics and this is why we see the social patterning of specific morbidity in our population.

Healthy Life Expectancy

Smoking prevalence

Life expectancy at birth

Adult and Child Obesity

Rates of Cancer and CVD

Excess Winter Deaths

Healthcare can include opportunistic advice from health professionals, screening and immunisation for healthy people, and treatment and care for poorly people. **Healthcare inequalities** arise when the access to the same health information, treatment or support is not available to different communities because of how services are designed and delivered. How easy or hard it is to navigate and access services will differ depending on your social characteristics and health; this is why proportionate and locally-informed interventions are essential to prevent underserved communities being disadvantaged.

Access to GP Services

Contraception rates

Immunisation rates

Continuity of maternity care

Screening uptake

Late Cancer Diagnosis

The Cost of Living is affecting us all, but not all the same

It would be remiss to not include the Cost-of-Living crisis within a 2022 report on public health for Newcastle. As set out throughout this report, health and wellbeing are not only closely associated but are determined by poverty. Many of our population have been coping with chronic poverty and poor health long before the latest pressures have been amplified and brought to the forefront of public attention. Locally, we have also seen many people have found themselves new to financial worries or pressures and this in itself has created challenges in navigating welfare and support, as well as worsening public mental health from the stress - further to the health risks of coping mechanisms such as skipping meals, living in the cold or gambling to increase cash flow.

Our city, and the cooperative community that served us so well during Covid, has responded to consider the impacts on residents and implemented targeted and universal support across the city, from specialist services who know those most at risk of crisis or settings such as schools being aware of how financial worries may present in different households. For some people this may mean being out in public settings more often to avoid heating their home, and our network of Wellbeing Hubs have created a chance for people to access local services while benefiting from social connections and access to resources or activities, such as digital skills and cookery classes.

While food insecurity and fuel payments for those on pre-payment meters dominate much of acute service demand, there are clearer wider implications that these late markers of poverty are directing action toward that ultimately make people feel worse and is harming their health. The reality is that asking for help is really hard, and people often will try to cope and be self-sufficient long before problems could have been shared or addressed and it can often feel overwhelming to know where to start. While there is more detailed work needed to consider the response to the cost of living and what this says about the quality of our housing or financial control residents may have, key to early intervention and prevention is addressing the stigma and judgement associated with poverty.

With an understanding of inequalities, services should consider their customers/ service users from the perspective of having potentially multiple services involved and little sense of control, which in itself can be disempowering and create shame or stigma and is likely to mirror experiences they have about other parts of their life. While services are under extreme pressure, working together to provide a system response that is addressing unmet need through targeted action and community insights offers opportunities to minimise and mitigate much of the social harms of poverty and generate efficiency.

Key to empowering communities and co-producing health is how services engage. People may not remember all the details or events that happened to them, especially during a period of challenge or distress, but they will remember how they were made to feel.

Food is more than a parcel of ingredients

In Newcastle, like elsewhere, the challenges in the food system are many: rising obesity, food poverty, sustainable supply issues, the impact of food production and distribution on climate change; and economic challenges for local food businesses. In Newcastle, we have over 16,000 children receiving Free School Meals (FSM) and over 40,000 residents who use our network of Food Banks.

Addressing these challenges will require new creative partnerships across organisational boundaries. It will require communities to be better equipped with the tools and confidence to take control of their own health and happiness. Good Food' underpins the quality of people's lives. Not only is it essential to our survival but the way we eat it, buy it, grow it, transport it, and dispose of it has a profound impact on the city we live in. The quality of our food can change the landscape of our city, the strength of our economy, the health of our community, the environment and our cultural and social lives.

Promoting 'Good Food' is a powerful driver and must be embraced at the heart of any effort to improve people's lives and the Food Newcastle Network plays an important role in bringing people together to enable this to happen.

Food Insecurity is not about being able to buy food and drink but should be considered more broadly about limitations in access to food that is nutritious and sufficient in quantity. Food insecurity encompasses:

Locally, our focus has been developing a whole systems approach to healthy weight. With two-thirds of Newcastle adults overweight or obese, and sharply rising rates of childhood obesity, a preventative approach offers the only affordable opportunity to change course because of the scale of impact needed.

The Food Newcastle Network has six key themes, structured around our Good Food system priorities and engaging multidisciplinary partners to progress action. These include:

- Diet-related ill health and access to food
- Good food for all – tackling food poverty
- Building community knowledge, skills and resources
- Strengthen the local sustainable food economy
- Transforming catering and food procurement
- Environmental sustainability – reducing waste and the ecological food footprint.

- Unaffordable access to nutritious food (which can also include high concentration of exposure to unhealthy food including take aways).
- Unfit household kitchen conditions or equipment to store, prepare and cook
- Physically being unable to carry shopping or have sufficient transport links or social support
- Not having food that is suitable for cultural or restrictive diets
- Having a lack of confidence or skill in cooking and preparing meals
- Having stability in access and supply of food from a sustainable source

Healthcare Inequalities

Health outcomes, and the injustice of patterning in deaths or disease, are often the key markers used to instigate action to redress failings which often lead to the scrutiny and reallocation of health services, structures and services. However, these indicators are more helpfully inspected through a public health approach within the whole-system context. This requires all health outcome data to be examined from causes and risk factors at a population rather than an individual patient or service perspective in order to allow for the greatest scale of impact to be made in terms of both improving population health and cost-effectiveness.

Using data to understand why some patient groups consistently have late diagnoses, or don't benefit from the protection of immunisations, is a key component of contemporary clinical care to address equity and efficiency, especially with current pressures. Through a public health approach with a focus on 'unwarranted variation' between patients' healthcare experience, services can be supported to look at potential facilitators and barriers in the design and delivery of pathways from the lens of specific communities. While presenting data variation between communities or population groups alone could, and has, led to assumptions about a lack of interest in health protection or treatment from particular groups (or worse, stigmatisation) these data should carefully be handled within a community engagement framework so that the data is interpreted meaningfully with insight and expertise – bearing in mind behaviours are often not primarily attributed to health values but social parameters. It is clear our whole-population health improvement is needed to alleviate the pressure from preventable illness and admissions. Through understanding the determinants of health and overarching consequences of poverty, we know that in the main this cannot be achieved by health services and requires key actors who impact our economy, community safety, education and neighbourhoods to participate in the creation of health and health equity in their design and delivery.

Although the scale of improvement required directs efforts towards primary prevention and the ambition for every local health system should be that our residents don't become patients at all, there are clear quality improvement opportunities to be made in improving patient experience, safety and treatment outcomes. While providers of healthcare remain under enormous, unsustainable pressure to just cope with the demand on their services as a whole, there are significant gains to be made by examining the differences within patient groups, or healthcare inequalities, when we look at the disproportionately higher use of health and social services from some residents relative to the poorer health outcomes they experience.

As we have seen in our local Covid-19 vaccination programme, when disciplines and communities come together to mobilise a public health approach to healthcare access, proportionate resources can be effectively allocated based on intelligence and insight to improve equity in vaccine uptake, improve community health literacy and generate wider opportunities to understand local priorities and behaviours.

While health professionals have an important leadership and advocacy role to highlight the burden and patterning of their caseloads, they are often limited in their scope of influence to make the changes required at a population level. Where there are key opportunities for the health service to directly reduce inequities between patients is in the healthcare access, experience and outcomes of our residents, attributed to a range of complex factors including:

- Coproduction of service design, delivery and evaluation (universal and targeted interventions)
- Integrated data analysis and shared outcomes across organisations (and thinking about those who aren't services users and why)
- Raising public health literacy (across residents, settings and professionals)
- Workforce training and development (to understand inequalities and health improvement in practice)

People are not hard to reach, they are underserved

If people aren't engaging with services or aren't engaging in the way services intend or prefer, there is a strong likelihood that the individual is in difficulty and requires attention and support of some kind. Although the response they yield from their behaviour may not be effective, it should not result in them being discharged or excluded; it should be interpreted as a marker for unmet need.

These are often the residents who would benefit most from appropriate support being offered and who have the most experience of services not meeting their needs and feeling a lack of control over their lives. Our challenge is the shared responsibility for understanding and addressing what those needs may be.

If we (as a system) seek to understand their circumstances and barriers, services become more efficient, staff become more satisfied and individual outcomes are improved, in the broadest sense of health and wellbeing. That is why building trust with individuals and promoting health literacy, often through non-clinical engagements and settings, is key to successful impacts.

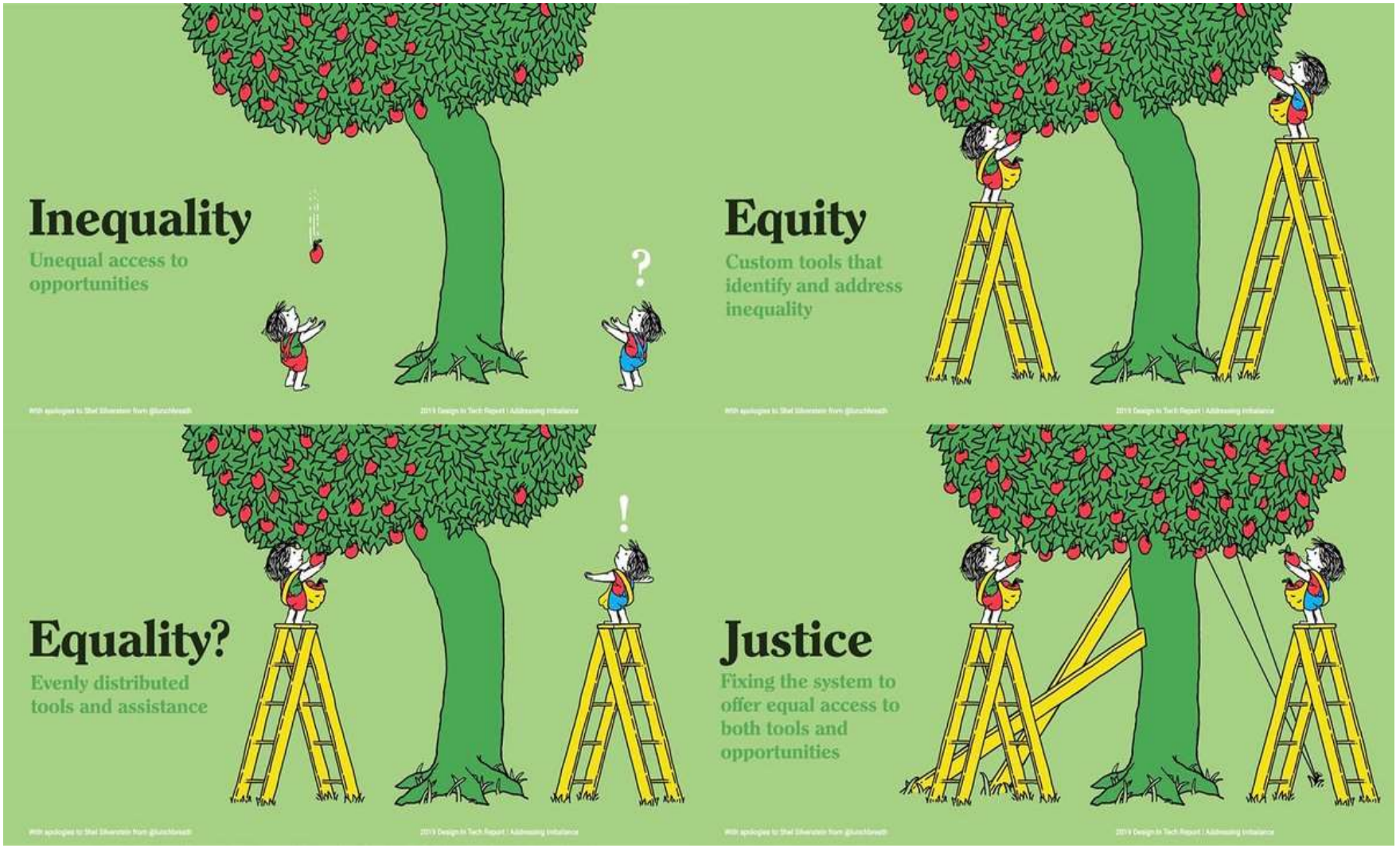
Services need to be supported to think about not only how residents or patients may fit *their* specific service criteria but to seek out knowledge and understanding of the services in the local area. To achieve this there must be adequate resourcing and incentive to allow providers to jointly plan and develop services and share data analysis across varied characteristics and outcomes, based on the evidence on inequalities, risk factors and behaviours.

The worst form of inequality is to try to make unequal things equal.
Aristotle

To achieve fairness, our systems must recognise that individuals, communities, and families do not have the same starting point, choices, or control over their lives because we know that the context and circumstances strongly influence all behaviours and subsequent outcomes.

To reduce the steepness of the social gradient in health, actions must be universal but with a scale and intensity that is proportional to the level of disadvantage (Marmot, 2010)

Tailoring and targeting different policies, support, or services, proportionate to need is essential to prevent and address inequalities and stigma and although not easy, this using evidence and local insights, can prevent and reduce further inequalities.



[2]

[2] The 2019 Design in Tech - Addressing Imbalance, 2019

What are we poorly with?

Perhaps now more than ever, and even during the peak of Covid-19, the importance of health service capacity and resource has been brought to the forefront of our minds in 2022 through the health system pressures resulting from the pandemic backlog, workforce shortages and associated healthcare inequalities, all in the context of decreasing living standards and declining public mental health.

While Newcastle benefits from highly skilled, revered health services, our local system has a range of pressures that can be attributed to the complexity of health and social inequalities in our population and how local services are designed and delivered to meet the proportionate needs of our residents through both universal and tailored provision.

These five conditions reflect not only the greatest burden of disease on our population but should be considered in the context of an individual's life[3]. A large proportion may have two or more of these health conditions and with any chronic condition comes the burden of worry and lower wellbeing, regular appointments and/or medication, sickness absences from work or school and limitations caused by secondary complications. Additionally, these data signal the diseases that are causing persistent pressure on our local primary and community health providers and, indicate the population risk factors for more serious and acute illness, are closely linked to current and future pressures on our emergency and secondary care services.

With the exception of depression, the most prevalent physical health conditions are associated with risk factors from everyday behaviours such as what we eat and how we spend our time, for both necessity and recreation. More specifically, these conditions are associated with diets in high salt and sugar, low levels of physical activity and exposures to tobacco and high levels of alcohol. Encouragingly, these risk factors are supported by strong evidence on healthy guidelines and there are significant gains for individual patients and health service capacity in embedding and expanding secondary prevention. However, because of the

Newcastle's most **common chronic diseases 2022:**

- Hypertension (high blood pressure) 13.6%
- Depression 12.3%
- Obesity 12.1%
- Non-diabetic hyperglycaemia (pre-diabetes) 7.2%
- Diabetes Mellitus 7.1%

[3] Source: NHS Digital Quality Outcomes Framework data 2021-22, amongst the adult (aged 18+) population of Newcastle registered with a GP

prevalence and distribution of these conditions, and scale of impact needed, we know that these risk factors specifically reflect the challenges faced by our communities to reduce their risks. These include barriers in access to affordable, healthy food and over-exposure and easy access to alcohol, unhealthy food and, for some communities, tobacco or attitudes towards active travel.

While depression may seem potentially set apart from other common causes of illness, evidence-based interventions to treat depression include many of the same risk factors and treatments alongside more specific talking therapies and medication used in moderate and severe cases. These include regular physical activity such as walking outdoors, reducing levels of alcohol, stopping smoking and having a healthy diet. Of course, because of this some residents will have a number of these conditions which will interact and influence each other and may lead to secondary outcomes such as chronic pain, anxiety or disability. Both prevention and treatment interventions for these conditions highlight the close and important link between physical health and mental wellbeing, and both individually and collectively demonstrate the consequences of the social determinants of health through the social patterning of prevalence.

Page 19 provides some key details about hypertension, obesity and non-diabetic hyperglycaemia, with a more in-depth looks at diabetes and depression on pages 33-36.

Hypertension (known as high blood pressure) is when an individual's blood vessels consistently have raised pressure. Hypertension is often asymptomatic and diagnosed through blood pressure measurement by a GP.

The burden of hypertension is greatest among individuals from low-income households. Hypertension affects 1 in 4 adults in England, although more than 5.5 million people in England are undiagnosed. Your risk increases with age and with specific ethnicities (Black African or Caribbean), with more men than women at risk.

Hypertension is one of the leading modifiable risk factors for developing cardiovascular diseases (CVD), if left untreated. This can lead to angina, heart attacks, heart failure, stroke, kidney damage, renal failure, and vision loss.

Getting support and education to make healthy lifestyle modifications can maintain healthy blood pressure and lower the risk of hypertension. Maintaining or working towards for a healthy weight is key to this, so behaviours involve eating a balanced diet, consuming less salt and saturated fat, regular exercise, and reducing alcohol and tobacco

Obesity describes a high body mass index, or excessive body fat, which relates to an energy imbalance. It is a complex disease and is a global public health priority, for both adults and children, with those within deprived areas at a significantly higher risk.

Certain population groups within society are disproportionately affected, including some groups within Minority Ethnic communities or people with specific disabilities.

Obesity can cause a reduced quality of life, with joint pain and levels of tiredness. It impacts mental wellbeing, confidence and increases risks of depression. Longer term obesity is a risk factor for chronic diseases including specific types of cancer, including breast and bowel, Type II diabetes and cardiovascular disease. As such, obesity can reduce life expectancy and is associated with premature mortality.

Action on obesity requires a whole-system approach, targeting food poverty and quality as well as our build environment. Reducing the risk of obesity requires a healthy balanced diet along with regular physical activity and these can be really challenging if you experience food insecurity and have cheap, easy access to processed foods, sugary drinks and alcohol.

Non-diabetic hyperglycaemia is when a person's blood is higher than normal but below the threshold to be classed as diabetes. It is often referred to as 'pre-diabetes' as it is a precursor to developing Type II diabetes.

This can affect anyone but the risk is increased if you live in deprivation especially for men, those over 40, if you're overweight or have high bloody pressure, have a family history and from Asian or Black background..

The symptoms can include increased thirst, needing to urinate more frequently and fatigue, however many people do not experience any symptoms, and in these cases, it is detected by a blood test. If a person has non-diabetic hyperglycaemia, their main health risk is developing Type II diabetes and the associated health risks such as cardiovascular disease, vision impairment, nerve and foot problems.

As with hypertension and obesity, supporting people to have healthier lifestyle behaviours through secondary prevention can reduce the risks of more serious health problems associated with diabetes. This includes enabling and promoting physical exercise, a healthy, balanced diet and losing excess weight to lower blood sugar levels.

What is shortening our lives?

Public health is centred on taking evidence-based actions that can modify outcomes to improve population health and prevent inequalities. This should focus our efforts on areas where differences to health outcomes can be made, and in particular where there is social patterning in the health outcomes that are unfair and preventable.

Premature mortality (defined as deaths occurring before the age of 75) is a vital indicator to direct public health action because these data show, at a population level, the consequences of our cumulative life experiences. Given the largest burden of premature mortality can be attributed to chronic conditions which are closely associated with deprivation, it also means that the known population risk factors can be modified through interventions as this is, by definition, premature death.

Here I have looked at Newcastle's five most common causes of premature mortality[4]. These causes of premature deaths illustrate the impact that specific and reoccurring risk factors have on life expectancy, namely tobacco and alcohol.

As with all population data, the patterning of population groups who represent these number are the focus of public health practice. For example, although lung cancer prevalence is higher in men overall, there are a higher proportion of premature deaths from lung cancer that affect women compared to men. More specifically, premature deaths from lung cancer are responsible for 23% of deaths of females aged under 75, compared to 10.9% of deaths of males in the same age group. This is complex, because men have a greater risk of premature mortality overall, and there are more of these common causes that men are at risk of. This is associated with a range of multifaceted influences including higher levels of substance misuse and lower levels of health-seeking behaviour.

Newcastle's most common causes of premature mortality 2022:

- Ischaemic heart diseases (15.1%)
- Cancer of trachea, bronchus and lung (12.6%)
- COVID-19 (8.3%)
- Cirrhosis and other diseases of liver (8.1%)
- Accidental poisoning (7.0%)

[4] Mortality statistics from the ONS show that the five most common causes of death for the Newcastle population aged under 75 years in 2021 were as follows (percentage of total deaths amongst this age group shown):

Plainly, more people from deprived communities die before the age of 75 and more of them will have been poorly or had a low quality of life from years prior to their death. But within these data we can also identify specific groups more at risk in order to direct preventative opportunities and allocative efficiency of resource. This can include looking at the stage of diagnosis, for example is it later in particular groups? If so, is this a health literacy issue or a lack of evidence or service design barrier? Are there specific occupational groups where people are more at risk that new policies or guidance can better protect? Or is legislative leadership required to protect groups more at risk from harmful risk factors? More often that not, all of these aspects offer opportunities for improvement.

Each of these lives could have been longer and happier. For some people deaths from these causes will feel unlikely for them and their loved ones, whereas others may feel a shortened life is expected.

Covid-19 did present a somewhat unique situation where the tragedies were so wide ranging that almost everyone experienced loss, but we must reflect on the social patterning in Covid deaths seen in groups by occupation or ethnicity and vaccination status and consider the individual control and barriers to address these which requires sharing data and collaborative action.

For the scale required, action on the wider determinants to prevent these harms will ultimately save more lives. The progress that has been made through tobacco control has demonstrated the value of long-term commitment to prevent unjust harms that are well established in evidence at a structural level. But for those with a diagnosis or who have risk factors for these preventable conditions, there are opportunities for brief advice, education, informed choice and lifestyle interventions, often many years before the first signs and symptoms appear. These health improvement and secondary prevention actions should be the cornerstones of a modern quality health service that is entrenched in non-communicable disease, alongside key partners in the Police and social care services experiencing different burdens from the same causes.

Learning from Covid

During 2022 our local Living with Covid plan was developed through collaboration from professionals, services and residents to capture our achievements and reflect on the experience of the pandemic in order to allow us to move on, safely and fairly, within lessons learnt.

This process highlighted the incredible skills and expertise across the city that contributed to Newcastle's comprehensive and compassionate response to residents in need. The approach particularly demonstrated the importance of health protection resilience, universal awareness of prevention and control principles and public health analysis.

In 2022 we established a Health Protection Assurance Board for Newcastle, with key local authority, NHS, UKHSA and community partners with responsibility for coordinating actions and addressing inequalities on communicable disease control, emergency preparedness, environmental public health, and embedding ongoing Covid-19 control as a key part of its approach. Early priorities for this work will focus on targeted uptake in screening and immunisation programmes and continuing to support complex settings with our most vulnerable residents.

Linked to poverty and the current cost-of-living crisis, creating cold homes and disincentives to be absent from work or school when symptomatic, we will continue to promote the key principles of preventing and reducing respiratory illness to protect groups more at risk such as older people, pregnant women, young children and those who are immunosuppressed.

Taking services to communities

Transport, time and familiarity are some of the biggest barriers to accessing health services for our residents. Not attending or engaging with services is often to do with the pressures of life from multiple jobs, caring responsibilities or might be feeling uncomfortable in clinical environments. Newcastle's vaccine outreach team created during Covid demonstrated the power of taking services to residents, speaking to them to support vaccine uptake and reduce inequalities in the protection they offer. Over the pandemic the team have done some fantastic work with excellent outcomes in our most underserved communities. Through targeted outreach informed by real time data and community advocates, the team increases knowledge about vaccinations to promote informed consent within the underserved communities prior to clinics. This includes responding to concerns and barriers from residents, providing written and a city-wide partnership website. Clinics are then scheduled at times and locations informed by the communities. The outreach team have supported pharmacies to increase vaccine uptake and ensure the clinics run smoothly.

The team have worked with Asylum Seekers and Refugees across Newcastle to support Covid vaccinations by gaining trust, myth busting and listening to what the cohort requires. Part of this was done within the N.E.S.T project at Newcastle university; the project offers study and support for refugee and asylum seekers.

With such success, colleagues are now developing an adapted outreach model to create health improvement opportunities through a roving model that will offer opportunities for education, awareness raising, vaccinations and sexual health advice in targeted areas.

Who is poorly?

The people impacted by poor health, chronic disease and shortened lives are, of course, the focus of public health action because of our primary focus on health inequalities and health improvement. The health burdens suffered by the majority of our residents are not inevitable or arbitrary, they are regrettably predictable, consistently patterned across the same community groups who experience social inequities. Correspondingly these key characteristics - the determinants of health – collectively also hold the key to change because the inequalities themselves demonstrate what is possible health and wellbeing.

The people impacted by the top five causes of illness and premature death are the same people and families because of the cross-over of risk factors, experiences and beliefs held within the micro-community of our immediate household and social network. While this has always been the case throughout history for every society, i.e. those with the most access to resource always have the healthiest lives, one thing is clear: people shouldn't accept poor health or a shorter life span for themselves or for their children, if we know that it is preventable.

From primary prevention protecting health and promoting healthy behaviours at a local level to ensuring effective treatment and care, there is a role for all sectors to contribute to and benefit from, a fair and healthy population.

In this part of the report, I have featured six public health priorities, examining the opportunities to understand and influence outcomes as well as highlight areas of progress through public health practice across a wide range of sectors and skills. These include:

Determinants of health – Childhood and Work

Health Behaviours – Alcohol and Smoking

Health Outcomes – Diabetes and Depression

Primary Prevention – preventing people for getting unwell e.g. vaccinations, smoke-free public spaces, road traffic speed limits, age limits on gambling

Promotion – creating spaces that encourage and support positive lifestyles e.g. pedestrianised streets, workplace wellbeing policies, family hubs

Early Intervention – identifying illness at an early stage to improve outcomes and minimise harms e.g., screening, health checks, antenatal care

Secondary Prevention – managing conditions to prevent risk of complications or more serious illness e.g. stop smoking service, patient education

Quality of Life - physical, emotional and social well-being to support wellbeing within treatment care packages e.g. pain management, peer support groups, palliative care

Behaviours result from experiences, exposures, cultures, expectations and opportunity i.e., social risk factors. Some behaviours can lead to other related or more harmful behaviours associated with a change in perception of risk, self-efficacy, or peer group. It may directly result in a change in circumstances because of decreased health and wellbeing.

Most people don't set out to harm themselves or their loved ones and motivations for behaviours differ and are often determined subconsciously from necessity or coping mechanisms. Over time, just grabbing the fast food, or smoking with friends or relaxing with a drink to get better sleep leads to the unintended poor health consequences of these cumulative behaviours.

This is why seeking to understand behaviours hand-in-hand with communities informs evidence that will give more specific, meaningful guidance to support health improvement free from stigma or assumption.

Health Determinant	Health Behaviours	Health Outcomes
		
Poverty **Employment/ Education** **Socially isolated** **Poor quality housing** **Dependants**	**Smoking** **Inactivity** **High salt and sugar diets** **Substance misuse** **Poor sleep**	**High Blood Pressure** **Obesity** **Depression and anxiety** **Diabetes** **Chronic Lung Disease**

HEALTH DETERMINANT: Childhood

Almost two in five children in the North East (38%) are living in poverty which rises to almost half (47%) in a household with a child under 5 years old. Both are now the highest rates of any UK nation or region, with the North East experiencing by far the steepest increases in child poverty in the country in recent years. In Newcastle, 14,646 (28%) children were living in relative low-income families in 2018-19 and over the past five years there has been a consistent and marked increase to one of the highest rates in the country. Wards that have a high proportion of children in poverty are clustered around the central area of Newcastle and include Byker, Wingrove, Benwell and Scotswood, Walker, Elswick, and Arthur's Hill. This means that more children in Newcastle experience educational barriers, food insecurity, safeguarding risks, poor quality housing and illness compared to other areas of the UK. Because of the strong association between poverty and health and social outcomes, this has significant implications for the health and economic prospects of our next generation and future public service demand.

Despite widely accepted evidence on effective interventions to support young families and the benefits to both individuals and communities when we invest in the early years, structural challenges remain in place to address these inequalities. **Children and Families Newcastle**[5] offers significant opportunity for coordinated action to enable both universal and targeted action to prevent and mitigate some of the consequences of poverty on our children and young people, such as complex areas like increasing uptake of Free School Meals in those eligible.

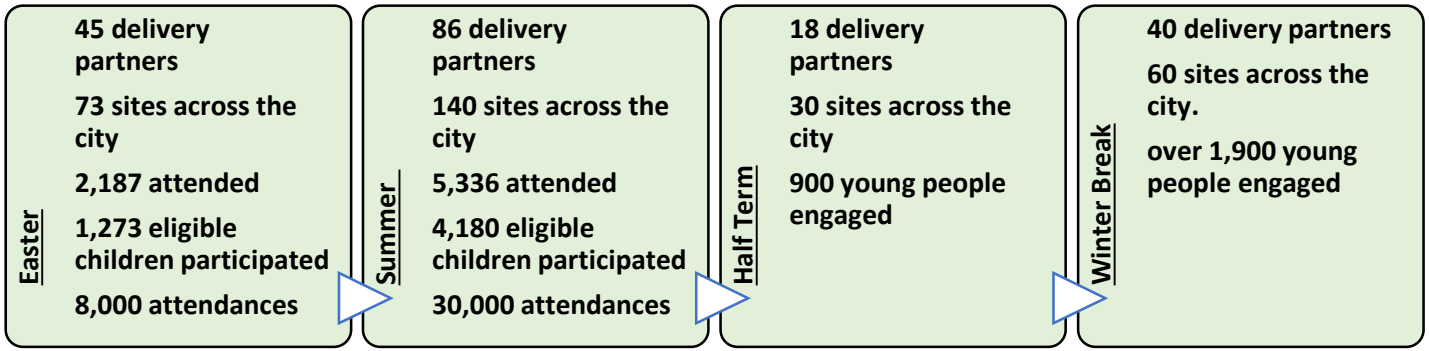
The level of FSM eligibility in 2020 was 28.2% in England, whereas in Newcastle this was 31.8% which equates to 16,500 children in 21/22 and is expected to increase to around 17,000 in 22/23. FSM are a key intervention in supporting school-age children access healthy, regular meals Monday to Friday. Due to barriers such as childcare costs and affordable healthy food, holidays are pressure points for families which can lead to a holiday experience gap – with children living in poverty are less likely to access organised activities and more likely to experience 'unhealthy holidays' in terms of nutrition and activity and social isolation and accidents.

Free holiday clubs are a response to this issue and evidence suggests they positively impact children and young people. They work best when they provide consistent and easily accessible enrichment activities, with more than just breakfast or lunch, and when they involve children (and parents) in food preparation. Newcastle HAF has succeeded in reaching children who are eligible for FSMs through city-wide provision of wide-ranging activities for children aged 5-16. While the programme does provide each young person with a healthy meal, promoting healthy eating, food educational skills and learn-to-cook opportunities, it also connects children to trusted adults, new experiences and local facilities that benefits them and their families or carers.

[5] Children and Families Newcastle is our local integrated approach to ensure services and support are accessible to children and families

Holiday and Activity Food Programme

Our local team have focussed on continued engagement with schools looking to involve them in either more direct delivery or opening of facilities for wider community use or facilitating access to pupils in receipt of FSMs. This is in addition to widening the SEND provision and targeted teenage provision. Three Summer pop-up events were also held in communities, linking with the coordinated city-wide summer offer including working with our Family Hubs and a Girls Only festival with key partners that support and promote sessions for women and girls.



Our HAF activities include:
Learning to cycle, dancing and outdoor skills including bushcraft, gardening, climbing, water sports.

Trips & days out – Centre for Life, dance shows, beach/ camping trips, Commonwealth Games-Camp Birmingham festival.

Active learning & coaching experiences for teenagers; Youth-led activities; and Volunteering and training opportunities.

Our HAF approach recognises the challenges facing children, young people and families living in poverty. What we found this year, was a clear demonstration of the collective strength of response from the City of Newcastle and the community organisations. The ability to match this collective spirit to help people in the city with our expertise, settings and funding though HAF, meant the network of delivery partners could be mobilised quickly to deliver successful and much-needed programmes over the Easter, Summer and Christmas holidays that children, young people and families want to engage in. Providing healthy and nutritious meals, fun physical activities, places to be social and feel safe, with opportunities to take part in enriching activities supports the development of resilience, character, and wellbeing along with their wider educational attainment. There is strong evidence this also benefits parental mental wellbeing and reduces stress.

Through the design of our local programme, we have strengthened our food insecurity infrastructure by offering providers access to a range of food support services to projects such as Fareshare membership; information and resources like Eat Well, Sugar Smart guides, and upskilled the workforce through targeted food education sessions to promote best practice. Similarly, to provide additional support for families impacted by the acute pressures of cost-of-living crisis we created local offers over the October half-term and Christmas holiday period.

HEALTH DETERMINANT: Work and employment

Not only is employment important due to the established relationship between poverty and ill health, but work – in itself – is good for people's health. Work and health are central to the story of people and place. Work gives people a social network, confidence and a sense of purpose. As we saw during the pandemic, employers are in a unique position to promote wellbeing far beyond the fundamental benefit of a secure income. As the importance of 'good' work to build communities is increasingly recognised, a public health approach to support employers and employees can address barriers to recruitment, career pathways and improve health outcomes in workplaces and organisations.

The Better Health at Work Award (BHAWA) recognises the efforts of employers in the North East and Cumbria in addressing health issues within the workplace and can support them to enhance and develop this. The award scheme is free and open to all employers regardless of size, location or type of business. Around 60 Newcastle workplaces currently participate in the award including 11 from primary care and the local authority. Many organisations already promote healthy lifestyles and consider the health of their employees; however, a dedicated workplace health lead in Public Health supports organisations who sign up to the award which helps to create a healthy workforce. The award is used as a mechanism to promote key public health campaigns and messages and enables local people to lead healthier lives by making healthier choices.

Case Study: Moving More at work

With Sport England's support, we have collaborated with some BHAWA businesses including Stagecoach, NUTH and Newcastle University to understand reasons for people in routine/semi-routine employment to be more physically active. Evidence highlighted individual and organisational barriers, including employees having very limited decisions over their terms and conditions and little influence over making policy or system changes.

Our current work with Stagecoach's two Newcastle depots, based at Walkergate in the east and Slatyford towards the west of the city involves working with NUFC delivering 6 weeks of walking football and mental wellbeing workshops. Stagecoach continued to play walking football until October 2022 and are exploring indoor premises and other activities. Seeing the benefits to staff, they are now keen to roll out similar programmes to other depots.

Having not played football for 15 years G was still interested in opportunities to play but his fitness meant that these were a challenge for him. The walking element encouraged him to join in as well as the camaraderie, he's found that he is getting a cardio workout so even takes part in sessions on his days off.

M found adapting to walking a little challenging, but enjoyed it because he likes meeting people and, as he is older he considers himself to be an example to others who may not know how to fit sport into their lives.

Areas for improvement

While work, and certainly good work, benefits health, being unemployed additionally harms it. More specifically, unemployment is associated with higher levels of chronic disease, cardiovascular diseases, poor mental health, and unhealthy lifestyles. One of the key barriers for employment can often be social connections - almost all young people's first job is through someone they or their parents know, or at least the result of support and guidance in how to apply from an older sibling or trusted adult.

Similarly, proximity and flexibility are hugely significant in accessing employment, and that is why transport infrastructure, affordable caring responsibilities and workplace inclusion are so important.

Newcastle is worse than the national average for employment figures for some groups, including:

- **41.7% of people aged 16 years+ in employment (compared to 46.7% in England;**
- **3.4% of people aged 18-64 in receipt of long-term support for a learning disability that are in paid employment compared to 5.1% in England;**
- **4.3% of people in Newcastle are unemployed due to sickness or disability compared to 3.3% in England.**

Addressing persistent unemployment and employment inequalities will increase the number of our households with secure incomes, raising living standards and improving long-term health and quality of life.

Helping people with health issues to obtain or retain work and be happy and productive within the workplace is a crucial part of the economic success and wellbeing of our communities and can reduce social exclusion and isolation.

The percentage of the population with a physical or mental long term health condition who are in employment (aged 16-64) is 55.4% in Newcastle and 65.5% in England. With workforce pressures across the country and locally, there are opportunities for us to work with employers and residents to support employment for people who may have long-term conditions through often pragmatic and proactive reasonable adjustments that promote attendance and improve wellbeing.

Tackling the two largest causes of health-related unemployment and sickness absence; musculoskeletal conditions and mental health can increase the employability rate.

The remarkable adaptions of many 'workplaces' during Covid demonstrated how many roles and disciplines could be changed to accommodate incredibly restrictive parameters but created many benefits for work-life balance and reducing costs or the locality of expertise. Learning from this and how the barriers were overcome during Covid to support work and productivity can offer insights into the innovation that can occur with shared commitment and collective goals such as reducing workplace absence and increasing recruitment in key sectors.

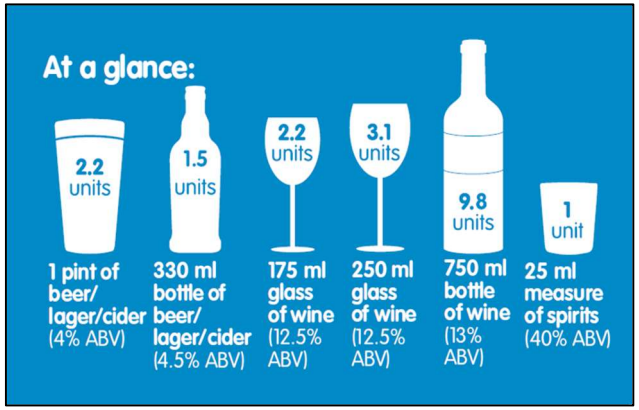
HEALTH BEHAVIOUR: Alcohol

Alcohol has a significant impact on health and wellbeing and is seen as a causal factor in more than 60 medical conditions. As discussed in this report, these include cardiovascular disease, liver disease and many of our most common causes of poor health and premature mortality.

Due to the complex health and social consequences associated with harmful and hazardous drinking, alcohol can lead to increased hospital admissions from mental / behavioural issues and physical injuries and illness and is often linked to crime and violence. Living with someone who misuses alcohol can also lead to negative impacts within the family - financial, emotional, breakdown in parenting or relationships. Among those aged 15-49 in England, it is the leading risk factor for ill-health, early mortality, and disability.

Tackling alcohol misuse and the inequalities that surround this issue should be a key priority. We need to challenge the key drivers of alcohol consumption which are: availability, affordability, accessibility.

This requires national action to tackle alcohol-related harms and recognise the impact that alcohol has on a range of health conditions. We continue to advocate for a public health licensing objective, and this remains of increasing priority due to recent changes to policies to allow the extension of alcohol sales within takeaways, for example. We also continue to support Minimum Unit Price (MUP). Research around MUP suggests that this has a positive effect on population levels of drinking and purchasing. However early research does not indicate this is effective for higher risk and dependent drinkers and potentially different approaches are needed to help this cohort of people. As well as supporting MUP we will continue to work with Balance North East for wider structural interventions, including influencing alcohol companies to change their branding, and explore ways to support an alcohol-free childhood through the licencing policy.



Chief Medical Officers' guideline for both men and women is that:

- You are safest not to drink regularly more than 14 units per week, to keep health risks from drinking alcohol to a low level.
- If you do drink as much as 14 units per week, it is best to spread this evenly over 3 days or more.
- The risk of developing a range of illnesses (including, for example, cancers of the mouth, throat and breast) increases with any amount you drink on a regular basis.
- If you wish to cut down the amount you're drinking, a good way to help achieve this is to have several drink-free days each week.

In Newcastle, the approach to early identification and brief intervention for drugs and alcohol includes training for universal services. This is especially important in tackling normalisation of alcohol consumption and recognising alcohol and drugs as a risk factor. Alcohol misuse can exacerbate heath, social and economic inequalities and locally we have over 4,100 people with an alcohol dependence which modelling would suggest impacts thousands of our residents who are family members of those affected.

Destigmatising inclusion and investing in recovery

Fenham Library Community Wellbeing Hub. The commissioned drug and alcohol recovery and family support services are co-located within the library. The services provide recovery-based support and a wellbeing programme with a range of sessions to those affected by drugs and alcohol as well as their family members. The library is a hub of activities with a range of external and internal partners operating from it, providing a place-based holistic offer. This allows for the community, people who use care and support, and their families to access support to improve their physical, social, and mental wellbeing. The co-location of services enables signposting and continuous communication between partners. The hub offers a range of activities looking to address recovery support, physical health, mental health and wellbeing and social isolation. The library is one of two drug and alcohol community hubs (Byker Sands Family Centre being the other in the East end) where drug and alcohol services are co-located with family support and Early Help.

The positive work between partners has been recognised recently with Dame Carol Black visiting. Dame Carol published an independent review of drug policy recently and is also the Chair of British Libraries and has been impressed with the use of this important community facility and the progress made here.

HEALTH BEHAVIOUR: Smoking

Smokefree Newcastle vision

To make smoking history

To see children born today grow up and live smoke free

To see no more than 5% of the city's adults smoke by 2030

In order to achieve our 5% vision, targeted action and efforts in communities with higher prevalence offers the biggest gains in reducing health and social inequalities

Smoking remains the greatest contributor to premature death and disease across Newcastle. It is estimated that up to half the difference in life expectancy between the most and least affluent groups is associated with smoking.

In 2017-19, there were around 1,096 deaths in Newcastle attributable to smoking which is significantly worse than the England average. This includes 87% of deaths from lung cancer; 73% of deaths from upper respiratory cancer and 86% of COPD diagnoses. All these conditions are associated with low quality of life as well as premature death and are strongly socially patterned towards those living in poverty.

The prevalence of smoking in Newcastle is similar to the England average at 13%, which is tremendous progress from 17.6% in 2017. However, data averages can mask significant inequalities across our local population with smoking prevalence and smoking-related mortality rates persistently highest in the least affluent areas of the city. More specifically, prevalence rates for particular groups are notably higher including:

Routine and manual occupations 21.6%

- associated with higher levels of workplace absence and lower household income

Mothers smoking at the time of delivering 11.7%

- associated with still birth, low birth weight and damage to baby's brain and lungs

People who live in social housing 30%

- reducing the quality of our homes and increasing inequalities experienced by children who live in social housing

Proudly working alongside our regional tobacco control programme, Fresh, the North East has seen the largest fall in smoking in England since Fresh began in 2005 from 29% to 15.3% of people smoking in 2019. Alongside regional action, Smoke Free Newcastle is a local partnership that works to reduce rates of smoking by preventing people starting and supporting smokers to quit. They also influence the control, use and sale of tobacco.

Targeted action:

Our stop smoking pilot for residents in social housing offers vapes (e-cigarettes) as part of "Swap to Stop" packs, with advice and support to quit smoking for good. Evidence shows that vapes are 95% less harmful to health than tobacco and have the potential to be more successful than traditional Nicotine Replacement Therapies (NRT) at helping smokers to quit. This can increase household income, reduce risk of acute or long-term illness and improve wellbeing, with lower levels of stress. Results of this pilot will inform future approaches to Newcastle's stop smoking support and creates opportunity to build on tobacco control with social housing providers.

Newcastle is committed to tobacco-related inequalities by:

- Commissioning Newcastle Stop Smoking Services.
- Working with the NHS to develop stop smoking programmes for pregnant women.
- Working with Fresh to influence policy and law on tobacco control

In Newcastle, in 2020/2021, 61% of those setting a quit date stopped smoking which is above the England average.

People have and can stop smoking

"Jean" first started the journey to quit smoking in December 2020 and had 4 attempts prior to quitting smoking altogether, whilst successfully coping with health problems and external stresses at the same time. The Newcastle Stop Smoking Service (SSS) Advisor provided lots of encouragement, praise and in-depth knowledge around nicotine products and how they interacted with other prescribed medication. Early in 2021 Jean had a setback due to alcohol dependence and requested help for this at the same time as starting the 12-week stop smoking programme. Doing both together was such an uphill struggle, but Jean did manage to quit smoking and stop using alcohol altogether.

In Dec 2021 Jean wanted to stop using a vape, having stayed off cigarettes. Whilst working hard to cut down, other anti-psychotic medication needed adjusting and this affected her progress. In July 2022 Jean tried to stop vaping, going 'cold turkey', but this approach proved unsuccessful. She then started a 12-week programme with the SSS using Nicotine Replacement Therapy (NRT) and successfully managed to stop the vaping too. In November 2022 Jean sent an update to the SSS: 'It's been a long time since I started my nicotine free road, but I thought you would like to know I have done it! I couldn't be happier, and I wanted to thank you again for your support."

HEALTH OUTCOME: Type II Diabetes

Type II diabetes (TIID) is a chronic condition whereby individuals experience insulin insensitivity or unresponsiveness, otherwise termed insulin resistance, as well as impaired secretion of insulin by the pancreas. The condition is characterized by chronic high blood sugar levels and high levels of circulating free fatty acids which over time can cause a range of harms throughout the body.

As such, TIID can significantly reduce quality of life and life expectancy, specifically being associated with common causes of premature death including heart disease and stroke, as well as chronic conditions as kidney disease, nerve damage and vision loss and blindness, and increases the risk of poor foot health (sores, slow healing, infections; poor oral health as well as mental health conditions from worry to more serious diagnoses like anxiety or depression.

TIID is often associated with the social and behavioural risk factors presented earlier in this report and is attributed to poor diets and inactivity often associated with poverty as well as generic risk factors associated with specific ethnicities. Crucially, TIID is treatable and with tailored, proportionate support can lead to remission of the condition. Key components of treatment support for those affected should educate and empower them and include:

- **Weight Loss: Start by setting a weight loss goal of 5% of your current bodyweight.**
- **Balanced Diet: Choose high fibre carbs, more fruit and veg, and unsweetened snacks and drinks, and cut down red/processed meats, salt, and alcohol intake.**
- **Moving More: Start with small bouts (5-10 minutes) of movement (walking, jogging, swimming, or cycling) until you can complete 30 minutes of physical activity, 5 days per week.**

From the Newcastle based GPs for 2019/20, there were 17,196 patients on practice disease registers diagnosed with diabetes. This represents 6.3% of those aged 17 years or older registered with a Newcastle GP. Local practice-level data shows that prevalence increases to around 3 in 10 patients in the 80 to 89 age range. Public Health England's Diabetes Tool estimates there are 2,154 of our residents with undiagnosed diabetes.

By 2030, it is estimated 20,292 will have diagnosed and undiagnosed diabetes in Newcastle, which is almost 8% of our population.

The scale of diabetes in the city poses a significant threat to the health and wellbeing of our population and is already generating huge health service pressure. A chronic condition that has physical and mental harms, TIID can reduce the quality of life of sufferers for decades, and can require wide-ranging treatment, care and support. The risk increases with age and is associated with being overweight or obese; people who are inactive or sedentary; as well as people with high blood pressure and those with a family history or specific ethnicities.

Our overall public health approach addressing the wider determinants of health, tackling poverty, improving nutrition, and promoting physically active lives is key to prevention as well as making sure our environment supports and empowers sufferers to manage their condition and reduce their risks.

Although Diabetes may be a worrying condition for sufferers, there is lots of treatment and support in our communities that is improving all the time. For anyone who might be worried about their weight and appetite over a period of time or their family risk, getting diagnosed can help you get the right treatment and will reduce your risk of complications.

Targeting Resources

For those who receive a diabetes diagnosis it can be a worrying time, and it is important that hose affected and needing secondary prevention feel a sense of control in their treatment and care. Whilst the likelihood of diabetes remission increases with weight loss, participants in traditional weight management programmes are typically female and this is recognised as a healthcare inequality in weight management provision.

To tackle this on behalf of Collaborative Newcastle, our local public health team have played a key role in securing funding to commission and design a local model for implementation and evaluation of a year-long pilot programme. The programme will involve a structured and evidence based TIID reversal pathway across Newcastle using a group cohort approach. The programme is based on the ground-breaking DiRECT study and other research at Newcastle University which has shown that this approach could help people lose weight, improve their diabetes control, reduce diabetes-related medication and even achieve remission.

People aged 18-65 diagnosed with Type 2 diabetes in the last six years are invited to discuss with their GP whether the programme is right for them to get a GP referral into the free service, provided by Momenta Newcastle. A range of group in-person and online options are available with sessions taking place in community venues close to home.

This involves a new programme of specially formulated low-calorie shakes, soups, bars and small vegetable meals, for three months, followed by support to eat more healthily and get more active over the long-term. For specified patients with Type 2 diabetes, with the aim of supporting them to achieve significant weight loss, improve their quality of life, and, for as many people as possible, put TIID into remission. The weight loss maintenance phase of the intervention includes community-based sustainable support via existing infrastructure across the city, to encourage long-term behaviour change and maintenance of weight loss and remission.

This project adopts a systems-wide approach and is currently being delivered in collaboration with Momenta Newcastle, primary care, secondary care, and public health. As well as helping individuals lead happier and healthier lives, enhanced action on obesity and diabetes is also expected to save the NHS money and free up colleague time. Diabetes is estimated to cost the NHS £10 billion a year, and almost one in twenty prescriptions written by GPs is for diabetes treatment. Newcastle University and public health are working together to evaluate this 2-year pilot.

HEALTH OUTCOME: Depression

There has been a year-on-year increase in the prevalence of depression from 5.8% (2013) to 10.1% (2021).

While depression presents in a range of ways and varies greatly in severity, it is important to remember that **most people do recover.** Making sure that people have access to the right support, free from stigma, significantly improves outcomes. Current waiting times for specialist support is creating acute pressures for people in crisis and more serious presentations are associated with intentional self-harm and suicide. In 2021, hospital admissions related to depression were 10.9 per 100,000, which is a significant increase since 2020 (6.9 per 100,000). Overall, mental health hospital admissions were 17.5 per 100,000 in 2021 which also increased from 15.5 in 2020. In the community, Newcastle has one of the ten highest rates of antidepressant prescribing in the country as of January 2020.

Public mental health approaches promote mental wellbeing, prevention and supporting people to recover. Taking a life course approach, we have a three-tiered approach:

- Population approach to public mental health across the life course to build resilience and promote wellbeing;
- Life course approach from early years, students, employment;
- Targeted prevention approach (populations most at risk)

Key features of a public health approach to treatment can promote physical wellbeing, and support individuals with coping mechanisms within their control to complement and enhance clinical interventions. Our Mental Health and Wellbeing Partnership is a multi-agency stakeholder group overseeing delivery around increasing population wellbeing and reducing mental ill-health. The group has recently received an update about key performance and intelligence to help inform delivery planning going forward, including

Depression causes a prolonged feeling of sadness and disinterest in most things. It can cause a person to be irritable or anxious. There can be physical symptoms too, such as feeling constantly tired and various aches and pains. This affects the way you feel, act, or behave. It can lead to issues that can affect a person mentally, physically and socially. Depression can also cause a person to neglect their physical wellbeing, leading to other comorbidities such as obesity and employment barriers. In some serious cases depression can lead to suicide.

Everyone is at risk although it mostly occurs in adulthood and risks can change over time, for example specific events can increase risk (such as unemployment, seasonal changes or bereavement) and more women are affected than men.

Depression can be treated with a range of coping strategies to promote protective factors. Treatment for depression usually involves a combination of lifestyle changes, talking therapies such as counselling or cognitive behavioural therapy (CBT) and medication. Making sure people can recover in a positive environment with strong social support gives people impacted the best chance of a sustainable recovery.

targeting activity and recognising the issues with the cost-of-living crisis. The partnership includes representation from across the life-course to ensure preventative is embedded into planning, delivery, training and workforce development, including the Suicide Prevention action plan. There is strong cross-sectoral commitment to the group and revising the delivery plan for 2023/24; embedding prevention into the Integrated Care System (ICS) mental health transformation plan will improve patients' outcomes with joined up services across the system

Be A Game Changer is Newcastle United Foundation's mental health awareness campaign, encouraging everyone to talk openly about mental health**,** and **in 2022**, **won the Community Sport and Recreation Awards – Mental Health and Wellbeing Awards.** Funding for the programme has been extended for 2023. The programme, initially set up to target men's mental health, has now increased to target population mental health and specifically focus on underrepresented groups. The programme involves a range of mental, physical and social interventions to support and improve the health and wellbeing of individuals.

Covering September 2021 - August 2022, this delivered:

- 48 wellbeing workshops covering topics such as Mental Wellbeing, Sleep and Stress, Men's Health, engaging with 2,782 participants
- 6 walking football sessions with 95 participants since March 22
- Over 10,000 support cards were distributed at St James' Park
- 4 match day awareness campaigns helped raise awareness of BAGC and mental wellbeing with over 50,000 fans attending each event
- 57 BAGC media appearances for the campaign including TV, newspaper, websites, podcasts, radio, magazines and there are over 3,500 BAGC Facebook group participants

"….I honestly don't think I'd be as physically or mentally strong if I hadn't found the BAGC community"

"…with support from the charity's Health and Wellbeing team, I've been able to share my story to help others through the campaign that truly saved me"

Mental Health Concordat

The Mental Health Concordat is a prevention focused approach to improving population mental health. The concordat has a focus on cross-sector action to deliver a tangible increase in the adoption of public mental health approaches. Using population mental health intelligence helps us inform and update this giving a rounded perspective on how features of life in Newcastle contribute to positive mental health, as well as risk factors. The Concordat looks at the wider determinants of health across the city such as housing and the environment to direct actions for specific partners and articulate their contribution to positive health outcomes. The Prevention Concordat for Better Mental Health is underpinned by evidence of how a public health approach can make a valuable contribution to achieving a fairer and more equitable society.

Physical activity – prevention and treatment for our residents and our environment

Central to addressing health, social and healthcare inequalities is our local environment and how we move through the neighbourhoods in which we live. More specifically, what support and services are nearby and what people have sight of or can access is critical to having positive exposures, opportunities, and aspirations. Physically, this encompasses our transport infrastructure from safe walking routes to schools or connectivity to employment, and links to community assets like our libraries and parks and can support our Net Zero targets.

Physical activity uniquely offers both short- and long-term physical and mental health benefits, improves social connectedness and is a highly effective treatment for many common conditions such as obesity, depression, and diabetes. While people may have negative associations with exercise, our vision of a physically active Newcastle is that our residents are supported in their daily routines to move more and sit less, however they may be able. Key to this is making being active in everyday life easy. It shouldn't be competing with other things on your long to-do list but can be built into your routine as part of your commute, catching up with friends in nature or playing with your kids. Key areas for developing a more active city using a public health approach in 2023 include:

- Working with cycling providers to encourage active travel instead of car journeys, including free or low-cost bikes, embedding behaviour change action into our cycling infrastructure and adult cycle training
- Promoting School Streets and Low Traffic Neighbourhoods
- Getting children excited about activity through our Healthy Schools and HAF
- Developing parks and open spaces so that residents can be active or socialise, and use as part of a route that people pass through to reach another destination
- An inclusive walking programme citywide, expanding our walk leader training with businesses, GP Surgeries and community organisations
- Whole-system approaches to promote secondary prevention and treatment pathways for residents with treatment and care packages
- Increasing physical activity in older adults with any abilities, supporting the expansion of programmes like How Fit to benefit more of our residents prior to any risk of falls or frailty, or to rebuild confidence

Newcastle's 2022 Recovery Walk

Recommendations

1. **Develop joint planning and evaluation opportunities with leaders and experts who influence the wider determinants of health to measure health outcomes impacted by decisions and prevent or mitigate inequalities through practice and policy.**

2. **Integrate data across local systems using public health analysis and community engagement to understand variation between our residents' outcomes, shape interventions and identify unmet need.**

3. **Prioritise and resource preventative action in our local food system and physical activity opportunities across the whole system.**

4. **Support the expansion of health improvement and secondary prevention in healthcare settings through universal and targeted provision, using our knowledge of how inequalities constrain people's choices and behaviours.**

To augment public health practice across the city, the local authority public health department was restructured in 2022 to reflect our communities, and the complexity of public health priorities and interventions, as set out in this report. This new structure offers enhanced opportunities to address inequalities, coproduce health with our residents and provide specialist public health input to integrated whole-system approaches and will help maximise the opportunities offered through our NIHR Health Determinants Research Collaborative.

The new department is structured to include six key portfolios:

- Epidemiology and Intelligence
- Harm Reduction and Social Inclusion
- Wider Determinants and Wellbeing
- Fair and Healthy Childhood
- Quality Healthcare and Health Protection
- Public Health Literacy

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