Nottingham and Nottinghamshire ICS

Gastroenterology

Clinical and Community Services Strategy

January 2021

This information has been placed in the public domain in order to benefit patients across the country as we believe the experience and approach may be useful for others, however we request that acknowledgement to the work in Nottinghamshire is made and referenced in all materials. This helps us to understand the wider impact benefits of our programme. Please cite 'this work has been informed by the Nottingham and Nottinghamshire ICS' when referencing.

Contents

1. Executive Summary

The Integrated Care System (ICS) ambition across Nottinghamshire is to both increase the duration of people's lives and to improve the quality of those additional years, allowing people to live longer, happier, healthier and more independently into their old age. The aim of the Clinical and Community Services Strategy (CCSS) is to support the system to achieve this by shifting the focus of our health and care delivery from reactive, hospital based treatment models to a pro-active approach of prevention and early intervention, delivered in people's homes or in community locations where this is appropriate with a long term view of beyond 5 years.

Gastrointestinal symptoms account for 10% of GP consultations, with demand for elective gastroenterology appointments doubling since 2005/6 with 118.6million appointments in 2017 and a 20% increase in people waiting longer than the 18 week standard. In 2018/19, CCG inpatient tariff spend on diseases of the digestive system was £2.36 billion. Functional disorders, such as Irritable Bowel Syndrome, are commonly the cause. Liver disease is the only major cause of death that is increasing year on year in the UK, with greater than 90% preventable by reducing risk in the population and improving detection and management of patients at risk due to alcohol misuse, obesity and Hepatitis C.

The NHS Long Term Plan (LTP) makes strong reference to alcohol and obesity as important prevention opportunities. Global Burden of Disease (GBD) studies ranks alcohol and drug use and obesity in the top 5 risk factors that cause premature death in England. Alcohol is a significant risk factor for the development of liver disease, as well as Cardiovascular Disease (CVD), cancer, harm from accidents as well as violence and self-harm. Obesity is also linked to liver disease, with two thirds of people in England overweight or obese. The burden of obesity and alcohol and drug use is not experienced equally across society and targeted approaches are highlighted to address the falling life expectancy for the most deprived 10% of society. The NHS LTP makes a commitment to establish Alcohol Care Teams (ACT) over the next 5 years for those with the highest rates of alcohol-related admissions, with benefits evidenced from early adoption sites, including Nottingham. People dependent on alcohol are more likely to have mental health problems, with people with severe mental illness (SMI) likely to die 15 to 20 years earlier than those without. People with SMI are at higher risk of physical health problems. The NHS LTP makes a commitment for people with SMI to have their physical health needs met, with an ambition for an additional 110,000 people per year to have an SMI check by 2023/4. People affected by homelessness die an average 30 years earlier than the general population, with 31% having complex needs which makes engagement with mainstream services difficult. Commitment to support better access to specialist homelessness NHS mental health support is made in the NHS LTP to address the 50% prevalence of mental health needs in people affected by homelessness.

This gastroenterology service review has been undertaken as part of the ICS CCSS work stream. It has been supported by clinical experts and stakeholders in the development of place based service models for the future, to support the long term needs of our existing citizens. The review also focuses on embedding prevention in our population over the next 5-10 years, by shifting our culture from one of illness to one of healthier lifestyles and self-care.

The strategy identifies major stages in the journey for people with gastroenterology conditions and stresses a need to reorganise the way in which these services are delivered, from prevention to longer term management. A whole pathway approach in the provision of gastroenterology services is crucial in order to maximise the clinical outcome for patients, their quality of life and experience of gastroenterology services.

Key themes have been identified along with key transformational opportunities and potential impacts have been developed which include: prevention and education strategies to reduce risk; early detection and diagnosis through a targeted approach to seek and case manage high risk groups and access to diagnostic testing in a range of settings to capture vulnerable groups; consistent and equitable access to lifestyle interventions to reduce risk; access to specialist advice and care with enhanced community provision; a Network MDT to coordinate care; agreed and consistent pathways and MDT for IBS and appropriate and timely mental health support for people with long term conditions or co-existing mental health and substance misuse issues.

A transformational 'Bridge to the Future' highlights current service offers across the ICS and identifies some potential long term next steps that can be taken to achieve the identified opportunities with proposed timelines and the expected outcome for our citizens of Nottinghamshire.

The recommended next steps are vital in keeping the momentum of change in the future offer of improved prevention and better health for our citizens; providing the right tools for our population to support their wellbeing; providing strong communication links for our staff is vital to enable them to provide the best care for our citizens; the most appropriate models of care in acute settings, neighbourhood and home need to be provided equitably across the ICS and be provided using best evidence, flexibly and in a patient centred way for them to fulfil their maximum potential throughout their lifetime.

2. Introduction

Background and Purpose	In Nottinghamshire we have made great progress in improving people's health and wellbeing. Today, we can treat diseases and conditions we once thought untreatable. However, our health and care system faces change and this will impact on our services, for example, the growing prevalence of long-term health conditions places new strains on our system. There is inequality evident in both the location of challenges and in access to services. In some areas, it is easier to access a GP than in others, or to find things to do to enable citizens to stay active and fit. The ICS ambition across Nottinghamshire is to both increase the duration of people's lives and to improve those additional years, allowing people to live longer, happier, healthier and more independently into their old age. The requirement for a CCSS came from the recognition that to achieve this ambition the system has to change as a whole, rather than just in its individual acute, primary care, community and social care elements. It is recognised that only by working together to describe changes in how care is provided across the system, rather than through individual organisations, will we deliver the scale of change required.
The ICS Clinical and Community Services Strategy	The aim of the CCSS is to support the system to achieve this by shifting the focus of our health and care delivery from reactive, hospital based treatment models to a pro-active approach of prevention and early intervention. This should be delivered closer to people's homes or in community locations where this enables better prevention, more supported self-care and earlier intervention to support citizens. The Strategy recognises that achieving this change is a long term programme that will be delivered over the next 5 years and beyond. This is also to enable a necessary long term investment in the health and care buildings and infrastructure in the system. An overall CCSS whole life model framework has been developed to focus on the need to support people through their lives from living healthy, supporting people with illness and urgent and emergency care through to end of life care. Citizens can experience different parts of the system at different stages in their lives. With the development of the overall Strategy framework the next phase of work is to review the 20 areas of service across the ICS that collectively form approximately 80% of the volume of clinical work in the ICS. This will ensure that overall the Strategy is described as a coherent whole and generates a programme of change for the whole ICS. This review of gastroenterology is one such review and is part of the third phase of work.
NHS Long Term Plan	The NHS LTP is clear that to meet the challenges that face the NHS it will increasingly need to be more joined up and coordinated in its care; More proactive in the services it provides; More differentiated in its support offer to its individuals. The ICS has focused on describing 5 areas of focus for the delivery of the NHS LTP. These requirements are reflected in each of the service reviews that collectively will describe the CCSS **1. Prevention and the wider determinants of health -** More action on and improvements in the upstream prevention of avoidable illness and its exacerbations **2. Proactive care, self management and personalisation -** Improve support to people at risk of and living with single and multiple long term conditions and disabilities through greater proactive care, self-management and personalisation **3. Urgent and emergency care -** Redesign the urgent and emergency care system, including integrated primary care models, to ensure timely care in the most appropriate setting **4. Mental health** - Re-shape and transform services and other interventions so they better respond to the mental health and care needs of our population **5. Value, resilience and sustainability -** Deliver increased value, resilience and sustainability across the system (including estates)

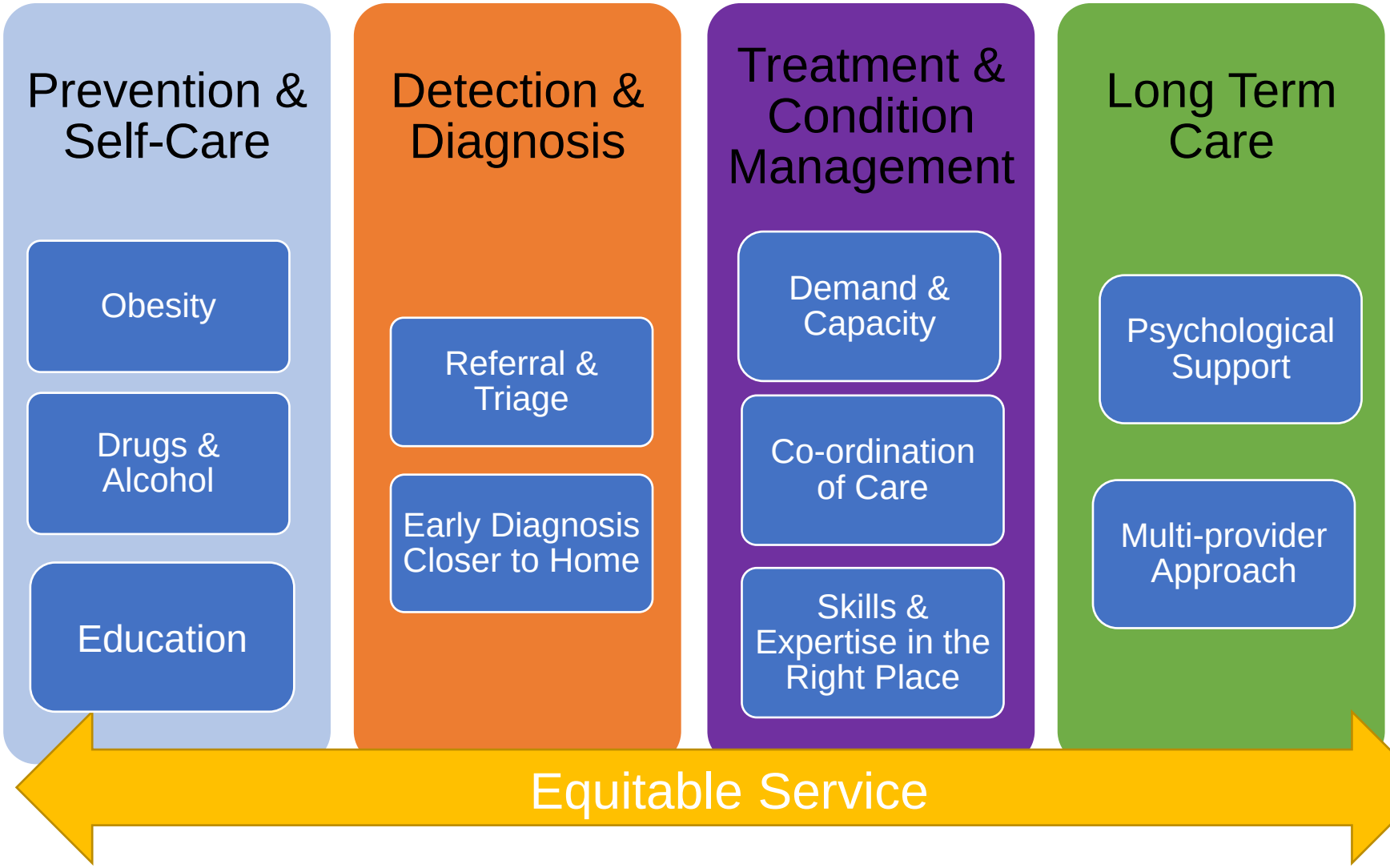
3. Approach and Scope

Approach	This strategy has been developed through an open and inclusive process which weaves together the expertise of clinicians and care experts with commissioners and citizens in determining the future shape of services across the system. There have been a variety of stakeholder and service user events to develop a clinical and community services model. An extensive system wide piece of work is taking place across a minimum of 20 services. The CCSS Programme Board have reviewed these services against a range of quantitative and qualitative criteria and agreed the third phase of seven service reviews. These include Gastroenterology; Heart Health; Colorectal; Urological Health; Oncology; Depression and Anxiety and End of Life Care. This document discusses the approach, scope, the key issues and potential transformational opportunities within gastroenterology services across the ICS. Health, social care, public health and the voluntary sectors have all been considered through reviewing the current service offer across the ICS. The service review was undertaken over approximately 24 weeks with representation from stakeholders across the ICS. An evidence review pack was developed which considered national and local best practice to inform the development of potential themes and new models of care where transformational change may take place across the ICS in the future.
Scope	For the purpose of the review the following focus was agreed: **In scope:** • Users of Adult Services • Alcohol related liver disease • Non-alcoholic Fatty Liver Disease • Irritable Bowel Syndrome • Hepatitis B and C • Drug and alcohol dependency **Out of Scope:** • Specialised commissioned services • Paediatrics • Endoscopy
Engagement	The Gastroenterology service review has been supported by a tailored Gastroenterology Steering Group involving stakeholders and clinical experts from across the ICS. They have provided expert advice, guidance, confirmed and challenged assumptions throughout the period of review and connected to other workstreams. This group has formed part of the governance process along with the CCSS Programme Board. Stakeholders involved in the Gastroenterology service review included Patients, Clinicians, Allied Health Professionals (AHPs), Nurses, Heads of Service, Social Care, Public Health, Commissioners and others to be proactively involved in re-evaluating current service offers across the ICS, in developing potential themes and agreeing transformational change for the future Clinical and Community Services Strategy. Patient engagement has enabled confirm and challenge of assumptions and play an active part in the co-design of any future service changes across the ICS.

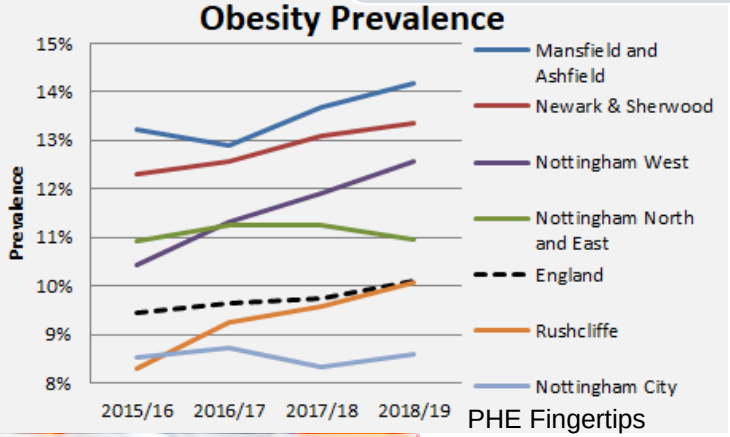
4. Contents

Strategy Development	This Strategy Document consists of five key elements. These have been developed through a process of design and iteration with the steering group, which includes key stakeholders across the system. The strategy has been developed with reference to the Evidence Review document and patient feedback.
Priorities for Change	The work of the Steering Group identified four key areas of focus that need to change in the ICS for gastroenterology care. These were based on a review of the current issues facing the ICS and the views of the Steering Group.
Proposed Future Care System	Following the evidence review at subsequent steering group meetings, attendees started to develop the future care system for Gastroenterology to address the Priorities for Change. The future care system is described against two dimensions • **Location** split between - Home (usual place of residence) – Acute Hospital with 24/7 medical presence – Neighbourhood representing all community/primary care and ambulatory care settings • **Urgency** split between - **Emergency/Crisis** requiring a service provided 24/7 to avoid crisis or risk to life – **Urgent** requiring a service 7/7 but not 24/7 to meet urgent care needs – **Scheduled** reflecting any arrangement where an appointment is agreed between a professional and a citizen The intention of the system model is to focus future care delivery closer to home and also with greater levels of scheduled care to best use the available resources and reduce demand on urgent and emergency care services. The new system to address the Priorities for Change is presented for each location and then summarised overall for the ICS.
Transformation Proposal	The Transformation proposal described the key initiatives or programmes that are required to deliver this new model. Namely, • **Priority** – What is the priority of the initiative in the view of the steering group and workshop attendees? • **Alignment** – At what level of the system should we aim to deliver each initiative? In most instances this is ICS level but there are some instances where the recommendation is for delivery to be at Integrated Care Provider (ICP) level where the greater value is perceived to be in an overall consistent approach. Alternatively, it is at Primary Care Network (PCN) level where differential delivery would benefit the needs of very local populations • **Enabling Requirements** – What is required to enable each Programme to deliver? This includes workforce, technology, estate or service configuration. There are also requirements of culture or finance and commissioning to allow the system to work together differently • **Benefits and Costs** – Where available, the key benefits of the initiative at system level are summarised
Bridge to the Future	The 'Bridge to the Future' was generated at a further virtual steering group meeting. It summarises the current challenges for the gastroenterology system in the ICS now (Priorities for Change), where we would like to be and how we plan to get there. Progress with the 'Bridge to the Future' and the partnering vision can be returned to with stakeholders as the work develops to ensure the work remains on track.

Gastroenterology Key Themes



Prevention & Self-Care



PHE Fingertips

2.2% of citizens in Nottingham City are alcohol dependent. Only 0.2% of Nottingham City residents are recorded as hazardous drinkers.
2014/15 PHE Local Alcohol Profile HealthScope

1 in 10 people who drink harmful amounts will develop cirrhosis.
(British Liver Trust)

Persons in drug misuse treatment who inject drugs - % of eligible patents that have received a Hep C test is significantly lower than the England average
(Fingertips)

Obese people are 21 times more likely to have liver disease
(Scared Liver Project)

1 in 3 people in the UK have early stages of non-alcoholic fatty liver disease NHS

NUH inpatients: 8.6% are increased risk, 3.8% high risk and 2.1% are alcohol dependant.
(NUH)

Opioid-induced bowel dysfunction is the most common side effect of opioids.
Opioid Induced Bowel Dysfunction paper

1 in 6 LGBTQ people say they have drunk alcohol almost every day for the past year
(Stonewall)

70% of people with alcohol-related liver disease are alcohol dependent
(British Liver Trust)

Detection & Diagnosis

3 fold increase in cirrhosis detection via fibroscan

Scarred Liver Project

73% of patients with proven cirrhosis had normal liver function enzymes

Scarred **Liver Project**

Faecal calprotectin pathway:

21-50% reduction in colonoscopies

40-70% reduction in New OPA

Gastroenterology Elective Care Handbook

50% of new diagnoses of liver cirrhosis occur only after emergency admission to hospital

NHS Innovation Accelerator

Early detection of **NAFLD £2,138** per extra quality adjusted life year (QALY)

Early detection of **Alcoholic Liver Disease - £6,537** per extra QALY

NHS Innovation Accelerator

The Scarred Liver Project: Targeting risk factors.

Need to be able to identify those at high risk…

2.2% of citizens in Nottingham City are alcohol dependant. Only 0.2% of Nottingham City residents are recorded as hazardous drinkers.

2014/15 PHE Local Alcohol Profile & eHealthScope

GASTROENTEROLOGY OUTPATIENT ACTIVITY:

	FA		FUP	
Year	Activity	Cost	Activity	Cost
2016/2017	15,556	£2,598,159	18,572	£1,819,655
2017/2018	13,742	£2,236,941	21,928	£1,331,422
2018/2019	12,291	£2,014,978	22,210	£1,337,136
2019/2020	12,820	£2,021,280	21,825	£1,238,160

CCG

GASTROENTEROLOGY INPATIENT ACTIVITY:

	Daycase		Elective			Emergency		
Year	Activity	Cost	Activity	Cost	Bed Days	Activity	Cost	Bed days
2016/2017	24,316	£10,002,371	450	£740,014	1268	604	£1,598,975	4781
2017/2018	26,100	£10,480,240	610	£938,488	1753	488	£1,427,286	3480
2018/2019	27,290	£11,066,469	681	£867,028	1535	288	£956,681	2511
2019/2020	32,968	£14,072,087	647	£1,147,068	2049	280	£1,054,150	2347

CCG

1 in 8 higher or increasing risk drinkers receiving the IBA will reduce their alcohol consumption to lower risk levels, reducing the potential for alcohol-related harm

NICE

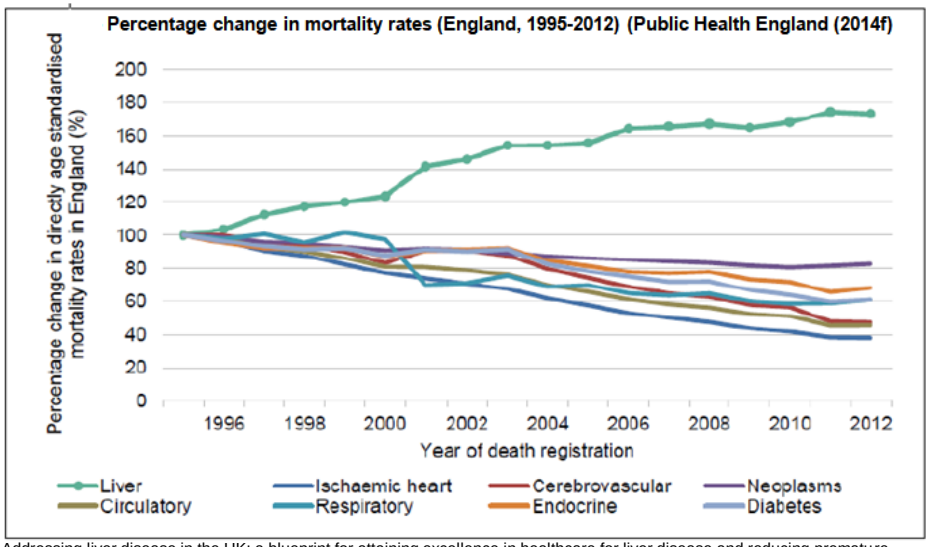
Integrated Care System
Nottingham & Nottinghamshire

Treatment & Condition Management

www.healthandcarenotts.co.uk @NHSNottingham

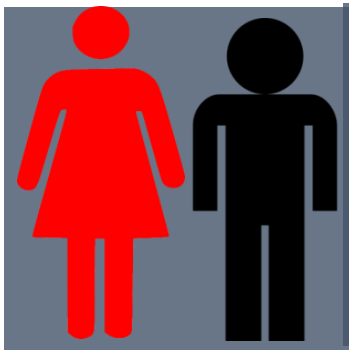
Mortality rates for liver conditions are increasing in the UK, contrary to other conditions. Mortality rates are improving in most EU countries.

Nottingham has statistically higher under 75 liver mortality rate the England average. PHE 2018/19



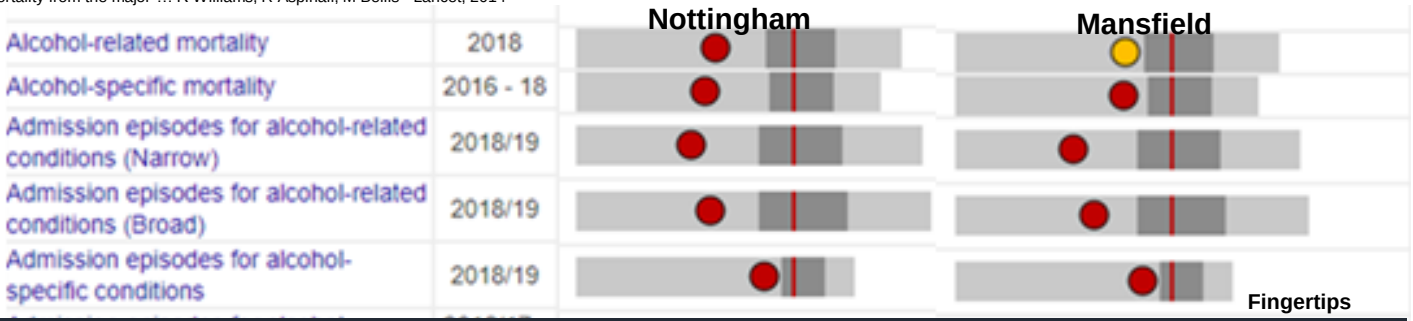
Addressing liver disease in the UK: a blueprint for attaining excellence in healthcare for liver disease and reducing premature mortality from the major … R Williams, R Aspinall, M Bellis - Lancet, 2014

Mortality rates have increased **400%** since 1970 (**500%** in people under 65 years old) Lancet



Care of patients acutely sick with liver disease dying in hospital was judged to be good in less than half of patients

2013 National Confidential Enquiry into Patient Outcome and Death

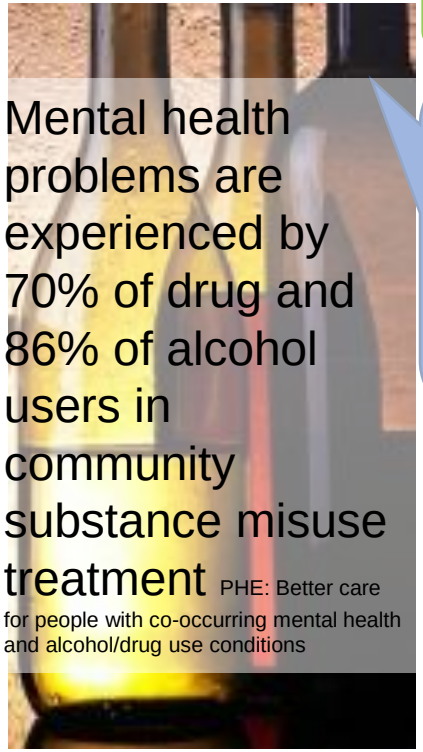


There are more admissions for alcohol related conditions in Nottingham City and Mansfield, with alcohol related mortality high in Nottingham City

FODMAP dietetic approach to IBS

67% reported satisfactory relief of their gut symptoms Saving **£50,718-£139,986**pa by reducing GP visits, referrals and medication, **NUH**

Long Term Care



Mental health problems are experienced by 70% of drug and 86% of alcohol users in community substance misuse treatment PHE: Better care for people with co-occurring mental health and alcohol/drug use conditions

CATCH 22

Vast majority of clinical responses require an individual to address their substance misuse, before mental health treatment can be provided or even a needs assessment carried out. Fulfilling Lives Partnerships

Only 0.2% of Nottingham City residents are recorded as hazardous drinkers. (2.2% alcohol dependence)

2014/15 PHE Local Alcohol Profile HealthScope

Suicides among people with a history of alcohol or drug use (or both) accounted for 54% of suicides sampled.

The National Confidential Inquiry into Suicide and Homicide by People with Mental Illness

99% of NUH Inpatients with increased alcohol intake receive brief advice

NUH IP CQIN

Only 11% of people that committed suicide with a history of alcohol or drug use (or both) were in touch with alcohol or drug services at the time of their death.

The National Confidential Inquiry into Suicide and Homicide by People with Mental Illness

Of 50% of people with IBS who seek treatment, 90% have psychological disorders

PHE: Better care for people with co-occurring mental health and alcohol/drug use conditions

5. Priorities for Change

The review identified 4 key areas of focus highlighting potential areas of change which include:

- Prevention and Self-Care (with emphasis on population awareness of risk and harm linked to the key risk factors of alcohol and drug use and obesity, education to support citizens in making lifestyle change and support self-management, education of health care professionals to support prevention, detection and self-care);
- Detection and Diagnosis (standardised referral criteria and advice and guidance to support timely and appropriate referral, systematic and widespread adoption of IBA and a targeted approach using PHM principles to seek and case manage high risk groups, early and accurate diagnosis of gastroenterology conditions);
- Treatment and Condition Management (consistent and equitable access to hepatology oversight and access to specialist skills across settings to address capacity and demand, opportunities to develop pathways and access to MDT to coordinate care for liver disease and IBS, access to expertise in the right place at the right time);
- Long Term Care (access to timely psychological support for long term conditions and people with co-existing mental health and substance misuse issues, coordination of care through a multi-agency approach)

Prevention and Self-Care	Liver disease constitutes the third commonest cause of premature death in the UK. More than 1 million admissions to hospital per year are the result of alcohol-related disorders, and both the number of admissions and the increase in mortality closely parallel the rise in alcohol consumption in the UK, at a cost of £3.5 billion per year to the NHS and £21 billion to society. Alcohol harm represents a significant public health burden in Nottingham and Nottinghamshire, with 1,000 per 100,000 rates of admission compared to the England average of 647 per 100,000 and alcohol related mortality 19.2 per 100,000 compared to 10.4 per 100,000 for England. Conservative costs of alcohol-related hospital admissions for Nottingham and Nottinghamshire have been estimated at £17.92 million per year. Costs to the wider health and social care system and to the Nottinghamshire economy will be considerably higher. Approximately 2.7 million adults in the UK take illicit drugs per year at a cost of £10.7billion. Drug use results in 90% of Hepatitis C infection which can lead to liver damage, with 215,000 people in the UK having Hepatitis C. Obesity is an epidemic affecting two-thirds of the UK population, at a cost of £5.5 billion per year due to the consequences of obesity and its link to many metabolic disorders, such as diabetes, hypertension and cardiovascular disease. This is likely an underestimate as obesity is also linked to several common cancers, such as breast and colon cancer. Of the people with obesity in the UK , 1 in 20 have liver disease, with most having non-alcoholic fatty liver disease (NAFLD). Many will have ongoing inflammation and scarring that finally leads to cirrhosis. Locally, 48,990 citizens have a BMI over 35kg/m^2, 29,670 a BMI over 40kg/m^2, and 4,725 citizens have a BMI over 50kg/m^2. Local systems are recommended to deliver a coherent, community-wide and multi-agency approach to obesity prevention and management. Service tiers, 1=universal services, 2=lifestyle interventions, 3=specialist weight management services, 4=bariatric surgery, describe services that should be available to allow people to be referred and receive support and which addresses the wider determinants of health. Currently in the ICS there are different tier 2 models across Local Authorities (LA). A limited tier 3 (only available for consideration of surgery) and a tier 4 service delivered in Derby and Burton NHS Trust. At present there is no local access for specialist weight management or bariatric surgery, with the ICS having some of the lowest prescriptions for dietary treatment and bariatric surgery in England. In addressing prevention opportunities it is important to consider that the poorest and most susceptible in society have the highest incidence of liver disorders, making liver disease a major issue for health inequalities. Trusted and approved resources should be available to support prevention and self-care which span across many media links, complemented by a wide range of written resources to support increased awareness and signposting. This can also support self-care , for example for people with Irritable Bowel Syndrome (IBS) where 75% rely on self-care. Education of healthcare professionals (HCP) to deliver consistent and evidence based practice (EBP) will support successful outcomes through greater knowledge and skill in supporting people in addressing risk factors, including the widespread adoption of Identification and Brief Advice (IBA). Education of healthcare professionals should also include the side effects of opioids for benign pain as a significant cause of bowel dysfunction.

Detection and Diagnosis	Standardised gastroenterology referral criteria and guidance supports the prevention of unnecessary appointments which can contribute to increased demand for services and long waiting times. They prompt appropriate onward referral and ensure that referrers understand where to direct patients and what information should accompany them. Advice and guidance (A&G) provides further opportunities to enhance shared learning and signposting referrals to the right person, in the right place first time. Nottingham Digestive Diseases Interface (NDDI) has supported this with a 22% reduction in patients moving to secondary care with advice only following a secondary care diagnostic. A model of A&G also exists in Mid Notts. Opportunities exist to support enhanced access to extended scope practitioners and to support the ambition to ensure simple IBS is managed in primary care. Detection by screening of alcohol use and giving brief advice are effective at reducing ill-health and thereby reducing the burden on health services, when delivered at scale. Locally, 2.2% of citizens in Nottingham City are alcohol dependent, but only 0.2% are recorded as hazardous drinkers. IBA aims to identify and influence citizens drinking when above recommended guidance and is evidenced to reduce weekly drinking by 12% on average. 1 in 8 higher or increasing risk drinkers receiving the intervention will reduce their alcohol consumption to lower risk levels. It has the most impact when alcohol intake is increasing risk of a wide range of health problems and dependent drinkers who may need specialist support, thereby reducing the risk of alcohol-related harm. In its simplest form IBA includes completion of Audit C, communication of risk and providing information or signposting for specialist advice. ICS wide adoption of IBA has been recommended to reduce the burden of alcohol harm, with access across settings including primary care and ED. IBA in ED has gained momentum but would be augmented by case management, particularly for high volume service users (HVSU). Levers, including the alcohol inpatient CQUIN, has supported this momentum. Health inequalities can be addressed by a targeted approach using Population Health Management (PHM) principles to target high risk groups. These principles can also be utilised to identify high risk factors for Hep B and C infection and signpost to established screening programmes, supporting the ambition to eradicate Hepatitis C infection by 2030. Identification of harmful dinking supports signposting to early diagnostics. Previous diagnostics relied on Liver Function Tests (LFTs), with 50% of liver cirrhosis diagnosed after first emergency presentation and only 13% seen in liver clinic more than 1 year before diagnosis. Targeting risk factors (alcohol, diabetes and obesity) and offering Fibroscan has increased detection of significant liver disease (20% of those having a community scan) with a 95% attendance through delivery in a range of community settings. Fibroscan has been evidenced as cost-effective. Once diagnosed, caring for a patient with non-alcoholic fatty liver disease (NAFLD) costs £2,138 per quality adjusted life year (QALY) gained and for alcohol-related liver disease (ARLD) it costs £6,537 per QALY gained. Access to Fibroscan is not equitable across the ICS, with opportunities to extend the offer to a range of settings, targeted to high risk groups and to achieve equitable access to Mid Notts. Diagnostic uncertainty also exists for people with IBS, often resulting in unnecessary referrals for invasive and unpleasant diagnostic treatment. Faecal calprotectin as a simple diagnostic to distinguish between IBS and Inflammatory Bowel Disease (IBD), can be used as a decision diagnostic to ensure signposting of referrals to appropriate intervention in the right setting; IBS representing 28% of secondary care gastroenterology referrals. Use of faecal calprotectin has been evidenced to reduce new hospital outpatient appointments by between 40 to 57% and colonoscopies by 21 to 50%.
Treatment and Condition Management	Mortality rates for liver disease have increase 400% since 1970, and almost 500% for those under 65 years of age. It constitutes the third commonest cause of premature death in the UK and represents more than 1 million admissions to hospital per year. In the ICS, Nottingham has statistically higher under 75 mortality rate than the England average, with more admissions for alcohol related conditions in Nottingham City and Mansfield. The National Confidential Enquiry into Patient Outcome and Death (NCEPOD) showed that the care of patients acutely sick with liver disease dying in hospital was judged to be good in less than half of patients; other unacceptable findings were the inadequate expertise of those caring for patients. Locally, patients with alcohol related liver disease (ARLD) are in contact with secondary care on a regular basis in the years leading to death. In total 93% had contact with all acute settings (inpatients, outpatients and ED), with an average of 9 visits per patient who was admitted and an average 3 visits per patient who attended ED but was not admitted. Nationally, attendances by frequent attenders, defined as ED attendances more than 5 times per year, increased to 4.12% of total ED attendances in 2010 (previously 2.59% in 2003). Access to hepatology services is concentrated in specialist centres, with 73% of district general hospitals having no dedicated hepatology services. The NHS LTP makes a commitment to reduce readmissions , ED attendances and ambulance call outs by establishing Alcohol Care Teams (ACT). ACTs delivered in every non-specialist acute hospital could save 254,000 bed days and 78,000 admissions per year by year three. Nottingham is one

Treatment and Condition Management	of 6 early adoption sites, with benefits evidenced in reducing readmissions and ED attendances. Access to the Alcohol Long Term Condition (LTC) Service in the community supports ongoing care needs following discharge. HVSU posts support intensive case management; a pilot at NUH resulted in a 28% reduction in attendances and admissions, with cost savings identified as £80,000 per annum. Across the ICS, access to ACT, Alcohol LTC Team, HVSU posts and hepatology oversight is not equitable. Consistent and equitable access provides an opportunity to coordinate care across settings for ARLD and further opportunity to extend access to specialist skills to people with NAFLD. Access to Multi-Disciplinary Teams (MDT) for liver disease provides further opportunity to coordinate care. For patients approaching end of life there is a high physical symptom burden and higher levels of psychological distress with high caregiver burden. Death commonly occurs in hospital, with a limited window to discuss advance care planning and offer palliative care. Access to expertise is also an important consideration for IBS, aligned with the ambition to support earlier diagnosis closer to home, delivery of first line intervention in the community and a defined pathway for more complex interventions. A MDT for IBS provides an opportunity to bring professional groups together to address clinical, lifestyle, dietary, pharmacological and psychological treatment to deliver a coordinated approach and avoid fragmentation. There are recognised gaps in current provision, including access to psychological therapies, particularly for those with refractory IBS (defined as people who do not respond to treatment after 12 months and develop a continuing symptom profile). Other interventions are evidenced as effective, including the Fermentable, Oligo-, Di, Mono-Saccharides and Polyols (FODMAP) Diet for people who have not responded to first line interventions. A local pilot of direct referral to a dietitian evidenced a 67% resolution in gut symptoms and 97% satisfaction in the service. Potential savings were demonstrated between £50,718 to £139,986 per annum. This provides an important opportunity to consider the development of an extended role of the dietitian to support pathway delivery across the system.
Long Term Care	Mental health problems directly affects 25% of the population during any given year, equivalent to 275,000 local citizens. People with IBS are more likely to suffer from psychological disorders. Of 50% of people with IBS who seek treatment, 90% have psychological disorders. Access to psychological therapy, particularly Cognitive Behaviour Therapy (CBT), is important for people who fail to respond to conventional treatment for IBS. For people dependent on alcohol, the prevalence of mental health problems is significantly increased. Mental health problems are experienced by 70% of drug and 86% of alcohol users in community substance misuse (SM) treatment. People with co-existing mental health problems also have heightened risk of physical health problems. It is not uncommon for people with SM to experience difficulties in accessing mental health support. Fundamental principles including 'everyone's job' and 'no wrong door' support access to care. Future ambitions in this area of care include improved access to services underpinned by the principles of collaborative care, bringing services together to deliver person centred care which addresses mental and physical health and alcohol/drug use. Key elements include mental health crisis response, meeting physical health needs, crisis resolution and home treatment teams and integrated care for co-existing mental health and alcohol/drug use conditions by addressing both needs at the same time. A multi-agency approach with defined care pathways supports planned care through components of treatment and between providers of those components. They are a methodology for mutual decision-making and organising care, supporting a seamless journey through the treatment pathway. Alcohol treatment pathways begin with identifying alcohol-use, but supports patients and caregivers in knowing what treatment is needed and how it can be accessed. This includes the development of comprehensive links between primary, community, secondary care and community alcohol treatment services and the points where treatment transfers between services. This includes the coordination between HVSU posts, ACTs in secondary care, Alcohol LTC Teams in the community and SM Services. Due to the strong correlation with co-existing mental health and associated physical health problems collaborative care and access to a range of services supports delivery of care centred on the needs of the person, including homeless health teams, housing and criminal justice. These include consideration to mental and physical health and alcohol/drug use, but also social care needs. The system Alcohol Pathways Group provides strategic oversight to this area of care, bringing all services together to develop the pathway for the citizens of Nottingham and Nottinghamshire. Locally the Multi-Disciplinary Team for people with severe multiple disadvantage is an example of a team brining skills and experience together to coordinate care around the needs of the person. Further opportunities exist to develop multi-disciplinary teams where there are identified gaps in provision whilst avoiding duplication.

6. Proposed future care system

Home

Planned/Scheduled

Prevention and Self-care – Obesity, Drugs and Alcohol, Education

- Raising population level understanding of harm and what constitutes higher risk – obesity and alcohol
- Increased public health messages/ health promotion e.g. knowing units of alcohol consumed and impact of excess/healthy eating principles in a range of locations e.g. supermarkets/pubs
- Agreed/trusted social media, online, apps e.g. NHS App/PKB where appropriate e.g. 'Healthier You'/Change4Life, but also other formats accessible to vulnerable groups
- Social prescribing and link workers - to support population to have appropriate knowledge and skills
- Public awareness of services available - substance misuse/peer support groups/lifestyle change – and how to self-refer
- Support for vulnerable homeless, both drug and alcohol misuse irrespective of access to postcode – access to HCP at drop in centres e.g. Homeless Health Team
- Wrap around MDT meetings for vulnerable groups
- Education of HCPs IBA, severe multiple disadvantage, where to signpost and creation of champions health and care
- Consistent access to Home Detox Programme following comprehensive risk assessment and access to support (family and HCP)
- Awareness of services to provide support and advice
- Education of workforce and person with SMD to aid mutual understanding

Sustainable by:

- Improved support and understanding of risks allows early prevention
- Promotes awareness to support self-care and independence

Detection and Diagnosis – Referral and Triage, Early Diagnosis Closer to Home

- Systematic and consistent provision of IBA
- Access to Fibroscan in range of settings to capture vulnerable groups, including the home

Sustainable by:

- Earlier diagnosis and intervention to improve outcome

Treatment and Condition Management – Demand and Capacity, Coordination of Care, Skills and Expertise in the Right Place

- Virtual service offer e.g. obesity/NAFLD to support long term lifestyle change
- Consistent and equitable access to Alcohol Related LTC Service

Sustainable by:

- Improved condition management to support self-care, confidence and reduce overall healthcare use

Long Term Care – Psychological Support, Multi-provider Approach

- Access to IAPT (including self-referral) – including people with stable alcohol use
- Signposting to support groups
- Access to other psychological therapies for people with more complex mental health needs e.g. CBT for IBS
- Virtual offer to support uptake to psychological and multi-agency support
- Information for HCP on services available to support appropriate signposting
- Visibility of information to support coordination of care

Sustainable by:

- Promoting self-care and independence
- Improved condition management
- May reduce acute admission and emergency attendances

Urgent – 24 hours

Prevention and Self-care

- Access to 7 day support for Home Detox to support earlier discharge
- 111 – patient and family awareness when to access for advice and support
- Crisis support – to prevent relapse with advice from substance misuse services

Sustainable by:

- Promotes self-care and improved condition management
- Reduces LOS and future demand on emergency care

Long Term Care

- Crisis Resolution and Home Treatment

Sustainable by:

- May prevent acute admission

Emergency/Crisis – 4 hours

Prevention and Self-care

- Crisis support – to prevent relapse with advice from substance misuse services
- 999 – patient and family awareness when to access

Sustainable by:

- Promotes self-care and improved condition management
- Reduces future demand on emergency care

Treatment and Condition Management

- Access to advice from liver consultant on call/ Gastro reg. to suggest plan and avoid admission where possible

Sustainable by:

- May prevent acute admission

Colour KEY to information source: Steering Group Evidence Document/ Guideline Patient Engagement

NOTE: In further developing and implementing the proposals set out above as part of our focus, each partner organisation within the ICS will continue to ensure that they comply with their statutory duties and system/organisational governance processes, particularly (but not limited to) those relating to patient and public involvement; equality and inequality analysis

6. Proposed future care system

Neighbourhood

Planned/Scheduled

Prevention and Self-care – Obesity, Drugs and Alcohol, Education
- Consistent weight management offer across service tiers, enhancing tier 3 services with access to specialist advice and pathway for referral to tier 4
- Social prescribing and link workers to support signposting
- Annual review for people with mental health condition to include education and self-care
- Education of HCP to ensure consistent understanding of numbers e.g. units of alcohol
- Public awareness of health checks and value of signposting to support

Sustainable by:
- Improved support and understanding of risks allows early prevention and self-care

Detection and Diagnosis – Referral and Triage, Early Diagnosis Closer to Home
- Systematic and Consistent provision of IBA
- Consistent approach to referrals linked to Audit C scoring
- Increase uptake to Health Checks (SMI, LD and NHS)
- Questions around illicit drug use to support identification and signpost to treatment
- Consistent and equitable triage and advice and guidance across the system
- Hepatology hub model with expertise across primary and secondary care
- Education of HCP on signs and symptoms to avoid reliance on blood results e.g. LFTs
- Identification of high risk factors for Hep C to signpost to screening programme
- Fibroscan to be accessible across settings and closer to the patient e.g. substance misuse services, weight management services
- Access to Fibroscan results at Health check
- Education of HCP on the liver pathway and use of Fibroscan
- Pathway for use of Faecal Calprotectin to support appropriate identification of IBS
- LFTs often normal but concern regarding physical health – access to diagnostics

Sustainable by:
- Early detection and signposting to intervention, reducing unnecessary diagnostic tests

Treatment and Condition Management – Demand and Capacity, Coordination of Care, Skills and Expertise in the Right Place
- Enhanced community hepatology, linked to demand and health inequalities
- Virtual offer and telemedicine
- Access to substance misuse services locally to improve engagement
- Consistent and equitable access to Alcohol LTC teams to support condition management
- Access to palliative care advice and support
- Access to services to prevent deconditioning e.g. dietetic advice with early identification to prevent malnutrition for people with decompensated liver disease
- Access to first line interventions for e.g. NAFLD/IBS led by appropriate professional e.g. dietitian to support principles of right person, first time and reduce reconnecting through the system
- Role of Alcohol Care Team with developed links with HVSU and LTC teams across settings
- Coordination of care across primary, community and secondary care to support condition management

Sustainable by:
- Timely access to specialist advice and coordination of care to support condition management

Long Term Care – Psychological Support, Multi-provider Approach
- Access to MH Services across the system working with Substance Misuse Services
- Multi-agency team for Severe Multiple Disadvantage accessible in City and County
- Interoperability of systems to support visibility of information across settings
- Access to mental health support with substance misuse issues to treat whole person

Sustainable by:
- Improved access and coordination of care

Urgent – 24 hours

Prevention and Self-care
- Access to specialist advice in Urgent Care Centres

Sustainable by:
- Promotes self-care and improved condition management
- Reduces future demand on emergency care

Detection and Diagnosis
- Appropriate presence on DoS for 111 algorithms to work and ensure people are transferred or referred to the right place

Sustainable by:
- Early detection and signposting to intervention
- May reduce future demand on emergency care

Emergency/Crisis – 4 hours

Detection and Diagnosis
- Link to interventions via police as many of the crimes can be linked to D&A abuse

Sustainable by:
- Early detection and signposting to intervention
- May reduce future demand on emergency services

Colour KEY to information source: Steering Group Evidence Document/ Guideline Patient Engagement

NOTE: In further developing and implementing the proposals set out above as part of our focus, each partner organisation within the ICS will continue to ensure that they comply with their statutory duties and system/organisational governance processes, particularly (but not limited to) those relating to patient and public involvement; equality and inequality analysis

6. Proposed future care system

Acute

Planned/Scheduled

Prevention and Self-care – Obesity, Drugs and Alcohol, Education

- Education of HCP to develop culture, skills and confidence in IBA principles, acknowledging stigmatising effect
- Staff strategy linked to alcohol to support HCP wellbeing and engagement with IBA with patients
- Education of HCP in relation to Narcotic Bowel Syndrome
- Importance of identifying and signposting to support
- Education to support understanding and communication with people with substance misuse and SMI e.g. unconscious bias training

Sustainable by:

- Improved support and understanding of risks allows early prevention
- Promotes awareness to support self-care and independence

Detection and Diagnosis – Referral and Triage, Early Diagnosis Closer to Home

- IBA across acute setting, for alcohol use, with appropriate signposting – aligned with CQUIN with infrastructure to support e.g. templates
- Diagnostic pathway primarily in community with access to invasive tests e.g. liver biopsy when appropriate
- Consistent approach to the diagnosis of IBS with consideration to symptoms and markers to exclude other causes e.g. FIT test/TTG/Faecal Calprotectin
- Access to Fibroscan in inpatient settings for patients identified at risk

Sustainable by:

- Early diagnosis and intervention supports condition management and reducing future demand on healthcare
- Enhanced coordination of care

Treatment and Condition Management – Demand and Capacity, Coordination of Care, Skills and Expertise in the Right Place

- Hepatology clinics in acute settings aligned with community delivery
- Developed links between community LTC teams and specialist teams in acute setting
- Day case provision to prevent admission e.g. decompensated liver disease
- Substance misuse workers in inpatient settings
- Navigation of the patient across settings and teams to support seamless transition of care
- Pathway for complex IBS/Functional Bowel Disorders with access to specialist skills as part of MDT (including dietitian and psychologist)

Sustainable by:

- Reduces overall healthcare demand
- Reduces future admissions
- Improves access to specialist advice and coordination of care

Long Term Care – Psychological Support, Multi-provider Approach

Access to CBT for patients with IBS/Functional Bowel Disorders with mental health connected into MDT

Acute clinicians supporting multi-agency approach e.g. MDT for severe multiple disadvantage

Sustainable by:

- Promoting self-care and independence
- Reduces future attendances

Urgent – 24 hours

Treatment and Condition Management

- Hot clinic to support admission avoidance

Sustainable by:

- May prevent acute admissions

Emergency/Crisis – 4 hours

Detection and Diagnosis

- IBA delivered in ED
- Learning from SCALES (Structured Conversations About Lifestyle in the Emergency Setting) delivered in ED to screen for Hep C and signpost to intervention
- Fibroscan in ED to support identification and referral to community services

Sustainable by:

- Early detection and signposting to intervention

Treatment and Condition Management

- High volume service user post in ED networked with community

Sustainable by:

- Early intervention and improved condition management
- Reduces future demand on emergency care

Long Term Care

- Complex needs has to be more effectively addressed – HVSU posts in ED

Sustainable by:

- Early intervention and improved condition management
- Reduces future demand on emergency care

Colour KEY to information source: Steering Group Evidence Document/ Guideline Patient Engagement

NOTE: In further developing and implementing the proposals set out above as part of our focus, each partner organisation within the ICS will continue to ensure that they comply with their statutory duties and system/organisational governance processes, particularly (but not limited to) those relating to patient and public involvement; equality and inequality analysis

Integrated Care System
Nottingham & Nottinghamshire

Future Care System – Summary

www.healthandcarenotts.co.uk @NHSNottingham

Availability

Level of Care

Availability / Level of Care	Acute/ MH Hospital	Neighbourhood	Home
4 hours or less – 24/7	• IBA delivered in ED • SCALES in ED • Fibroscan in ED to support identification and referral to community services • High Volume Service User post in ED networked with community	• Link to interventions via police as many crimes can be linked to D&A abuse	• 999 – patient and family awareness when to access • Substance misuse services upskilling people to know what they can do to get help in an emergency • Access to advice from liver consultant on call/ Gastro reg. to suggest plan and avoid admission where possible
Urgent Care/ within 24 hours – 7 days	• Hot clinic to support admission avoidance	• Specialist advice accessible in UCC • Pathway to divert patients from UCC to established pathway for Fibroscan • Appropriate presence on DoS for 111 algorithms to work and support signposting to the right place	• Access to 7 day support for Home Detox to support earlier discharge • Substance misuse services upskilling people to know what they can do to get help urgently • 111 – patient and family awareness when to access urgent advice • Crisis Resolution and Home Treatment (CRHT)
Scheduled – Appt based	• Systematic and consistent provision of IBA, with appropriate signposting and infrastructure to support e.g. templates • Education of HCP and strategy to support staff wellbeing and engagement with IBA, developing the culture, skills and confidence in the principles, acknowledging stigmatising effect • Substance misuse workers in key inpatient settings, including mental health settings • Education of HCP across settings in relation to Narcotic Bowel Syndrome • Diagnostic pathway primarily in community with access to invasive tests e.g. liver biopsy when appropriate • Consistent approach to the diagnosis of IBS with consideration to symptoms and markers to exclude other causes e.g. FIT test/TTG/Faecal Calprotectin • Access to Fibroscan in inpatient settings for patients identified at risk • Hepatology clinics in acute settings aligned with community delivery • Role of Alcohol Care Team with developed links with HVSU and LTC teams across settings • Day case provision to prevent admission e.g. decompensated liver disease • Navigation of the patient across settings and teams to support seamless transition of care • Access to specialist skills as part of MDT for IBS (including dietitian and psychologist) • Access to CBT for patients with IBS/Functional Bowel Disorders with mental health connected into MDT • Acute teams supporting PHM and multi-agency approach to provide wrap around detection, treatment and care	• Systematic and consistent provision of IBA • Consistent weight management services across service tiers* as described in diabetes strategy • Increase uptake to annual health checks (SMI, LD and NHS) • Identification of risk factors to signpost to Hep C screening • Education of HCP -consistent understanding of numbers/signs and symptoms/pathways/services • Social prescribing and link workers to support signposting • Consistent and equitable triage and advice and guidance across the system • Hepatology hub model with expertise across primary and secondary care • Fibroscan accessible closer to the patient, with results accessible at Health Check • Pathway for use of Faecal Calprotectin to support appropriate identification of IBS • Community hepatology linked to demand and health inequalities • Consistent and equitable access to Alcohol LTC team and HVSU post, networked together with ED • Multi-agency team for severe multiple disadvantage available across the system • Prevention of deconditioning through access to specialist advice e.g. malnutrition • First line interventions for e.g. NAFLD/IBS accessible and led by appropriate professional e.g. dietitian • Consistent and equitable access to palliative care support • Equitable access to addiction psychiatrist across City and County • Psychological therapies accessible for people with LTC e.g. IBS • Appropriate pathways for co-morbidities including substance misuse, mental health and LTC • Virtual offer/telemedicine, with interoperability of systems • Coordination of care across settings	• Systematic and consistent provision of IBA • Raising population level understanding of harm and what constitutes increasing and higher risk – including alcohol and obesity • PHM approach to proactively seek and case manage at risk groups to support screening and intervention e.g. prisons • Increased public health messages and working with partners to reduce risks e.g. licensing and planning regulations • Agreed/trusted social media, online, apps e.g. NHS App/PKB where appropriate, with other formats accessible to vulnerable groups • Public awareness of services available e.g. substance misuse/peer support groups • Education of HCPs in relation to IBA, severe multiple disadvantage and where to signpost, with development of 'champions' across health and care • Social prescribing and link workers - to support knowledge and skills of patients • Access to Fibroscan in range of settings to capture vulnerable groups • Access to substance misuse services locally • Equitable access to support for vulnerable homeless from Homeless Health Team • Consistent access to Home Detox Programme following comprehensive risk assessment and access to support (family and HCP) • Consistent and equitable access to Alcohol Related LTC Service • Access to IAPT with self-referral (including people with stable alcohol use) • Virtual offer, online and video consultation to support uptake to psychological therapies and multi-agency support

Prevention through 3 tier approach to **education and awareness** across the ICS:

- Population – raising awareness of risk and harm
- Workforce – IBA skills and confidence
- Patients – how to access advice

High Priority

Far more needs to be done to raise awareness of the prevention opportunities linked to gastroenterology, from addressing risk factors through to helping people with gastroenterology conditions manage their long-term condition.

Education of citizens to raise population level understanding of harm and what constitutes increasing and higher risk linked to the key risk factors of alcohol and drug use and obesity. This should include increased public health messages and working with partners to reduce risks e.g. licensing and planning regulations.

Access should be readily available to trusted and approved sources of information (e.g. NHS App/PKB) to support ambitions to raise awareness. Other formats should be accessible for vulnerable groups. Self-management tools should also be promoted as approved resources available for people to complement the existing Face to Face (F2F) offer and support self-care. This should include information to raise awareness of services available e.g. substance misuse and peer support groups.

Education of the broader workforce provides an opportunity to support the system in delivering systematic and consistent IBA, developing the skills and confidence in the principles, acknowledging the stigmatising impact and understanding of complex needs, including those with severe multiple disadvantage. The development of IBA champions, both at a strategic and operational level, will support system workforce development to normalise conversations. A system-wide approach to education also supports the delivery of consistent and evidence-based practice across all settings. Embedding training delivery across the ICS will support increased knowledge and confidence in gastroenterology prevention, treatment and condition management. This should include opportunities to raise awareness of opiate prescription for benign pain and the increased risk of bowel dysfunction.

Impact & Benefit

- Increased prevention through raised awareness
- Enhanced self-care
- Reduce opiate prescription lowering incidence of bowel dysfunction and referral to secondary care

Alignment – to deliver a whole system education programme it is key that a universal approach is taken and alignment across the ICS to ensure consistent and equitable education of citizens, patients and the workforce

Early **detection** and **diagnosis**:

- Targeted approach to seek and case manage high risk groups, including alcohol and drug use and obesity, using Population Health Management principles
- Access to Fibroscan in a range of settings to capture vulnerable groups

High Priority

As prevention and self-care approaches and enhanced education are developed to support reduction in risk factors, more needs to be done to detect high risk factors. This should include a PHM approach to proactively seek and case manage at risk groups to support screening and intervention and should include alcohol and drug use and obesity. Opportunities exist from programmes, such as Structured Conversations About Lifestyle in the Emergency Setting (SCALES) in ED, to identify risk factors. Enhancing uptake to NHS, Learning Disabilities (LD) and Serious Mental Illness (SMI) Health Checks will also support earlier detection and proactive signposting to advice and support. Linking to interventions via other emergency services e.g. police and fire provides additional opportunities to detect risk factors.

Community Fibroscan is evidenced to support increased diagnosis of liver disease with high attendance and satisfaction rates. Developing a community programme to extend access and which targets at risk individuals, particularly from alcohol and obesity services, will enable early detection. Links with social prescribers can form the structure to develop community Heaptology Hubs, allowing earlier access to advice and treatment. At present Fibroscan results are not easily accessible across settings, interoperability of systems will ensure visibility across settings to support shared decision-making and early intervention.

Impact & Benefit

- Earlier detection through a targeted approach to identify high risk groups
- Reduced liver disease under 65y mortality
- Reduction in health inequalities
- Earlier diagnosis and intervention through widespread and equitable access to Fibroscan

Alignment - for improved detection and diagnosis alignment at an ICS level will support a consistent, equitable and targeted approach

NOTE: In further developing and implementing the proposals set out above as part of our focus, each partner organisation within the ICS will continue to ensure that they comply with their statutory duties and system/organisational governance processes, particularly (but not limited to) those relating to patient and public involvement; equality and inequality analysis

7. Transformation Proposal

Consistent and equitable **access** to **lifestyle interventions** to reduce risk: • Systematic and consistent provision of Identification and Brief Advice (IBA) • Local obesity pathway which supports timely access to service tiers • Substance misuse services **Med Priority**	As the gastroenterology transformation proposals evolve supporting improved prevention and detection, more needs to be done to support consistent and equitable access to lifestyle interventions. Fundamental to signposting citizens to information or signposting to specialist advice, including SM services and substance misuse workers in the acute setting, is the systematic and consistent adoption of IBA to reduce the burden of alcohol harm. This should consider all settings, including primary care and ED where IBA has supported identification and case management of HVSU. Success in the adoption of IBA in the ED setting has been supported by the inpatient CQUIN. Levers should be considered to support system wide adoption. As previously described, the development of IBA champions and an education strategy to develop skills and confidence in IBA will support system wide adoption with the principles considered as everyone's responsibility. Currently provision of education in relation to IBA is not equitable across City and County, with opportunities to develop a consistent approach. Technological solutions will also support capturing IBA conversations, with access to templates and visibility of information across settings. A multi-agency approach to review access and coverage across service tiers (1-4), to best practice recommendations, is required to support the implementation of a local obesity pathway to support a reduction in obesity incidence across the ICS. Consideration should also be given to strategies to improve the wider determinants of health, including density of food outlets and access to green spaces e.g. Future Parks Project. Services should be tailored to population needs and allow timely referral to appropriate interventions to support obesity treatment to prevent progressive liver damage . They should include the core components of dietary intake, physical activity and behaviour change and provide access to a multi-professional team (MDT) with specialist weight management skills, including links between Public Health (PH) clinicians. At present there are two tier 2 models across the ICS and a very limited tier 3 service for people progressing to the tier 4 service for bariatric surgery. Referral for this intervention and prescriptions for dietary treatment are amongst the lowest in England despite some of the highest levels of obesity in the ICS. **Impact & Benefit** • Earlier detection and signposting for risk factors • Addressing risk factors to prevent development of more serious ill health **Alignment –** improved access to lifestyle interventions should be aligned at an ICS level to ensure consistent and equitable access
Harmonise **liver pathways** across the ICS to support **equity** of **access** to hepatology oversight and supervision **Med Priority**	Harmonised liver pathways across the system supports equity of access to hepatology oversight and supervision. Access to consistent and equitable advice and guidance across the system supporting this ambition. Risk stratification of the liver pathway will support organisation of oversight and supervision across the settings where patients access care, including community and secondary care, and should consider health inequalities of the local population. Locally, access to hepatology clinician oversight, supported by specialist nursing roles, is not equitable with identified gaps in provision in Mid Notts. Connectivity with hepatologists and other members of the team, can be enhanced by virtual connections so that supervision and oversight can be delivered irrespective of setting. **Impact & Benefit** • Early intervention and enhanced care closer to home • Equitable access to specialist oversight • Reduced health inequalities • Reduced admissions **Alignment –** harmonising liver pathways should be aligned at an ICS level.

NOTE: In further developing and implementing the proposals set out above as part of our focus, each partner organisation within the ICS will continue to ensure that they comply with their statutory duties and system/organisational governance processes, particularly (but not limited to) those relating to patient and public involvement; equality and inequality analysis

Equitable **access** to **specialist advice and care** with enhanced community provision across the system: • Expansion of Alcohol Long Term Condition Team to include Non Alcoholic Fatty Liver Disease • Palliative care support **Med Priority**	Access to specialist skills contributes to improved outcomes and experience, as well as reducing hospital admissions, ED attendances and length of stay (LoS). For ARLD expertise includes HVSU post, ACT and Alcohol LTC team working across acute and community settings. Opportunities exist to enhance partnership working and strengthen community provision by defining and upskilling roles. Fundamental to ensuring appropriate and timely access to specialist advice is equity of access. Locally, gaps exist across current acute and community provision across Nottingham and Nottinghamshire for all roles described and which consider 7 day access to expertise. Current provision as described is limited to ARLD, with opportunities to extend to people with NAFLD. Access to specialist advice should also consider access to timely advice and treatment to prevent deconditioning associated with liver disease, including malnutrition, with 60-90% of people with decompensated liver disease malnourished. As liver disease progresses palliative and end of life care support should be considered due to the high physical symptom burden, higher levels of psychological distress and high caregiver burden experienced by patients and their carers. This should include education to support conversations regarding palliative and end of life care and advance care planning, access to the Electronic Palliative Care Coordination System (EPaCCs) to coordinate care and access to specialist palliative care teams to provide support. Enhanced partnership working and strengthened relationships supports the ambition to achieve equitable access to specialist advice and care. Technology supports connections between the patient and specialist teams to support shared decision-making in the delivery of person centred care. Interoperability of IT systems and with virtual connections with the patient can support coordination of care. **Impact & Benefit** • Reduced admissions due to access to specialist advice in the community • Reduced mortality due to earlier intervention and access to specialist advice • Reduced ED attendances • Reduced length of stay **Alignment –** to increase access to specialist skills that achieves equity of provision, alignment should be at an ICS level.
Develop a **Network MDT** for liver disease across the ICS to support **coordination of care** and partnership working: • Physical health • Mental health • Social care and housing **Med Priority**	Whilst hepatology oversight and access to specialist advice and care are fundamental to improving outcomes and addressing physical health needs, it is important to consider all care requirements centred on the needs of the person. This includes social care, housing and mental health. A Network MDT for liver disease supports the delivery of a multi-agency approach to coordinate care through components of treatment and between providers of those components, supporting mutual decision-making and organisation of care to deliver a seamless journey through the treatment pathway. Locally, the Multi-Disciplinary Team for people with severe multiple disadvantage is an example of a team bringing skills and experience together to coordinate care around the needs of the person. Supporting equity of access to this team and further development of a Network MDT for liver disease proving opportunity to coordinate care without duplication. Oversight to MDT development can be provided by the established Alcohol Pathways Group, where appropriate. Fundamental to delivery of a Network MDT is access to technology to support virtual connections across the MDT, interoperability of systems to support visibility of information and data sharing agreements where required. **Impact & Benefit** • Reduced admissions by addressing all health and care needs • Improved outcomes and reduced mortality through coordination of care **Alignment –** a Network MDT to coordinate care should be aligned at an ICS level.

NOTE: In further developing and implementing the proposals set out above as part of our focus, each partner organisation within the ICS will continue to ensure that they comply with their statutory duties and system/organisational governance processes, particularly (but not limited to) those relating to patient and public involvement; equality and inequality analysis

7. Transformation Proposal

Develop an **agreed** and **consistent pathway** and MDT for IBS, including: • Diagnosis in primary care • Access to first line interventions in primary care • Access to treatment strategies for complex cases e.g. FODMAP **High Priority**	Opportunities that have been described for liver disease should also be considered for IBS. Developing closer to home diagnostic and treatment pathways for IBS will impact secondary care referrals, with opportunities to reduce demand and improve outcomes through earlier intervention. Fundamental to delivery is the development of a system pathway and MDT with relevant skill and experience for IBS based on evidence-based practice which will inform future organisation of services in this area of care. Development of a diagnostic pathway will support this process, including rule out tests such as Faecal Calprotectin, as well as Faecal Immunochemical Test (FIT) test and Tissue Transglutaminase Antibodies (TTG) to rule out other causes. Education of GPs and other healthcare professionals, particularly regarding low yield diagnostics, will support consistent adoption of the pathway. For some patients who fail to respond to first line interventions, the pathway should also include access to complex interventions. This should include consistent and equitable access to FODMAP intervention provided by dietitians with relevant training. Opportunities exist to develop an extended role of the dietitian, with examples locally and nationally of dietetic-led services supporting pathway delivery. Technology will support extending access to this intervention with opportunities for virtual consultations. **Impact & Benefit** • Earlier diagnosis and intervention from consistent guidance, referral pathway, education and access to first line interventions • Reduced secondary care referrals • Timely access to complex interventions to reduce multiple presentations to secondary care **Alignment –** development of an agreed and consistent pathway and MDT for IBS across the system requires alignment at an ICS level.
Appropriate and **timely mental health support** for people with long term conditions or co-existing mental health and substance misuse issues **High Priority**	As described, 90% of patients who seek help for IBS symptoms have psychological disorders. Locally, referral to psychological support is limited and should be considered in the development of an IBS pathway. This could include access to psychological therapies for people with long term conditions (LTC) and alignment with MDT to support coordination of care. A significant proportion of people with substance misuse issues will also have co-existing mental health issues but can find it difficult to access timely mental health support. Cross-working between SM and Mental Health (MH) services is required to facilitate joined up care. This should include SM specialists working with Local Mental Health Teams (LMHT) and also supporting patients and staff in MH inpatient settings, as well as mental health staff working directly with SM services. Flexibility in some key services is also required to acknowledge the issues faced by a patient group that may experience severe and multiple disadvantage (SMD) and find access to traditional services challenging. Services should also be able to refer people with high levels of complexity (for example they might have co-existing mental health and substance misuse issues and also be at risk of homelessness) to a SMD focussed MDT to ensure a co-ordinated approach to problem solving and care. **Impact & Benefit** • Reduced secondary care attendances, including ED • Reduced mortality through enhanced mental health support **Alignment –** equitable access to timely mental health support across the system requires alignment at an ICS level.

NOTE: In further developing and implementing the proposals set out above as part of our focus, each partner organisation within the ICS will continue to ensure that they comply with their statutory duties and system/organisational governance processes, particularly (but not limited to) those relating to patient and public involvement; equality and inequality analysis

Integrated Care System
Nottingham & Nottinghamshire

Gastroenterology Transformation Proposal

www.healthandcarenotts.co.uk @NHSNottingham

	Priority (High/ Med/ Low)	Alignment (ICS/ ICP/ PCN)	Workforce	Technology	Estate/ Configuration	Finance/ Commissioning	Culture	Benefits (*Less than £20,000 per QALY is cost effective)
Prevention through 3 tier approach to **education and awareness** across the ICS: • Population – raising awareness of risk and harm • Professionals – IBA skills and confidence • Patients – how to access advice	High	ICS	•IBA champions - roadshows for population and education for professionals •Link workers as champions across system •Education of GPs and1^{0} care staff to support awareness and consistency at PCN level	•Further App and Online development to support consistent and approved resources •Availability of information in range of formats •Social media to deliver accurate information		•Levers haven't worked e.g. incentives. Need to consider alternative levers e.g. QOF	•IBA everyone's responsibility and must consider stigmatising impact •System workforce development PHE to deliver consistently and normalise conversations •IBA champions at a strategic and operational level	• **Increased prevention through raised awareness** • **Enhanced self-care** • **Reduced opiate prescription lowering incidence of bowel dysfunction and referral to secondary care**
Early **detection** and **diagnosis**: • Targeted approach to seek and case manage high risk groups, including alcohol and drug misuse and obesity, using Population Health Management principles • Access to Fibroscan in a range of settings to capture vulnerable groups	High	ICS	•Protected learning time for GPs and PN to implement PHM approach •Education and training on the use and interpretation of Fibroscan (+/- ELF test) •Education to roll out screening and testing programme in GP practices	•Equitable access to Fibroscan in agreed settings across the system with an agreed pathway •IT interface to share information •Software to identify Hep C risk factors to signpost to screening	•Agreed settings across the system supporting uptake from vulnerable groups	•Clarity regarding any commissioning changes to enable approach •ELF test to complement Fibroscan and support risk stratified approach	•PHM approach to target high risk groups	• **Earlier detection through a targeted approach to identify high risk groups** • **Earlier diagnosis and intervention through widespread and equitable access to Fibroscan** • **Reduction in liver disease under 65 yr mortality** • **Reduction in health inequalities**
Consistent and equitable **access** to **lifestyle interventions** to reduce risk: • Systematic and consistent provision of Identification and Brief Advice (IBA) • Local obesity pathway which supports timely access to service tiers • Substance misuse services	Med	ICS	•Education from IBA champions •Equitable access to IBA across City and County to support education •Develop workforce with knowledge and skills to deliver local obesity pathway across service tiers	•Technology to capture IBA conversations •Virtual offer and consultations as part of local obesity pathway	•To deliver local obesity pathway	•Approach to support systematic IBA across the system •IBA CQUIN in inpatient setting •Other levers e.g. QOF •Funding and commissioning for local obesity pathway across service tiers	•IBA embedded in practice across the system and considered everyone's responsibility •Consistent understanding of lifestyle risk factors as contributing factors to severe ill health	• **Earlier detection and signposting for risk factors** • **Addressing risk factors to prevent development of more serious ill health**
Harmonise **liver pathways** across the ICS to support **equity** of **access** to hepatology oversight and supervision	Med	ICS	•Capacity for clinician and nurse specialist roles in Mid Notts •Education of HCP across settings to enhance skills and confidence and deliver a risk stratified approach across settings	•Virtual connections to support connectivity with hepatology clinicians	•Access to estate based on risk stratification e.g. increased community clinic space	•Funding and commissioning to support equity of access	•Enhanced partnership working •Risk stratified approach	• **Early intervention and enhanced care closer to home** • **Equitable access to specialist oversight** • **Reduced health inequalities** • **Reduced admissions**

NOTE: In further developing and implementing the proposals set out above as part of our focus, each partner organisation within the ICS will continue to ensure that they comply with their statutory duties and system/organisational governance processes, particularly (but not limited to) those relating to patient and public involvement; equality and inequality analysis

Gastroenterology Transformation Proposal

Integrated Care System
Nottingham & Nottinghamshire

www.healthandcarenotts.co.uk @NHSNottingham

	Priority (High/ Med/ Low)	Alignment (ICS/ ICP/ PCN)	Workforce	Technology	Estate/ Configuration	Finance/ Commissioning	Culture	Benefits (*Less than £20,000 per QALY is cost effective)
Equitable **access** to **specialist advice and care** with enhanced community provision across the system: • Expansion of Alcohol Long Term Condition Team to include Non Alcoholic Fatty Liver Disease • Palliative care support	Med	ICS	•Define roles across acute and community settings •Capacity to extend offer to NAFLD and ensue equity of access across system •HVSU posts across settings •Education aligned with role definition and to upskill nursing staff •Education to support consistent support across health and care for palliative care	•Technology to support communication between teams in community and acute settings •Access to EpaCCS to support access to palliative care support	•Community space to support enhanced offer	•Funding and commissioning to extend capacity to NAFLD and ensure equitable access •Funding for HVSU post across settings	•Enhanced partnership working and strengthened relationships •Risk management to support stratified approach	• **Reduced admissions due to access to specialist advice in the community** • **Reduced mortality due to earlier intervention and access to specialist advice** • **Reduced ED attendances** • **Reduced length of stay**
Develop a **Network MDT** for liver disease across the ICS to support **coordination of care** and partnership working: • Physical health • Mental health • Social care and housing	Med	ICS	•MDT defined with relevant skills and experience aligned with existing SMD MDT •Housing & social care capacity to support MDT •Access to Homeless Health Team 7 days a week •Education of MDT to deliver consistent approach	•Virtual connections to support MDT •Interoperability of systems to support visibility of information •Data sharing agreements		•Pathway commissioning learning from the SMD MDT without duplication	•Enhanced partnership working •Operational and strategic delivery aligned, with oversight from Alcohol Pathways Group, where appropriate	• **Reduced admission by addressing all health and care needs** • **Improved outcomes and reduced mortality through coordination of care**
Develop an **agreed** and **consistent pathway** and MDT for IBS, including: • Diagnosis in primary care • Access to first line interventions in primary care • Access to treatment strategies for complex cases e.g. FODMAP	High	ICS	•Extended role of dietitian and capacity to support FODMAP interventions •Access to psychological support as part of MDT •Education of GPs and HCP to support diagnosis and first line interventions	•Use of E referral templates and A&G to increase confidence in referrals •Access to information to support first line interventions •Use of technology for consultations and MDT	•Scope space requirements aligned with pathway •Utilise F2F delivery/group sessions and increased virtual consultations	•Funding and commissioning arrangements for the pathway	•-Enhanced partnership working •Skills of the AHP role built into the culture	• **Earlier diagnosis and intervention from consistent guidance, referral pathway, education and access to first line interventions** • **Reduced secondary care referrals** • **Timely access to complex interventions to reduce multiple presentations to secondary care**
Appropriate and **timely mental health support** for people with long term conditions or co-existing mental health and substance misuse issues	High	ICS	•Substance misuse workers in range of settings,- key inpatient and mental health settings •Substance misuse and mental health services working together to deliver plans for high impact areas with co-existing mental health problems	•Access to online IAPT •Virtual connections with the MDT		•Funding and commissioning to support equity of access	•Development of a multi-faceted strategic approach across settings •System understanding of stable alcohol use •Partnership working	• **Reduced secondary care attendances, including ED** • **Reduced mortality through enhanced mental health support**

NOTE: In further developing and implementing the proposals set out above as part of our focus, each partner organisation within the ICS will continue to ensure that they comply with their statutory duties and system/organisational governance processes, particularly (but not limited to) those relating to patient and public involvement; equality and inequality analysis

8. Enabling Requirements

Workforce	Enhancing the future health and social care for gastroenterology services, requires the following considerations for workforce: • Widespread training of the workforce to support systematic and consistent adoption of IBA across the system with IBA champions to support delivery • Workforce required for Community Fibroscan programme, with consideration to training , validation and oversight • Education of healthcare professionals to empower them to signpost to appropriate resources and services and provide best practice advice to support self-care and condition management. • Consistent access to specialist skills across settings e.g. Dietitian, HVSU, Alcohol Care Teams, Alcohol LTC Team, Hepatologist, housing and social care • Cross pathway working (primary, secondary and community care) with specific development and expansion of the multi-professional team to meet best practice guidance and support shared decision-making and person-centred care.
Technology	The main areas in which technology can effect transformation for gastroenterology care include: • Developing an integrated IT system for the gastroenterology pathway to support visibility of information across settings • Trusted and approved resource development for signposting and self-care, with common understanding amongst HCPs - based on NHS App/PKB • Increased use of tele-medicine using virtual consultations to support coordination of care closer to home • Access to Fibroscan in a range of settings across the system
Estate	• Access to community hub space required to support enhanced community delivery • It is crucial to deliver some activity in a range of alternative community locations to ensure better local access to those with severe multiple disadvantage
Culture	• Acknowledgement that IBA is everyone's responsibility • Strategic and operational delivery aligned, with oversight from Alcohol Pathways Group where appropriate • Enhanced partnership working to deliver a multi-agency approach across health and care • Developing a multi-faceted strategic approach across settings to provide timely and appropriate mental health support • Promoting person-centred care and shared decision-making

NOTE: In further developing and implementing the proposals set out above as part of our focus, each partner organisation within the ICS will continue to ensure that they comply with their statutory duties and system/organisational governance processes, particularly (but not limited to) those relating to patient and public involvement; equality and inequality analysis

Bridge to the Future

Gastroenterology Services Future Vision:

From…		Phase 1 1st year	Phase 2 2-3 years	Phase 3 5 years+	To…
• Limited education of the population to raise awareness of risk and harm • Inconsistent provision of IBA • Inconsistent education/ training of professionals across the system • Inequitable access to services to address lifestyle risk factors	Prevention & Self-Care	•Develop plan to raise awareness campaign -Identify gaps in IBA provision across settings •Utilise PHE workforce toolkit to identify gaps in workforce strategy •Gain consensus on use of Audit C, with referral pathway and education plan •Scoping local obesity services	•3rd sector support •Develop incentives to mainstream IBA •Bespoke education programme to setting and role •PLT sessions for GP and PN •Roll out Audit C referral pathway •Confirm and implement local obesity pathway	•Changed approaches to education, awareness and self-care •IBA embedded in practice •IBA and prevention embedded in mandatory training offer •Audit C referral pathway embedded in practice •Consistent and equitable obesity services across tiers	• Wide-spread public awareness and education with access to trusted and approved resources • Systematic and consistent provision of IBA Consistent evidence-based practice to support prevention, treatment and self-management • Equitable and timely access to services to address lifestyle risk
• Limited case management to seek high risk groups • Inequitable access to Fibroscan across the system • Lack of consistency in diagnosis of IBS affecting navigation to right setting and intervention	Detection & Diagnosis	•Develop a clear strategy for active case finding by identifying high risk cohorts at PCN level •Scope locations for Fibroscan using learning from NUH and rolling out across ICS •Develop clear guidance and adjuncts available to primary care	•Pilot active case finding and roll out across the system •Roll out Fibroscan across agreed settings and develop IT interface to support visibility of information •Implement IBS diagnostic and referral pathway across the system	•Active case finding using PHM approach embedded across the system •Fibroscan accessible across the system with visibility of information across settings •IBS diagnostic pathway embedded across the system to support	• Targeted approach to seek and case manage high risk groups using a PHM approach • Equitable access to Fibroscan in a range of settings to capture vulnerable groups • Consistent diagnostic pathway for IBS in the community to signpost to the right intervention and setting
• Inequitable access to hepatology oversight and supervision • Inequitable access to specialist advice and care for all liver conditions across settings • Lack of an agreed pathway and expertise for IBS for first line interventions and complex cases	Treatment & Condition Management	•Working together to extend specialist support between acute settings •Implementing HVSU post and extend LTC team to NAFLD •Learn from NUH ACT for system roll-out •Scope palliative care provision, including access to EPaCCS •Develop pathway and MDT aligned with diagnostic guidance,	•Collaborative working embedded in hepatology provision •Look for opportunities to implement ACT •Consistent use of EPaCCS •Develop MDT workforce for IBS – including extended roles for dietitian •Develop MDT networks to support collaborative working	•Collaborative working embedded to support equitable access to hepatology oversight •Equitable access to specialist advice with enhanced community provision •Access to palliative care embedded across the system •Evaluation for IBS pathway and enhanced virtual offer •MDT embedded across pathway	• Equitable access to hepatology oversight and supervision • Equitable access to specialist advice and care for all liver conditions, with enhanced community provision • Agreed and consistent pathway and MDT for IBS for first line interventions and complex cases
• Lack of coordination of care for liver disease across physical and mental health and social care/housing • Inconsistent access to mental health support for people with LTC and substance misuse • Lack of visibility of information across settings	Long Term Care	•Develop a coordinated approach to MDT development aligned with existing SMD team •Scope use of PKB to support care coordination •Use co-production to support integration of systems •Mental health strategy and implementation plan •Scope visibility of information	•MDT developed and implemented aligned with SMD team •Implement PKB to capture care needs •Implementation of mental health strategy and implementation plan •Implement plans to ensure visibility of information and data sharing agreements	•MDT embedded to support coordination of care •Mental health transformation plan embedded to support equitable access for long-term conditions and co-existing mental health and substance misuse issues •Information visible across all settings	• Coordination care through the creation of a Network MDT for liver disease similar to the MDT for severe multiple disadvantage • Consistent and equitable access to mental health support , working together to deliver plans for high impact areas with co-existing mental health problems • Interoperability of systems to allow visibility of information to support shared-decision making

10. Conclusions and Next Steps

Conclusions	The review of gastroenterology services as part of the development of a Clinical and Community Services Strategy for Nottingham and Nottinghamshire ICS has been undertaken using a co-design model where patients, carers, key stakeholders and voluntary sector groups have collaboratively worked together to shape a vision for the future care system. The four key themes for improvement identified are: • Prevention and Self-Care (with emphasis on education of the population to raise awareness of risk and harm, education of the education of the workforce to develop skills and confidence in IBA and support prevention opportunities, education of patients to support self-care); • Detection and Diagnosis (improving detection through a PHM approach to seek and case manage high risk factors, systematic and consistent IBA, consistent and equitable access to lifestyle interventions, enhanced access to community diagnostics for gastroenterology conditions); • Treatment and Condition Management (harmonised liver pathways with equity of access to hepatology oversight, equitable and consistent access to specialist care and advice, agreed and consistent pathways and MDT for IBS); • Long Term Care (network MDT for liver disease to coordinate care, appropriate and timely mental health support for people with long term conditions or co-existing mental health and substance misuse issues) The review describes a future care system in optimal care settings and with care provided at different levels of urgency and envisages 4 high priority programmes to transform care: • **High** –Prevention through 3 tier approach to education and awareness across the ICS • **High** – Early detection and diagnosis • **High** –Develop an agreed and consistent pathway and MDT for IBS • **High** – Appropriate and timely mental health support for people with long term conditions or co-existing mental health and substance misuse issues To achieve these there are a range of enabling requirements for the ICS across workforce, estate, technology, culture and financial systems. Collectively these initiatives can transform and provide long term health improvement and sustainability in the area of gastroenterology care in the Nottingham and Nottinghamshire ICS.
Next Steps	This strategy sets the future direction of development of gastroenterology care in the ICS and it is proposed it will shape future work of the ICS in a number of ways: • The identified priorities and programmes should be used to inform commissioning ICS, ICP and PCN activity • The enabling activities require development and inclusion in the relevant ICS workstreams to inform their work programmes • The impact on estate and configuration changes require inclusion in a programme of pre-consultation business case development alongside the service changes recommended from other reviews. • The aggregate impact of the collective suite of service reviews should be used to shape focus of future service provision in acute and community settings in the ICS

NOTE: In further developing and implementing the proposals set out above as part of our focus, each partner organisation within the ICS will continue to ensure that they comply with their statutory duties and system/organisational governance processes, particularly (but not limited to) those relating to patient and public involvement; equality and inequality analysis

11. List of Abbreviations

A&G	Advice and Guidance	LD	Learning Disability
ACP	Advanced Clinical Practitioner	LFT	Liver Function Tests
ACT	Alcohol Care Team	LMHT	Local Mental Health Teams
AHP	Allied Health Professional	LTC	Long Term Conditions
App	Application	LTP	Long Term Plan
ARLD	Alcohol Related Liver Disease	MDT	Multi-Disciplinary Team
BAME	Black, Asian and Minority Ethnic	MECC	Make Every Contact Count
BMI	Body Mass Index	MH	Mental Healthcare
CBT	Cognitive Behaviour Therapy	Mid Notts.	Mansfield & Ashfield, Newark & Sherwood
CCSS	Clinical and Community Services Strategy	NAFLD	Non-Alcoholic Fatty Liver Disease
CCG	Clinical Commissioning Group	NCEPOD	National Confidential Enquiry Patient Outcomes and Death
CRHT	Crisis Resolution and Home Treatment Team	NDDI	Nottingham Digestive Diseases Interface
CVD	Cardiovascular Disease	NHFT	Nottinghamshire Healthcare Foundation Trust
CQUIN	Commissioning for Quality and Innovation	NHS	National Health Service
DoS	Directory of Service	NHSE/I	National Health Service England and Improvement
EBP	Evidence Based Practice	NICE	National Institute for Health and Care Excellence
ED	Emergency Department	NUH	Nottingham University Hospitals
ELF	Enhanced Liver Fibrosis	OOH	Out of Hours
EMAS	East Midlands Ambulance Service	OP	Outpatient
EoL	End of Life	PC	Primary Care
EPaCCs	Electronic Palliative Care Coordination System	PCN	Primary Care Network
F2F	Face to Face	PHE	Public Health England
FC	Faecal Calprotectin		
FIT	Faecal Immunochemical Test	PHM	Population Health Management
FODMAP	Fermentable, Oligo-, Di, Mono-Saccharides and Polyols	PID	Project Initiation Document
FU	Follow up	PKB	Patient Knows Best
GBD	Global Burden Disease	PN	Practice Nurse
GP	General Practitioner	QoL	Quality of Life
H&SC	Health and Social Care	QIPP	Quality, Innovation, Productivity and Prevention
HCP	Healthcare Professional	QMC	Queens Medical Centre
HVSU	High Volume Service User	QALY	Quality Adjusted Life Year
IAPT	Improving Access to Psychological Therapies	ROI	Return on Investment
IBA	Identification and Brief Advice	SC	Social Care
IBD	Inflammatory Bowel Disease	SCALES	Structured Conversations About Lifestyle in the Emergency Setting
IBS	Irritable Bowel Syndrome	SFH	Sherwood Forest Hospitals
ICP	Integrated Care Partnership	SM	Substance Misuse
ICS	Integrated Care System	SMD	Severe Multiple Disadvantage
IP	Inpatient	SMI	Severe Mental Illness
IT	Information Technology	TTG	Tissue Transglutaminase Antibodies
LA	Local Authorities	UCC	Urgent Care Centres
LoS	Length of Stay	UK	United Kingdom

12. Data Sources

Data Sources	British Liver Trust East Midlands Academic Health Science Network Local Data from CCGs, eHealthScope National Institute for Health and Care Excellence National Confidential Enquiry into Patient Outcome and Death NHS England NHS Digital NHS Long Term Plan Nottingham & Nottinghamshire ICS Population Health Management Office of National Statistics Public Health England The Lancet Commission