NHS North East and North Cumbria

REPORT CLASSIFICATION	✓	CATEGORY OF PAPER	✓
Official	✓	Proposes specific action	
Official: Sensitive Commercial		Provides assurance	
Official: Sensitive Personal		For information only	✓

BOARD

31 January 2023

Report Title:	The use and development of information systems for the work of the Integrated Care Board (ICB).

Purpose of report

The purpose of this paper is to contribute to a board level exploration of the capability of existing sources information to underpin the delivery of these responsibilities and to generate a common understanding across the Integrated Care System (ICS) of where progress is being made, where improved performance is needed, and whether required goals and standards are being met.

Key points

- The paper presents a series of questions that will be used to determine the current data provision capabilities

- The paper compliments a supporting presentation that sets out the ICB's data, analytics and insights ambitions, resulting in an assessment of the questions and the ability to respond with current and/or future data service provisions.

Risks and issues

- There is an increasing dependency on data and analytics services to support the ICB's strategic and operational needs, as well as broader insight to inform and transform population health and associated care services.

- The ICB's data, analytics and insight strategic approach, requires all parts of the integrated care system to provide, high quality timely and accurate data.

- Subject matter/domain experts will need to work in partnership with data and analytics experts to contextualize data and develop appropriate actionable insights.

Assurances
• The ICB's data and analytics service development has the full commitment and support of the ICB board and Executive team and is recognised as a critical service.

Recommendation/action required
To fulfil the strategic ambitions outlined in this paper, it is essential that source data and the information systems that it fuels are: a) relevant, meaningful, accurate and up-to-date; b) capable of enabling valid judgements based on comparisons of service performance over time and between similar services delivered in different localities; c) accepted and valued by clinicians and other staff; d) used and relied on by system and organisational leaders and managers; e) trusted by patients, service users and the public.

Acronyms and abbreviations explained
All acronyms/abbreviations used have been explained within the body of the report.

Sponsor/approving director	
Report author	Professor Sir Liam Donaldson

Link to ICB corporate aims (please tick all that apply)	
CA1: Improve outcomes in population health and healthcare	✓
CA2: tackle inequalities in outcomes, experience and access	✓
CA3: Enhance productivity and value for money	✓
CA4: Help the NHS support broader social and economic development	✓

Relevant legal/statutory issues						
N/A						
Any potential/actual conflicts of interest associated with the paper? (please tick)	**Yes**		**No**	✓	**N/A**	
If yes, please specify						
Equality analysis completed (please tick)	**Yes**		**No**		**N/A**	✓
If there is an expected impact on patient outcomes and/or experience, has a	**Yes**		**No**		**N/A**	✓

quality impact assessment been undertaken? (please tick)						

Key implications	
Are additional resources required?	No
Has there been/does there need to be appropriate clinical involvement?	N/A
Has there been/does there need to be any patient and public involvement?	N/A
Has there been/does there need to be partner and/or other stakeholder engagement?	No

NHS
North East and North Cumbria

CHAIRMAN'S CHALLENGE: WHAT IS THE CAPABILITY OF CURRENT INFORMATION SYSTEMS TO ANSWER KEY PERFORMANCE QUESTIONS ABOUT THE INTEGRATED CARE SYSTEM?

Purpose

The members of the Integrated Care Board (ICB) for the North-East and North Cumbria and the ICB's executive team have key responsibilities, including: to meet the health needs of a wide range of diverse communities, to assure and improve the quality and safety of services, to raise levels of population health and well-being, to reduce the burden of preventable disease and premature death, whilst achieving greater equity in all these service domains.

The purpose of this paper is to contribute to a Board level exploration of the capability of existing sources information to underpin the delivery of these responsibilities and to generate a common understanding across the Integrated Care System (ICS) of where progress is being made, where improved performance is needed, and whether required goals and standards are being met.

Illustrative questions

The 10 challenge questions are intended to explore strength and weaknesses of existing data and information systems. At this point in its development, the ICB has less experience of local authority information systems and those used by wider partners, and this will be the subject of future discussion.

The questions are not intended to systematically and comprehensively cover the ICB's work. Nor is the list of data 'requests' intended to be exhaustive, simply to enable a free-ranging discussion amongst board members.

1. ***Are people with diabetes receiving a standard of care that gives the lowest possible level of avoidable complications of their disease?***

Rationale: Diabetes is a common non-communicable disease that affects large numbers of people. If it is well-managed, known adverse outcomes can be eliminated or their onset delayed. These include premature death or disability (e.g. from heart disease or stroke), blindness, skin ulceration (sometimes leading to limb amputation), kidney disease, nerve damage, obesity (with its attendant risks).

Availability of information: What information is routinely available to describe where people with diabetes are living within the ICS area? How well is diabetes being controlled amongst residents in different ICS Places? What level of known complications is occurring amongst residents in different ICS Places?

2.   How early is bowel cancer being detected and treated?

Rationale: Colo-rectal cancer is the fourth commonest cancer in the UK and the second biggest killer. Of those diagnosed in the earliest cancer stage, 90% survive for five years or more whilst for those cancers recognised at the latest stage, survival is 10%.

Availability of information: What is the incidence of colo-rectal cancer amongst residents in each ICS place? What is its incidence in the under-50 age groups? What is the distribution of stages of cancer at diagnosis amongst residents in each ICS Place? What are the rates of five- and 10-year survival for different stages of cancer at diagnosis amongst residents of different ICS Places? What are the rates of five- and 10-year survival for different stages of cancer at diagnosis according to which hospital the patients were treated at?

3.   What is the health and health care experience of the most deprived areas?

Rationale: The population served by the ICS contains some of the highest levels of economic and social deprivation in the country. These conditions are powerful determinants of poor health and well-being and have proved to be intractable over time.

Availability of information: Taking the smallest population areas as the unit of analysis, which are the 50 such areas in the ICS that score worst on deprivation indices? Using five markers (expectation of life at birth, expectation of life at 65 years, death from cardiovascular disease, infant mortality, suicide rate) compare the 50 small areas collectively with all other areas combined.

4.   How good is population uptake and coverage for preventive health interventions?

Rationale: A number of preventive health services organised NHS-wide reduce disease incidence and mortality, but their effectiveness depends on achieving high uptake.

Availability of information: For the following four preventive services - bowel cancer screening, breast cancer screening, childhood immunisation, proportion of over-65s with high blood pressure being successfully controlled - what is the percentage coverage of the eligible population in each of the ICS areas? For the same four measures in small areas, across the whole ICS, what are the five best and five worst performers?

5.   What is known about levels of incapacity and frailty of older people living at home?

Rationale: Three-quarters of people aged 75 years and older have more than one long-term condition. People of this age and older living at home are at greatly increased risk of attending an accident and emergency department, being acutely admitted to hospital or needing to be in a residential care facility. These risks are dependent on the nature of their illness, but also the extent of their physical and mental capacity and the presence of frailty.

Availability of information: What are the numbers of men and women aged over 65 years with moderate and severe levels of frailty living within the ICS area? What age

groups are they in? How many live alone? What are the same data for each of the ICS Places?

6. What is the level and causal nature of avoidable harm generated by care providers and in care settings?

Rationale: Studies of patient safety and review of data arising from incident reporting systems carried out nationally and internationally have shown that the level of avoidable harm associated with care is higher than it is generally perceived to be. Action to reduce it and sustain improvement have been of limited success.

Availability of information: What numbers of serious patient safety incidents have occurred in the past five years (2018-2022) in each of the providers of care within the ICB's jurisdiction? What types of incidents were they? Acknowledging that there will be overlap between serious incident and Never Events, what numbers and types of Never Events have occurred in each of the providers of care within the last five years?

7. What are the risks to patients of acquiring an infection during their care?

Rationale: In hospitals providing acute care in high-income countries like the United Kingdom, the World Health Organisation has estimated that, out of every 100 patients, seven will acquire at least one health care-associated infection during their hospital stay. The COVID-19 pandemic has clearly shown how central infection prevention and control is to maintain vital services and ensuring patient and staff safety. Health care-associated infections and the spread of antimicrobial resistance in health care settings are a consequence of poorly organised and delivered infection prevention and control programmes. Key failures include low compliance with hand hygiene and aseptic practices, contaminated medical equipment and supplies, inadequate environmental cleaning, insufficient training in infection prevention and control policies and practices, very high bed occupancy, understaffing and suboptimal infrastructure for patient isolation, weak leadership and adverse cultures.

Availability of information: For each provider of acute care show the number of healthcare-associated infection in the following categories:
i) surgical site infections ii) catheter associated urinary tract infections iii) central line associated blood stream infections iv) Methicillin-resistant staphylococcus aureus (MRSA) bacteraemia v) Clostridium difficile for each year 2017-2022. For each provider of acute care show the number of cases of COVID-19 acquired in hospital by patients and staff for the years 2020-2022. For each provider of acute care show the rate of hand hygiene compliance in clinical areas in the most recent available time period.

8. What do patients think of the care that they receive and what information about services is available to them?

Rationale: Looked at from first principles the kind of questions a user or potential user of a service might ask about their care could include: How quickly will I be first seen; how quickly will I get a diagnosis and how quickly will I receive definitive treatment? If my condition is potentially life-threatening, will the local service give me the best odds of survival, or could I do better elsewhere? Will the staff treating me be competent and up to date in their practice? Does the service have a low level of complications for treatment like mine compared to other services? Does the service have good quality assurance and quality improvement systems in place? What is the safety record of the service

concerned? How good are the amenities and environment of the hospital or health centre where I will be treated? Is the medical equipment for diagnosing and treating patients like me, state of the art? Have patients treated by this service in the recent past rated it highly on dignity, respect, information-giving? How does the service compare to others around the country and elsewhere in the world? Many of these practical and common-sense questions that patients and families might have are not readily available to them.

Availability of information: What information is produced by each provider of care within the ICS about patients' views and experience of care? What range of information about quality of services (particularly comparative and benchmarking data) is available for patients and families? How extensively are Patient Reported Outcome Measures (PROMS) used by providers of care and what are the main findings of analysis of these data?

9. *Children and young people's mental health*

Rationale: In 2022, in England, 18% of children aged 7 to 16 years and 22% of young people aged 17 to 24 years had a probable mental disorder. In children aged 7 to 16 years, rates rose from 1 in 9 (12.1%) in 2017 to 1 in 6 (16.7%) in 2020. Rates of probable mental disorder then remained stable between 2020, 2021 and 2022. In young people aged 17 to 19 years, rates of a probable mental disorder rose from 1 in 10 (10.1%) in 2017 to 1 in 6 (17.7%) in 2020. Rates were stable between 2020 and 2021, but then increased from 1 in 6 (17.4%) in 2021 to 1 in 4 (25.7%) in 2022. The numbers of suicides amongst the 15–19-year-olds in England rose by 35% between 2020 and 2021 and is the highest for 30 years.

Availability of information: How many referrals to children and adolescent mental health services were made from each of the ICS's Places each year from 2018 to 2022? Which are the small areas with the highest number of such referrals? How many suicides were there amongst young people aged 15 to 19 years for each of the years 2018 to 2022 and where did they live?

10. *What progress is being made in controlling tobacco-related disease?*

Rationale: Smoking remains the leading cause of preventable death in the ICS region. Although smoking rates are still higher than the national average, the region has achieved the largest reduction in smoking prevalence in the country (15.3% in 2019 vs 29% in 2005). Tobacco is a major causal contributor to health inequalities.

Availability of information: What is the prevalence of smoking in each of the ICS Places? Which are the small areas that collectively contain 80% of the ICS's current smokers? Which are the ten small areas with the highest smoking prevalence? How many people attending smoking cessation services in each of the ICS Places in the years 2018-2022? What were the quit rates achieved by each of these services in the same time periods?

Conclusions

Information on the performance of services is needed for at least four main purposes: accountability, quality improvement, choice and management.

To fulfil these purposes it is essential that source data and the information systems that it fuels are: a) relevant, meaningful, accurate and up-to-date; b) capable of enabling valid judgements based on comparisons of service performance over time and between similar services delivered in different localities; c) accepted and valued by clinicians and other staff; d) used and relied on by system and organisational leaders and managers; e) trusted by patients, service users and the public.

Professor Sir Liam Donaldson
ICB Chair
January 2023