

Long list of ideas for MDSN projects 2022/23

This document lists the ideas that were considered for the 2022/23 programme of analytical projects for the [Midlands Decision Support Network](#). Projects F, I, and R were selected by the MDSN Strategy Group and will be taken forward during the remainder of 2022/23.

A: Using eNEWS scores to assess hospital admission and discharge thresholds

Over the last 20 years, demand for healthcare has increased substantially, whilst the number of hospital beds has reduced. This dynamic has placed greater focus on decisions to admit and discharge patients from hospital beds. Despite this, there is little empirical data on whether these thresholds vary between and within hospitals. The development of NEWS scores may provide a fresh opportunity to meaningfully draw these comparisons. **

B: Understanding variation and changes in operative thresholds for elective hip and knee replacements

An elective hip or knee replacement can confer significant improvements in joint function and quality of life. Pre-operative joint function has been recorded using a standard scale for all NHS elective hip and knee replacement since 2009. How do operative thresholds vary across organisations and patient subgroups, how might that influence surgical prioritisation decisions and how might this information be used to commission services? If pre-operative thresholds increase in the next few years as waiting lists grow, how will this alter the cost-effectiveness of hip replacements and the relative value of alternative treatments?

C: Exploring opportunities to improve allocative efficiency along the CKD pathway

The commissioning and delivery of chronic kidney disease services is distributed across a number of organisations. Dialysis and transplants, treatments that occur at the end of the pathway, when other options have been exhausted are extremely expensive and resource constrained. There is a concern that current commissioning arrangements and investment decisions are taken by organisations seeking to minimise costs within their part of the pathway. How might resources be reallocated across the pathway to optimise health outcomes?

D: Variation in long-COVID identification and opportunities for case-finding

A recent study has found that more than 2 million people in England could be experiencing the symptoms of long-COVID. Identification of the condition is difficult and unlikely to be uniform or complete. How do rates of long-COVID identification vary across ICBs, how might case-finding be improved and what are the likely service consequences and health benefits of improved case-finding?

E: The effectiveness, costs and unintended consequences of NHS strategies to minimise delayed hospital discharges

Since January 2022, approximately 13% (12,000) NHS beds are occupied by patients who are sufficiently well to be discharged. The causes of delayed discharges take many forms, but a substantial proportion relate to the lack of availability of social care or other forms of NHS care. NHS organisations adopt various strategies to mitigate these effects. How effective are these strategies, how much do they cost and what are the unintended consequences?

F: The supply of community healthcare services and their impact on unplanned hospital care for older people

Community healthcare services such as district nursing and occupational therapy are seen as an essential part of the health and care system, supporting patients to manage their health conditions at home and maintain their independence. However, comparatively little is known about the level and distribution of these services. Do some ICBs commission higher levels of community services than others? Are higher rates of community health services associated with lower levels of unplanned hospital admissions, in particular amongst frail older patients and those approaching the end of their lives?

G: Models of care and levels of investment in services for people with eating disorders

The prevalence of eating disorders had been rising steadily before the pandemic, and referral rates spiked as lockdown measures were relaxed. Waiting times for these services are now substantial. What services are in place, and how do levels and models of service provision vary across the ICBs in the Midlands? What services might be needed, and at what levels to respond to and moderate demand?

H: What factors are associated with uptake of digitally-enabled primary care services?

Digital technologies are likely to play an important role in ensuring the future sustainability of primary care services. But uptake of digitally-enabled services varies considerably between ICBs and across population subgroups. There are concerns that these differences might exacerbate existing inequalities. What infrastructure, capability and availability factors are most strongly associated with levels of uptake and what might this tell us about how to ensure good access for all?

I: Relative efficiency of primary care

Patients commonly report concerns relating to access and availability of primary care services. GPs and their teams acknowledge the difficulties they experience keeping pace with demand. Resource increases would certainly alleviate pressures. Whilst the targeting of these resources should be informed by levels of unmet need and demand, it should also take account of the relative productivity of practices. A recent Strategy Unit analysis has demonstrated the feasibility of assessing relative productivity of primary care at CCG level, highlighting those CCGs that deliver the highest level of patient-facing activity given their resources. We would be keen to extend this approach to estimate productivity at GP practice level. **

J: Exploring equality, diversity and inclusion within the NHS Workforce

This project will compare the characteristics (sex, ethnicity, socio-economic group, etc) of NHS staff, to those of the population it serves. How do levels of representativeness vary between ICBs and how has it changed over time? To what extent is workforce representativeness associated with staff satisfaction, absence, turnover, and measures of organisational performance? What strategies might the NHS adopt to improve the representativeness of its workforce.

K: Examining levels and variation in the uptake of Hormone Replacement Therapy (HRT) and potential benefits of increased uptake

What are the variations in uptake of HRT? What would be the direct costs of meeting NICE guidelines for HRT prescribing, the savings that might result through reduced healthcare use and the wider societal benefits that might accrue?

L: Differences in hospital treatment pathways for people from minority ethnic groups

A recent analysis found that when admitted to hospital in an emergency, patients from minority ethnic groups were more likely to be discharged without a formal diagnosis. What other differences in care pathways and processes can we observe using routine datasets, and how might this help us to improve health outcomes for these patients?

M: The impact of the transition from child to adult health and care services

Staffing and service models for children with long-term conditions inevitably differ from those offered to adults. Where these differences are substantial, the transition from child to adult services can cause disruption and distress. In which services are these transitions most common, what differences in service models exist, what can we infer about the quality and impact of these transitions and what mitigations have been developed? How can this information be used to improve child-adult service transitions?

N: Identifying instances where reduced access to care during the COVID-19 pandemic had limited impact on health outcomes

During the COVID-19 pandemic, many forms of care were temporarily halted or scaled back. The consequences of reduced access to care will have varied by severity and timing (immediate or delayed), and longevity. But it is feasible that in some cases, reduced access to care had no negative effect. If we can identify these situations, then this might guide future service planning and resource allocation decisions.

O: Healthcare failure demand and its impact of people from minority ethnic groups

Many forms of urgent hospital care can be seen as a consequence of some failure or absence of an earlier intervention. What can we learn about the availability, quality or suitability of healthcare services for people from minority ethnic groups, based on their patterns of urgent hospital use?

P: Taking stock of social prescribing

Whilst the concept of social prescribing is not new, the approach became much more widely adopted after it was championed in the NHS Five Year Forward View in 2014. Evidence reviews are cautiously positive but call for further research. This project would update earlier evidence reviews, map social prescribing initiatives across the Midlands and set out options to robustly evaluate these initiatives.

Q: Estimating the prevalence of self-harm and exploring opportunities to intervene

A recent study found that the prevalence of non-suicidal self-harm (NSSH) had increased substantially in recent years. Rates were highest and growing most rapidly amongst young women. Given that NSSH increases the risk of later suicide, there are concerns that upward trends in NSSH will translate to similar but lagged trends in suicides. This project would estimate the prevalence of NSSH in each ICS in the Midlands, explore the causes and potential consequences, estimate the proportion that have made contact with medical or psychological support services and set out the options for further case-finding and intervention.

R: The aging population and its impact on healthcare demand

The Office of National Statistics project significant growth in the numbers of older people in the next 20 years. How will these changes impact on demand for various forms of healthcare and where are the greatest opportunities to mitigate these effects? What would be the cost consequences of meeting this demand and the health outcome effects of not. The analysis would use methods developed in the field of actuarial science and consider the changing numbers of older people, changes in the age / sex profile, age-specific morbidity rates, mortality rates and proximity to death.

S: How can clinical and care team job planning be used to improve service integration?

Increasing service integration has been a feature of national and local health policy for many years. ICBs are tasked with converting this policy into service changes that might be experienced as improvements in service quality by patients. How might job planning, the process of matching clinical and care staffing resources to patients' needs, be used to build service integration into service delivery.

T: The development and uptake of diabetes prevention programmes

NICE guidance sets out how GP practices and health systems should identify, manage and support those at risk of developing diabetes. To what extent have these recommendations been adopted, what is the uptake of diabetes prevention programme and how does this vary geographically and by patient characteristics? What can be done to improve the adoption of the clinical standards and uptake of services and what would be the benefits of doing so?

U: Breathing new life into programme budgeting - the need for a refresh and reorientation of approach?

With the demise of programme budgeting across the NHS and no apparent replacement in sight, there is a significant deficit in high quality financial information for ICSs across the Midlands to use in its planning and delivery activity. What are the benefits of bringing the programme back to life and what type of framework design would work the best to meet the needs of ICSs in the short, medium and long term?

V: Maximising clinician's capacity to carry out clinical work

Clinical post vacancy rates and the substantial lag between training and recruitment mean that clinical staffing is likely to be the key constraint on increasing supply to meet demand in the next few years. With this context, it is critical that health systems maximise clinicians' capacity to carry out clinical work. What tasks currently compete for clinician's time and how might these be reallocated? What trends and innovations (e.g., self-service HR/finance/IT etc) might be at odds with this imperative?

W: Exploring the implementation and impact of the PCN Additional Roles Reimbursement Scheme

The Additional Roles Reimbursement Scheme allocates considerable additional resource to support PCNs to increase general practice capacity by recruiting to five named roles. Funding commenced in 2019/20 and is expected to grow to £980m per annum by 2023/24. To what extent has this funding led to increased staffing levels, and what has been the impact on service provision and accessibility?

X: Home environments and patient circumstances and their impact on the feasibility and equity of Virtual Ward service provision

Virtual wards allow patients to get the care they need at home safely and conveniently without the need for a hospital admission. But how does a patient's home environment impact the feasibility and safety of virtual ward services? To what extent might a patient's circumstances preclude virtual ward provision? Which patients might be affected and how might these issues be mitigated?

Y: Exploring holistic approaches to service benchmarking

Traditionally, the NHS's approach to benchmarking service efficiency and quality, entails comparing services over a number of distinct metrics. Moreover, the assessments rarely take account of service equity. What methods exist to provide a more holistic assessment of service efficiency or quality. How might these be embedded in routine reporting arrangements?

Z: Developing reliable proxies for service need to underpin equity assessments?

Any assessment of service equity requires an understanding of the distribution of the burden of need. These need distributions are particular to each service, and this hampers efforts to make comprehensive assessments of equity. How might need distributions be proxied such that assessments of equity can be generalised?

AA: Assessing the feasibility, and utility of Health and well-being coaches in supporting patients waiting for mental health services?

Waiting times for IAPT and other mental health services are increasing. Health and well-being coaches are a new role designed to ensure that patients can be active participants in their care. How might Health and well-being coaches be deployed to support patients who are waiting for mental health services? What roles might they fulfil, what benefits might be delivered and what capacity would be required?

AB: Preparing for Winter 2022/23

Winter is often associated with a rise in the incidence of medical conditions, increasing pressure on a wide range of health and care services. This year, in efforts to manage elective waiting lists, health system may be more likely to ring-fence hospital resources, reducing the system's flexibility to respond to peaks in demand for medical admissions. The potential for further SARS-CoV2 outbreaks adds complexity and risk. of additional resources to manage winter pressures often arrive with limited notice, and this requires health systems to plan rapidly. What options are available to health systems, and which of these are most compatible with changes in context (e.g. latent demand, patient behaviours, infection control) created by the COVID-19 pandemic? Does the development of ICBs present fresh opportunities to address these challenges taking full account of the dependencies between services?

AC: Bringing the wider determinants of health to bear on healthcare analysis

A diverse range of factors are known to impact on an individual's health status and health outcomes: employment security, literacy, internet access, crime etc. These 'wider determinants' are widely acknowledged and discussed but are rarely recorded in routine administrative and clinical systems. This limits the extent to which these concepts can be used to manage patient care (case finding, prevention, early intervention), evaluate interventions, or estimate future demand. What innovations might enable these wider determinants of health to be imputed for routine analysis and research? How reliable might these methods be?

AD: Exploring the impact of increased hospital waiting times on primary care

Over the next few years, GPs will need to manage an increasing number of patients who have been referred to secondary care but are still waiting for treatment. What might be the scale of this increase for a typical GP practice, what support will these patients need and what surveillance systems might GPs need to identify patients whose needs change materially whilst waiting? How might GP practices accommodate these additional responsibilities alongside existing and emerging demands.

AE: Comparing pathways for high volume cancers

Cancer services entail a wide range of clinical and care interactions, spanning prevention, screening, referral, diagnostics, treatment and end-of-life care. Taken together, and viewed consecutively from a patient perspective, these interactions can be thought of as a pathway. How do these pathways differ by tumour site, geographically and by patient characteristics? What might this information tell us about improving pathway efficiency, consistency, and fairness.

AF: Assessing the potential of healthcare robots to address the workforce gap

Training, recruiting, supporting, and retaining a skilled workforce has been a consistent challenge for health systems in recent decades. Beyond the rhetoric, what is the potential for healthcare robotics to address this gap. How mature and well-tested are current market offerings? Which current healthcare roles might feasibly be carried out by robots in the next 10-20 years, and what are the risks of adopting these rapidly developing technologies.

** Note that these projects will require ICBs to supply pseudonymised or aggregated data to the Strategy Unit.

Categorisation of Long-list MDSN Projects for 2022/23

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| B: Understanding variation and changes in operative thresholds for elective hip and knee replacements |
| C: Exploring opportunities to improve allocative efficiency along the CKD pathway |

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| E: The effectiveness, costs and unintended consequences of NHS strategies to minimise delayed hospital discharges |
| F: The supply of community healthcare services and their impact on unplanned hospital care for older people |
| G: Models of care and levels of investment in services for people with eating disorders |

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