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All Together Better Sunderland

Case Study

All Together Better Sunderland:

Pioneering in Population Health Management and Outcome Measurement

Full Report

Published June 2022

Introduction

Purpose of the case study

Four years into the All Together Better (ATB) Sunderland partnership, and ahead of moving to an ICS structure, this case study provides an opportunity to evaluate and reflect on the progress of the 'outcomes' programme, and to share Sunderland's Population Health Management journey to date.

Background / vision of ATB Sunderland

All Together Better (ATB) is a formal alliance that brings together all out of hospital providers and commissioning organisations in Sunderland to deliver the most personalised, proactive and joined-up care possible for people in the city.

When established in 2019, it was agreed to adopt an 'outcomes based' approach to measure success as an Out of Hospital System. At the start of the journey, population health management was not a well recognised term, but was a top priority within ATB along with health inequalities.

ATB aims to improve peoples' experiences of using health and care services and their health outcomes, supporting people to live longer with a better quality of life.

Why measure outcomes?

Historically health and care systems have put weight on improving 'performance', and this is reflected in an emphasis on collecting process measures (e.g. number of tests performed) and recording outputs of care (e.g. test results), over outcomes. An 'outcome' can be described as a positive change for the better in a person's health and wellbeing. Outcomes are the "things that really matter to people", the end result of all care interventions and experiences in combination. This is distinct from processes and outputs of care. Outcomes are a result of care across an entire health and care system, and measure the whole system's success in keeping the population well, improving the things that really matter to them, and reducing illness.

Over the past four years in ATB, outcomes have become more prominent and increasingly important. Back in 2018, robust outcome measurement was identified as a key requirement for better integrated system working. It was recognised that outcomes provide the insight that can lead to improving the health and wellbeing of the population and reducing inequalities between different groups, for example closing the gap in life expectancy and healthy life expectancy compared to the national average.

Over recent years there has been a growing number of national drivers to improve outcomes, tackle inequalities and develop approaches to Population Health Management. These include the NHS Long Term Plan, ICS White Paper and 2022-23 priorities & operational planning guidance.

ATB made the decision to partner up with Outcomes Based Healthcare (OBH) to develop capabilities and draw on expertise in outcome measurement. At the time, this was the chosen route due to a lack of local capacity and capability.

Outcomes Based Healthcare

Outcomes Based Healthcare (OBH) are a mission-driven, social purpose, health data analytics organisation, and alumni of the NHS Innovation Accelerator. OBH are using technology to support commissioners and providers in making a reality of value-based healthcare strategies, outcome measurement and outcomes-based commissioning. OBH use integrated health and care data, spanning multiple care settings, to derive accurate and meaningful insights about population segments, and outcomes, to support service transformation. OBH were awarded a prestigious Queen's Award for Enterprise - Innovation in 2021.

A team of clinicians, data analysts, developers, economists, and public health specialists, who all share a deep commitment to supporting health and care organisations transform the way success in health and care is measured and funded, to those things that matter most to people.

OBH support systems, commissioners and providers with specialist advice and advanced health analytics tools to support Population Health Management. This is a priority for all Integrated Care Systems both within the NHS Long Term Plan, and within the Operational Planning Guidance for 2022/23.

For more information please visit:
www.outcomesbasedhealthcare.com

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THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2021

The ATB Sunderland Outcomes Programme

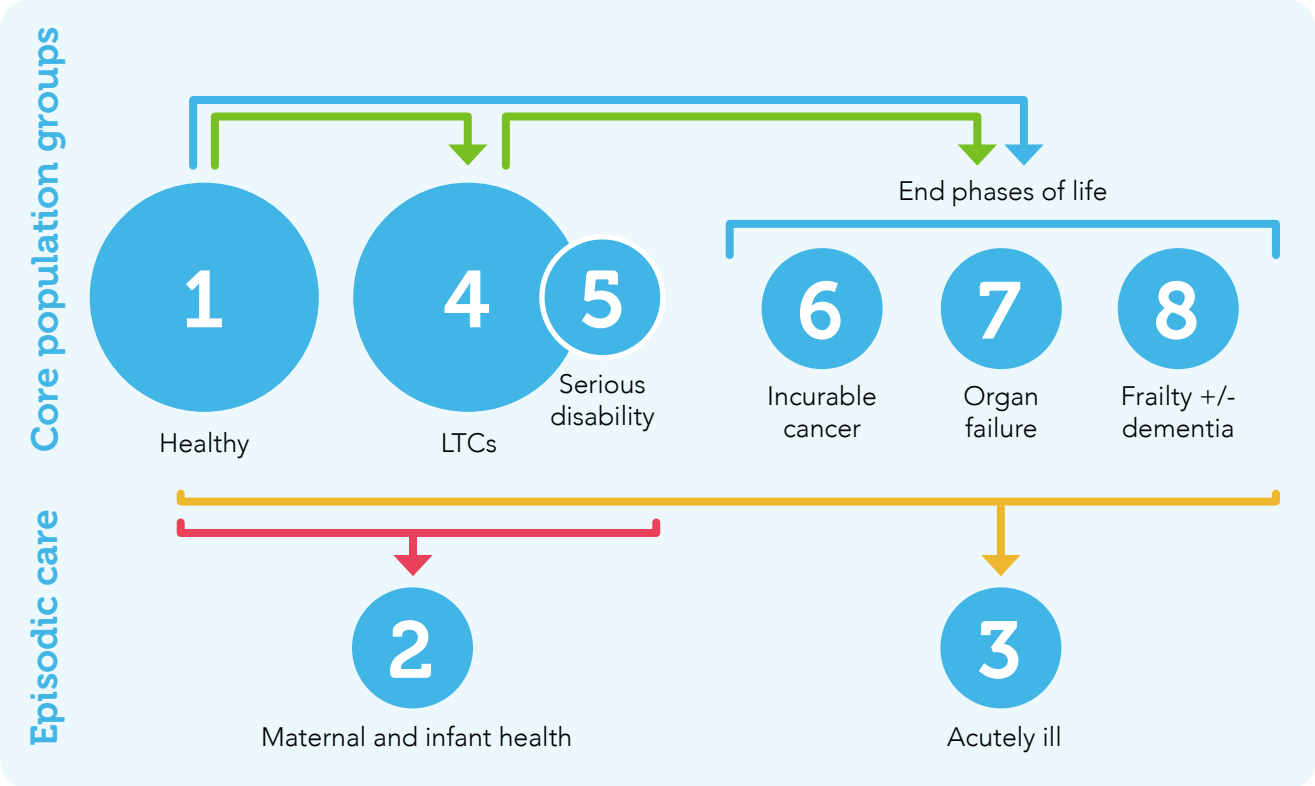
Segmentation for outcomes

The first step in outcomes development was understanding the 'who', i.e. who are the local population and what are their common needs, priorities and circumstances. It is important to first understand the 'who', before defining the 'what' - i.e. outcomes and what 'good' looks like.

Population segmentation is a core component of Population Health Management. Segmentation is a way of grouping cohorts of people with broadly similar or homogeneous sets of health needs, priorities, and circumstances.

ATB, working with OBH, developed a unique linked longitudinal primary and secondary care dataset, and applied the internationally recognised 'Bridges to Health' segmentation model. The Bridges to Health model is a life course model that groups people within the Sunderland population into six core segments, from the 'Healthy/Generally Well', to populations at the 'End Phases of Life'.

Sunderland's unique segmentation dataset, which was locally configured to match Sunderland's scope of services, groups the local population by the segment(s) and subsegment(s) (and/or conditions) which they belong to. The segmentation dataset provides information on the population at a daily level of granularity. Drawing on health and care data from birth onwards, it initially covered a 5 year period, and has now been extended to 9 years. It includes the entire GP registered population (data from 38 practices in Sunderland CCG, covering around 284,000 people), and takes into account changing population dynamics over time (births, deaths and migration). This dataset now underpins one of the richest longitudinal records of whole population health outcomes data of its kind.



OBH, adapted from the Bridges to Health model – Lynn J, Straube BM, Bell KM, Jencks SF, Kambic, RT. (2007). Using population segmentation to provide better health for all: the 'bridges to health' model. The Milbank Quarterly: 85(2): 185-208.

Outcome measurement

The next stage in outcomes development was agreeing which outcomes were meaningful to the Sunderland population. OBH were instrumental in providing expertise and offered an independent process to help ATB at the start of the outcomes journey.

Working in partnership, ATB and OBH built a comprehensive Outcomes Framework, focused on key strategic areas closely aligned to the CCG's transformation programme and scope of services.

To do this, ATB accessed OBH's Outcomes Library, which includes a range of segment and cohort-specific measures. Such as condition-specific measures of incidence, avoidable complications and exacerbations, alongside, more person-centred measures such as reducing daily disruption by care, and novel and unique measures of population-level healthy life span.

ATB held co-production workshops to prioritise the top 30 local outcomes most aligned to their population health improvement programmes. Clinicians, public health leads, and the programme team selected and configured outcomes to measure Sunderland's priorities, population needs, and areas of clinical focus. ATB collectively agreed these measures, which ensured that the outcomes selected were representative of the system and were meaningful to the Sunderland population.

HEALTHSPAN® Measures

ATB agreed to pilot a suite of outcome measures that can show whether people are in good health, and for what portion of their lives. Population-level healthy life span, or 'HEALTHSPAN', is an objective whole population measure of the amount of time individuals spend in good health, usually described as a proportion of their overall lifespan. HEALTHSPAN measures when people first develop a significant health condition, and the average age this occurs across the whole population, on a rolling 12 month basis. Measuring HEALTHSPAN is a unique and novel way to use existing structured health and care data, to objectively measure the success of health and care systems in helping keep people healthy.

Of particular interest to ATB was the 'HEALTHSPAN Gap': a measure which looks at the difference in HEALTHSPAN between people living in the most and least deprived areas locally. For more information on HEALTHSPAN, see analysis in Spotlight 3.

In total ATB agreed 28 outcome measures and 4 HEALTHSPAN measures to use in their system.

28 Outcome measures agreed

4 HEALTHSPAN® measures agreed

ATB Sunderland Outcomes Framework: Clinical and Social Outcome Measures (CSOMs)

Healthy / Well

- **reduce** smoking
- **reduce** alcohol consumption
- **reduce** 30 day readmissions
- **increase** crude HEALTHSPAN®
- **increase** risk-adjusted HEALTHSPAN
- **increase** HEALTHSPAN:LIFESPAN ratio
- **increase** healthy population size
- **reduce** HEALTHSPAN 'gap'

Disability

- **reduce** premature mortality (learning disability)
- **reduce** potential years of life lost (learning disability)
- **reduce** emergency hospital admissions (learning disability)

End of Life

- **increase** people dying in preferred place of death
- **reduce** people dying in hospital for residents of care homes
- **reduce** emergency hospital care during last weeks of life

Long Term Conditions

- **reduce** days disrupted by care (LTCs)
- **reduce** days disrupted by care (mental health conditions)
- **reduce** potential years of life lost in people with SMI
- **increase** average age at death
- **increase** early diagnosis of cancer
- **reduce** emergency hospital admissions
- **reduce** emergency admissions for ACS conditions
- **reduce** stroke in people with diabetes/cardiovascular conditions
- **reduce** diabetes complications
- **reduce** acute exacerbations of asthma
- **reduce** self-harm
- **reduce** acute exacerbations of COPD

Organ Failure

- **reduce** organ failure exacerbations requiring emergency admission
- **reduce** acute infections that should not normally require admission in people with neurological disease

Frailty and/or Dementia

- **reduce** emergency admissions
- **increase** time spent at home
- **reduce** pressure ulcers
- **reduce** serious falls
- **reduce** emergency readmissions and returns to A&E

All Together Better Sunderland

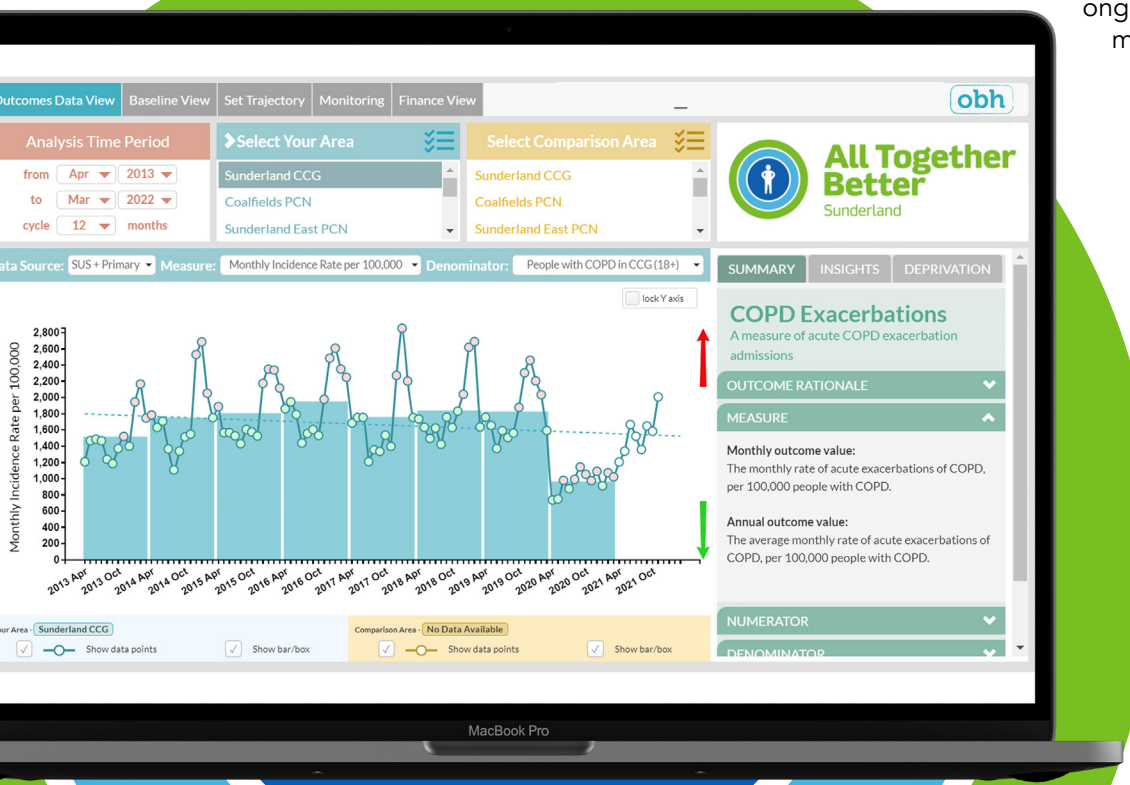
Outcomes Platform

The outcomes selected were converted by OBH into the Outcomes Platform. This online visualisation tool is accessed through secure login, containing anonymised aggregated outcomes data. This provides timely cohort and population level outcome measurement at CCG and PCN level, to an unlimited number of users in the local health and care system.

The Outcomes Platform provides clinicians and those working in the ATB alliance to continuously view health outcomes across populations. The Outcomes Platform is updated on a quarterly basis. This means that changes and interventions can be implemented in a timely responsive manner when deterioration or unwanted trends occur. The time series data also helps to identify opportunities to make further improvements.

ATB uses the Outcomes Platform to analyse the success of system wide transformation programmes through a cohort-specific lens in near real time, allowing for baselining, tracking, and monitoring of outcomes following interventions and service redesign across care settings. With the additional local primary care data, this segmentation approach mirrors work on population segmentation nationally, allowing for meaningful local/national comparisons, and represents a key building block of Population Health Management.

ATB is particularly focused on measuring the impact of deprivation on outcomes, as well as being able to model out different outcomes-based shadow contracting arrangements by varying outcomes weightings and trajectories of improvement. Key outcome measures within the Platform allow the user to view how strongly each outcome is associated with deprivation status of the population (see the two Outcomes Platform screenshots on this page and Appendix Spotlight 1, which shows how COPD exacerbations are highly concentrated in the most deprived populations). Through ongoing monitoring of outcome measures, the Outcomes Platform is a key enabler in helping Sunderland CCG to use data and analysis to drive clinical interventions and evaluate commissioning decisions.



Milestones

2018

- **Vanguard programme ended** - Sunderland exploring use of MCP contract
- **Agreed to have an outcomes based approach** - but needed a way of measuring outcomes
- **ATB Shadow Year** - Obtained ATB Executive buy-in and support to have outcomes for the partnership
- **Partnered with OBH** to support the development of outcomes for ATB

2019

- **ATB becomes a formal alliance**
- **Development of Outcomes Framework**
- **Appointment of Population Health leadership roles**

2020

- **Covid 19 and refocus of plans** towards responding to the pandemic
- **Priority of addressing health inequalities**
- **Outcomes supported this work** and allowed ATB to track impact on the population

2021

- **Using the Outcomes Platform** to inform transformation and focus on the 'so what'

2022

- **Next steps** - a focus on recovery post-pandemic and reducing health inequalities

Discussion & Findings

Progress to date

ATB have used the Outcomes Platform as part of their growing Population Health Management (PHM) programme. PHM is about understanding the health and care needs of the local population, using advanced analytics and data insights. This involves ATB using these insights to proactively plan services for different groups of people within the population who may have different needs, and improve their outcomes. ATB takes a whole system view and recognises the role of prevention, social determinants and other factors that drive poor outcomes for people within the population.

As of 2021, Population Health has been added as one of the core strategic aims for Integrated Care Systems in England, in order to deliver the benefits of improved physical and mental health outcomes, promote wellbeing and reduce health inequalities across an entire population.

How are outcomes insights used?

The Outcomes Framework is now the driver for all ATB projects, and measures of success are now determined by ability to deliver against the strategic outcomes. To embed this in practice, processes have been changed so that any new project or service change needs to align with the Outcomes Framework. This has also been embedded within the revised business case template, which now requires outcomes to be identified and outlined at the starting point as this should set the direction for the project.

Outcomes insights are shared widely with all stakeholders across the ATB alliance. Insights are used in programme meetings, workshops, and executive sessions.

Some examples below show how the Outcomes Platform is used in practice:

Regular ATB Executive Outcomes Sessions

- Strategic report prepared quarterly for the ATB executive which is used to inform decision making and priority setting.
- It generates system discussion and monitored actions which are data-led.
- Health inequalities reviewed using Index of Multiple Deprivation (IMD) Local Quintile report based on the last 9 years, with sessions discussing data on the gap between most and least deprived quintiles.

Outcomes linked to all ATB programmes

- Outcomes embedded in quality impact assessments and are used to inform decision making and priority setting / projects.
- Requirement in business cases to identify how projects will address health inequalities – the Platform acts as a deprivation information source.

To inform system decision making

- Allows teams to tailor and shape service design to the needs of the target population rather than using a blanket one-size-fits-all provision.
- Encourages a patient and person centred approach, rather than condition or disease focused.

Outcome trends analysis

- Changes over a period of time are examined and reviewed. These are produced into a quarterly summary update by ATB overall, each PCN, overall ATB and PCN compared to baseline, PCN compared to ATB overall.
- Year outturn graph, baseline, latest period, latest value, latest period variance from baseline, direction of travel, graph latest 12 data points, ATB latest value and value same period last year, focus (where three consecutive data points moving in the same direction).
- Reports generated by OBH, e.g. ATB population segmentation analysis report 2019/20, 2020/21 provides insight into population and changes from between years.

What ATB have done differently

ATB have used the Outcomes Platform, and applied a specific focus on the wider determinants of health and deprivation.

The ATB Executive Group uses the data and insights from the Outcomes Platform to facilitate discussion and understand what factors are driving poor outcomes in different population groups.

This information is used to co-design interventions with frontline teams and help to plan services which will meet the tailored needs of the population in Sunderland.

This unique way of working means Sunderland can use resources in a more joined-up and sustainable way to deliver quality and value.

Drivers

- **National priority** - PHM included in Operational Planning Guidance 22/23 and NHS Long Term Plan.
- **Clinical leadership**.
- ATB **Executive buy-in**.
- **Expertise** from OBH.

Challenges

- **Data** - understanding data quality & clinical coding delays which have an impact on timeliness of outcome measurement.
- **IG** - Data sharing and joining problems, availability and frequency, ability to drill down in more granular data.
- **Ability to benchmark** - limited to between PCNs with joining of primary and secondary care data.
- **Change in culture** - outcomes need to be embedded into everyday practice and not viewed as something 'additional'. This was helped by using outcomes to evidence impact in a manner which is meaningful and timely.
- **System pressures** and prioritisation in relation to the impact of COVID - staffing shortages and sickness, redeployment, waiting list backlogs, some elements of programme were delayed or put on hold.
- **Lack of PROMs**/ patient experience and feedback.

Enablers

- **Programme support** - dedicated Population Health and Outcomes development lead, working across programmes and a project manager to oversee the implementation of workshops delivered to ATB Business Group, ATB Executive Group and PCNs - to update on latest outcomes and performance information, to report outcomes by exception, consider how to use intelligence.
- **Embed outcomes** as part of existing quality assurance processes.
- **Taking the time to get consensus**, time consuming but essential for wider buy-in.
- **Population Health/ Analytics Network**, coordinated by NHSEI - a network of colleagues who are willing to share information, good practice and expertise.

Opportunities

- **Embed in transformation** to inform decision making and strategic improvement of outcomes.
- Further opportunity to **improve health inequalities**.
- Using **outcomes and segmentation insights routinely** to understand the population needs and further analysis of linked data.'
- Turning **timely available intelligence into meaningful insightful** actions that can lead to improvements or influence decision making.
- Development of a citywide **system analytics network**, collectively focusing on key outcome improvement.

Feedback from stakeholders

The Outcomes Platform provides a flexible and insightful way to identify health inequalities and priority areas for early intervention. Additionally, as new data can be added rapidly it can help to gain a view of the effectiveness of interventions. As Place-based approaches develop, there are opportunities to take the analysis to a more granular level and examine intervention specific cohorts. To improve healthy life expectancy and reduce unnecessary onset of long-term conditions we need to ensure that the insight that can come from the Outcomes Platform is used to help identify those at the greatest risk of poor outcomes. This will enable local stakeholders to develop targeted preventative interventions.

Adopting a Population Health Management approach at programme level is invaluable in understanding how Sunderland is performing against key outcomes, which contribute to the overarching strategic outcomes. The comprehensive outcomes dashboard at programme level, visualises progress, problem areas and gaps in service, which allows primary care to engage in meaningful conversations and put plans in place to improve services for the people of Sunderland.

Conclusions, Recommendations, & Learnings

Clinician engagement and leadership is key - System engagement and good communications are essential to get buy-in.

IG takes time and is challenging - One of the biggest challenges and time consuming part of the process was obtaining IG approval to link primary and secondary care data for this purpose.

Local outcomes - The importance of having bespoke outcomes to your local population. e.g. Sunderland looked at Potential Years of Life Lost (PYLL) in People with Serious Mental Illness or Premature mortality in people with Learning Disabilities at board level.

National drivers - There is now a clear national driver to accelerate Population Health Management - using this to learn from others and to put in place outcomes based approaches will be easier. Recent input from national leaders like the Kings Fund and the Marmot team has generated fresh ideas and created further system engagement.

It takes time, patience and resilience

- Building rapport and relationships with partners.
- Need to have the right people, right place, right time.
- Drawing on expertise and existing work is essential.
- It takes the whole system to engage to make it work.
- Seize the learning post-COVID.
- Learnings continue to evolve and develop new processes.

Embedding into everyday practice

- Planning guidance now requires performance monitoring to include health inequalities.
- Effective, system-wide action requires a common understanding of population health drivers, outcomes and effective interventions.
- Focusing on key priorities is challenging but essential if you want to shift outcomes.
- Outcomes should be defined at the start of every project to set the direction, 'the difference the project wants to make'.

Next steps

The next steps are continuing to build Population Health Management capabilities and capacity across the ICS. The Sunderland system is committed to planning together, deciding together and delivering together for better outcomes.

The focus will be on post-COVID recovery and reducing health inequalities. Sunderland are also exploring use of PROMs and greater patient involvement in the outcomes programme. The planning guidance and 22/23 priorities give a clear mandate towards improved data collection and reporting, which will drive a better understanding of local health inequalities in access to, and experience of outcomes.'

SPOTLIGHT 1

Health Inequalities

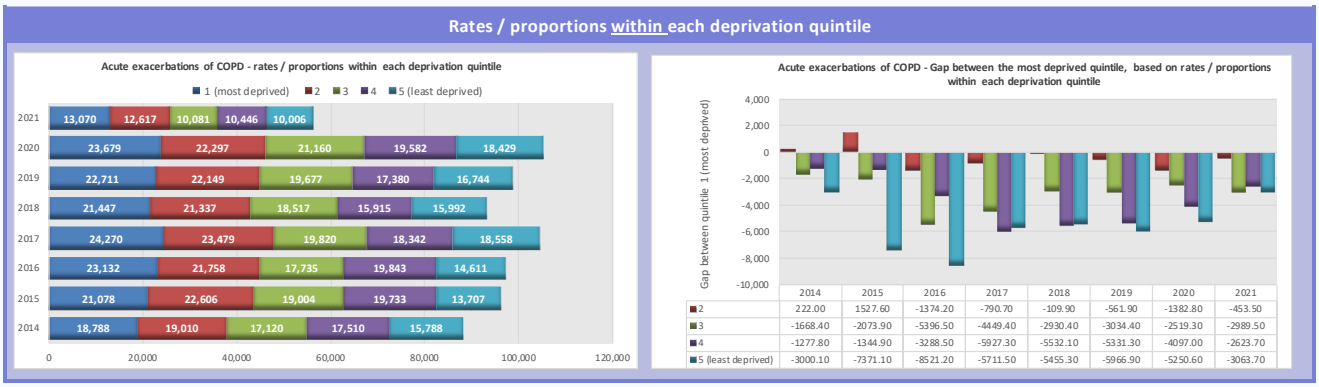
COVID has certainly helped focus the lens on health inequalities which is also heavily influenced by national guidance and drivers, with the key aim to reduce the gap between the most and least deprived.

ATB adopted an early health inequalities approach to health care around four years ago, which set out to identify health inequalities and tailor service offer to meet the needs of the patient, rather than a blanket one-size-fits-all approach.

The Outcomes Platform provides Sunderland's strategic outcomes by local deprivation quintiles, based on the Index of Multiple Deprivation (IMD). Local IMD quintiles are used rather than national quintiles, for a more even distribution between groups, and a more reliable view of inequalities split into five equal groups, removing the impact of smaller volumes of data.

The Acute Exacerbations of COPD example below, which is an outcome strongly correlated with deprivation and smoking, shows longitudinal analysis over the previous eight years. The rate of COPD exacerbations per 100,000 within each deprivation quintile (left graph) and 'gap' between the most deprived quintile and each of the other four quintiles (right graph).

Insightful intelligence is the first step to understanding health inequalities, but the important part is always the 'so what?', and what you do with it to reduce health inequalities. A recent example during COVID, was the introduction of a digital solution (Luscii), aimed at supporting patients to self-manage and contribute to the overall reduction in admissions to hospital and GP face to face appointments. To tackle health inequalities that may have impacted Luscii patients, steps were implemented to ensure, where required patients were supported with 'digital access', in the form of Apple iPads. These were chosen because of their ease of use and ease of remote management. Connectivity (mobile data access) was also provided as the residents being targeted for support in general were thought to lack WiFi. Training was available on how to use the technology for those who would find it challenging. This resulted in a focus on prevention and tackling health inequalities, as can be seen by continuation of a clear reduction in the COPD exacerbations 'gap' between most and least deprived quintiles above, over the last 6 years.



(2021 data – reduced exacerbations across all quintiles, impacted by COVID)

SPOTLIGHT 2

Benchmarking with the national data

Population and Person Insights dashboard

To support the focus on Population Health Management within the NHS Long Term Plan (LTP), the Chief Data Analytics Office (CDAO) (formerly Data, Analysis and Intelligence Service) within NHS England and NHS Improvement (NHSE and NHSI), Outcomes Based Healthcare and Arden & GEM CSU have developed a national data-driven approach to population segmentation, and a national framework for segmentation that supports delivery of this approach by local systems using local datasets.

A national person-centred segmentation dataset for population segmentation has been developed within NHSEI's data environment using data sources from the National Commissioning Data Repository (NCDR).

The national segmentation dataset is used to produce the Population and Person Insight dashboard, an interactive visualisation tool which supports data, insights and information used for decision support for Population Health Management programmes. For more information visit: www.apps.model.nhs.uk/analytics hub.

ATB uses the national dashboard to benchmark and better understand their data within the local/national context.

SPOTLIGHT 3

HEALTHSPAN® - COVID recovery

Background

Population-level HEALTHSPAN® is an objective whole population measure of the amount of time individuals spend in good health, usually described as a proportion of their overall lifespan. HEALTHSPAN measures when people first develop a significant health condition, and the average when this occurs across the whole population, on a rolling 12 month basis. Measuring HEALTHSPAN is a unique and novel way to use existing structured health and care data to objectively measure the success of health and care systems in helping keep people healthy.

The problem

During the pandemic, 'Crude HEALTHSPAN', the median age at which people first develop significant ill health deteriorated by over 2 years, compared with the 2019/20 baseline. This measure decreased from age 47.42 to age 45.05 over a two year period during the pandemic. This means on average people spent more than two years less in 'good' health, than before the pandemic.

Aims and measures

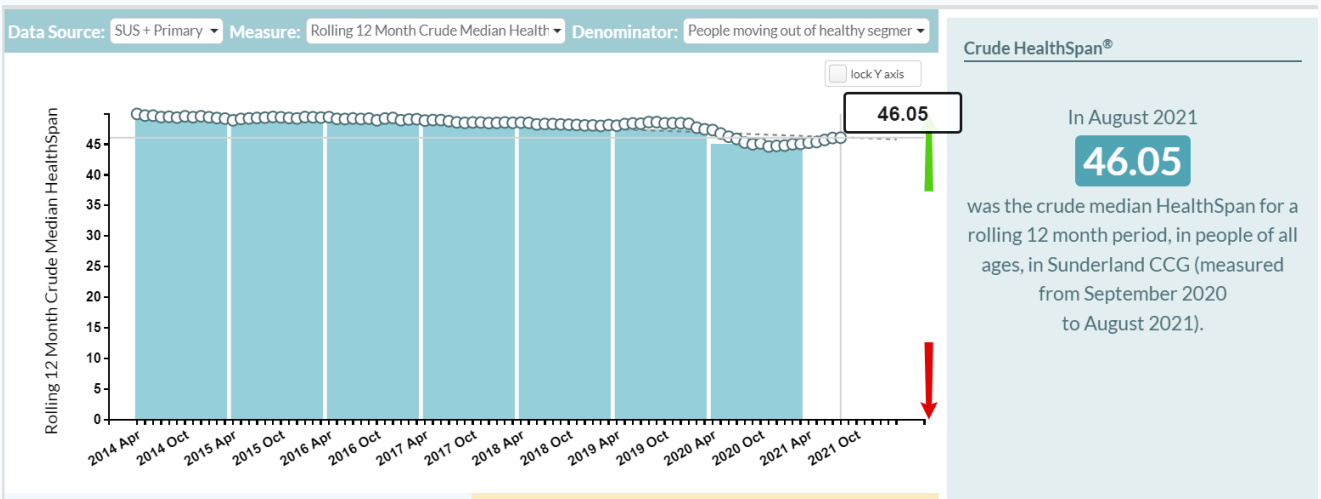
Sunderland CCG have been using 'Crude HEALTHSPAN' as a core measure to evaluate the effectiveness of the system in helping to keep people healthy.

Sunderland CCG are working to restore Crude HEALTHSPAN to pre-pandemic levels.

Current focus and Population Health Management approach

Currently Sunderland Crude HEALTHSPAN is improving. In August 2021 the Crude HEALTHSPAN was 46 years, for the rolling 12 month period.

As part of the building back better, Sunderland is developing a neighbourhood approach to improving prevention and tackling health inequalities. Population health data and outcomes are crucial to drive this agenda, to keep people as healthy as possible for as long as possible.



SPOTLIGHT 4

Improvement & outcome measurement

Outcomes in Improvement and Transformation

Measuring and sharing data on outcomes can be a catalyst for improvement. There are several underpinning reasons why measuring outcomes can be a catalyst for improvement:

- Outcomes can be defined as 'the difference we want to make', setting what a project or service wants to achieve is critical, then measuring the effectiveness of an intervention or changes.
- Identifying and measuring outcomes informs decision making, helping to determine if the project is on track to achieving its intended goal. It keeps the patient voice and 'what matters most' to the patient at the heart of decision making.
- Outcomes provide the insight to assess and identify what changes are needed to steer back on track towards the ultimate goal.
- Outcomes can be used to evaluate and provide assurance on the success or failure of the project.
- Quantitative data needs to be supplemented with soft intelligence to help focus on the bigger picture and make sure wider determinants are accounted for.