GMCA GREATER MANCHESTER COMBINED AUTHORITY

NHS in Greater Manchester

The £22 billion question – how can data help Greater Manchester optimise the impact of public services on population health?

Jon Rouse, Chief Officer

Greater Manchester: a snapshot picture

£56 Billion GVA
Fastest growing LEP in the country

2.7 Million People
Growth of 170,000+ in the last decade

104,000 People Unemployed
7.8% (above UK average of 5.5%)

77.7 Male Life Expectancy
England average: 79.3

81.3 Female Life Expectancy
England average: 83.0

112,000
People on long-term sick and inactive

GVA – Gross Value Added
LEP – Local Enterprise Partnership

12,000 Children
Not school ready

Greater Manchester Health and Social Care Partnership

Who we are

- **Greater Manchester Health & Social Care Partnership**
  - NHS organisations and councils
  - Primary care
  - NHS England
  - Voluntary, community and social enterprise sector
  - Healthwatch
  - Greater Manchester Combined Authority
  - Greater Manchester Police
  - Greater Manchester Fire and Rescue Service

What is Devolution?

- Decision making powers transferred to regional level – £6bn budget for health and social care
- More decisions about Greater Manchester made here
- Provides the means and the opportunity to do things differently to meet the needs of our residents
- Drives the integration of health and social care

Our vision

"To deliver the greatest and fastest possible improvement to the health and wellbeing of the 2.8m people of Greater Manchester"

Greater Manchester Health and Social Care Partnership

Four objectives…

- Transform the health and social care system to help more people stay well and take better care of those who are ill
- Align our health and social care system to wider public services such as education, skills, work and housing
- Create a financially balanced and sustainable system
- Make sure our services are clinically safe throughout

Devolution timeline

February 2015
£6bn devo deal signed

September 2015
Health Innovation Manchester launched

December 2015
£450m transformation funding agreed

April 2016
GM Devo goes live

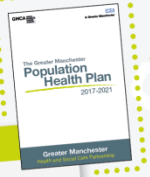
October 2016
Primary care strategy launched

November 2016
GM stroke services come top nationally

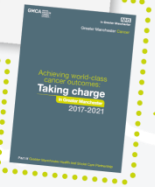
January 2017
First transformation fund allocation to localities

January 2017
MOU with VCSE sector

January 2017
Population health plan published



February 2017
Cancer plan published



February 2017
Joint Partnership Board with pharma industry

March 2017
£230m+ surplus in first year

March 2017
Urgent & emergency care plan approved

March 2017
Children's health & wellbeing board set up

May 2017
Mayor of GM elected

July 2017
Tobacco plan published

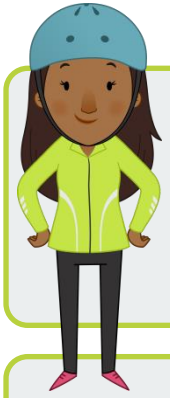
July 2017
£134m for mental health strategy

September 2017
Healthier Together business case approved

October 2017
Transformation funding allocated to all localities

Greater Manchester Health and Social Care Partnership

What we want to achieve



More GM children will reach a good level of development cognitively, socially and emotionally

Fewer GM babies will have a low birth weight resulting in better outcomes for the baby and less cost to the health system

More GM families will be economically active and family incomes will increase

More people will be supported to stay well and live at home for as long as possible

Fewer will die early from cardio-vascular disease (CVD)
Fewer people will die early from cancer
Few people will die early from respiratory disease

Greater Manchester Health and Social Care Partnership

The building blocks of transformation

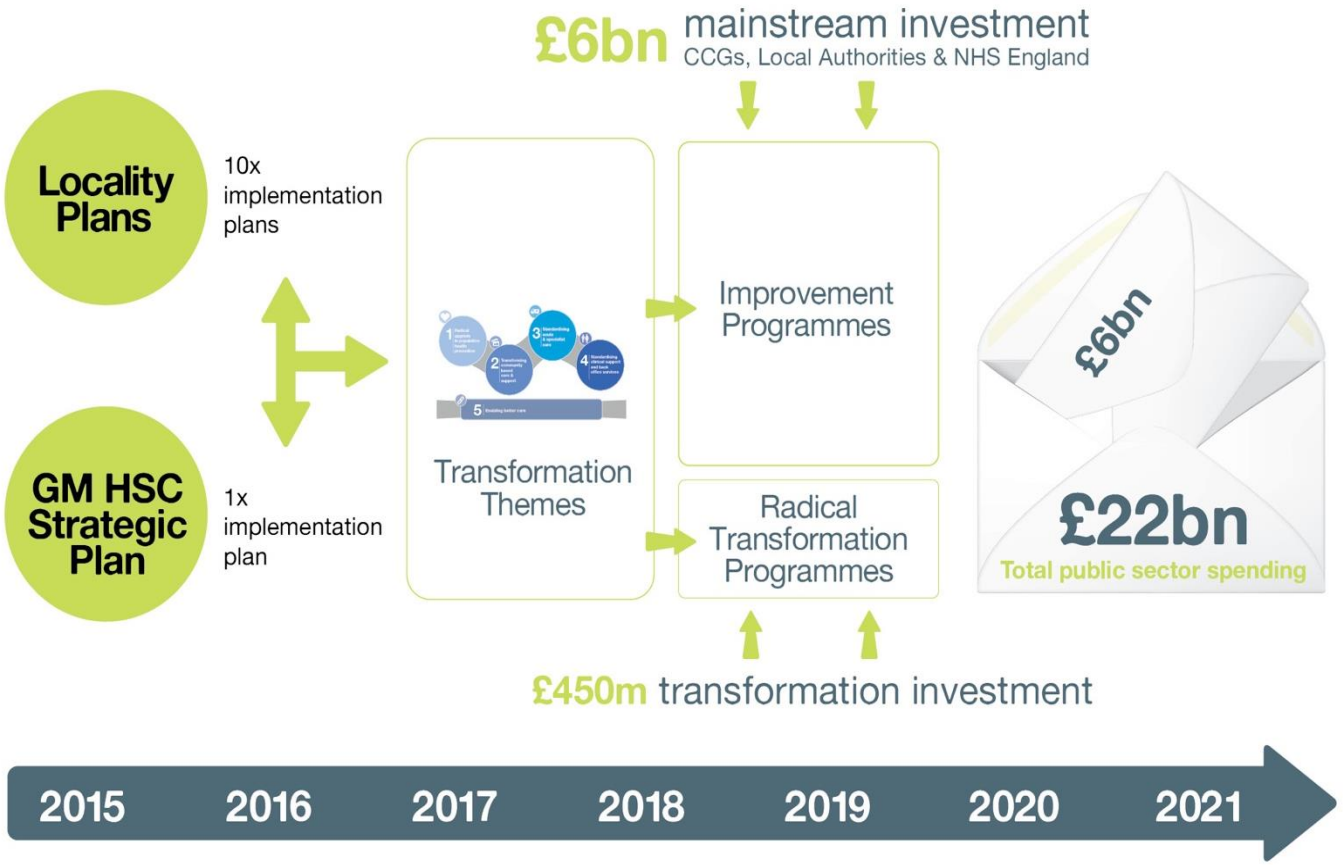
- Local care organisations coordinate delivery of integrated care in each borough
- Boroughs are made up of smaller neighbourhoods - GP practices working with other health and care professionals
- Standardisation across hospital sites and more care in the community, closer to home
- A single local commissioning function in each borough plus a GM Commissioning Hub

Vision:

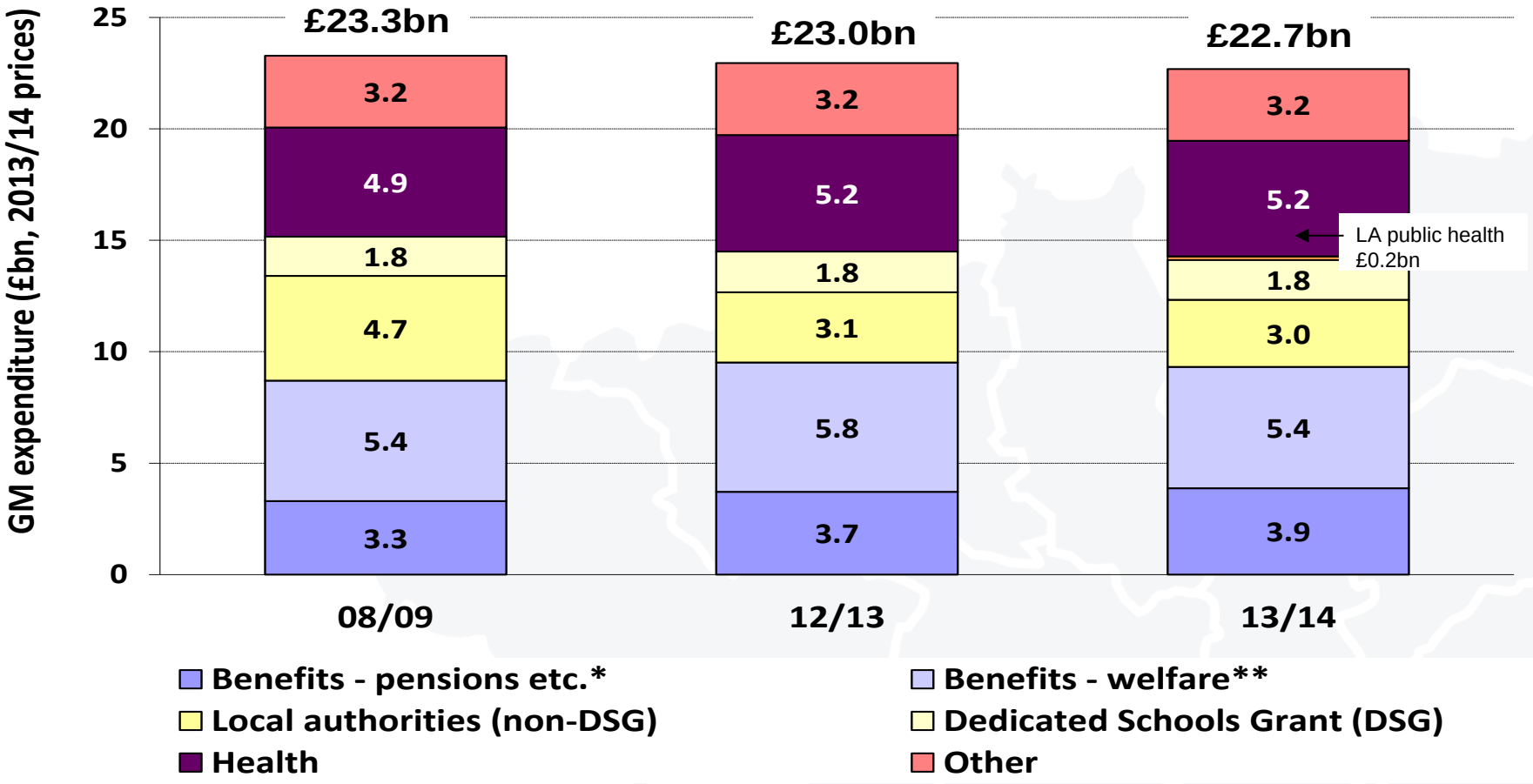
To deliver the greatest and fastest possible improvement to the health and wellbeing of the 2.8m people of Greater Manchester

We will do this by:

1. Creating a transformed health and social care system which helps more people stay well and takes better care of those who are ill
2. Aligning our health and social care system far more widely with education, skills, work and housing
3. Creating a financially balanced and sustainable system
4. Making sure the system remains clinically safe throughout.



Public Sector Expenditure in Greater Manchester



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We're Shifting the Balance of Spending, Focusing Resources on Early Intervention and Prevention

Working in collaboration → to support GM residents → and improve outcomes

- Local Government
- Health services
- Police
- Fire & Rescue
- Housing

- Thinking about cumulative impact rather than single service planning
- Identifying and addressing demand before it escalates
- Supporting individuals and families collaboratively, working across organisational boundaries
- Reducing demand on expensive, reactive services

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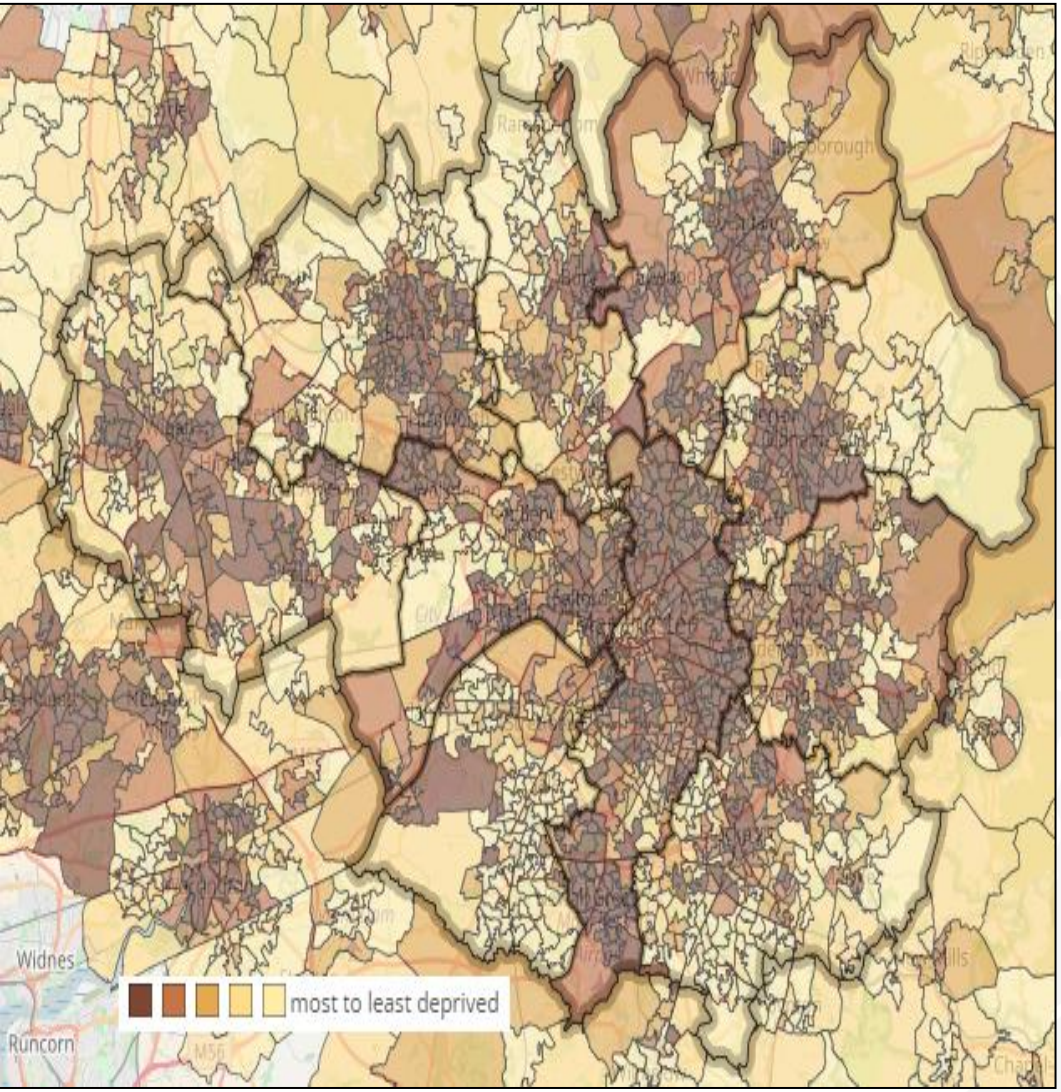
Index of Multiple Deprivation by Super Output Area, Greater Manchester 2015



In a national context, a fifth (21%) of GM's SOAs are within the 10% most deprived – a small improvement on the same analysis of the IMD2004 where just under a quarter (24%) of GM SOAs were within the 10% most deprived.

The overall improvement on the IMD seen in GM has largely been driven by Manchester, with a reduction from 72% of its neighbourhoods in the top fifth in 2004 to 59% in 2015

However, Manchester still has more than four times as many neighbourhoods in the top 10% (41%) than would be expected if deprivation were evenly distributed. Salford (29%), Rochdale (28%) and Oldham (23%) also had high proportions - overall

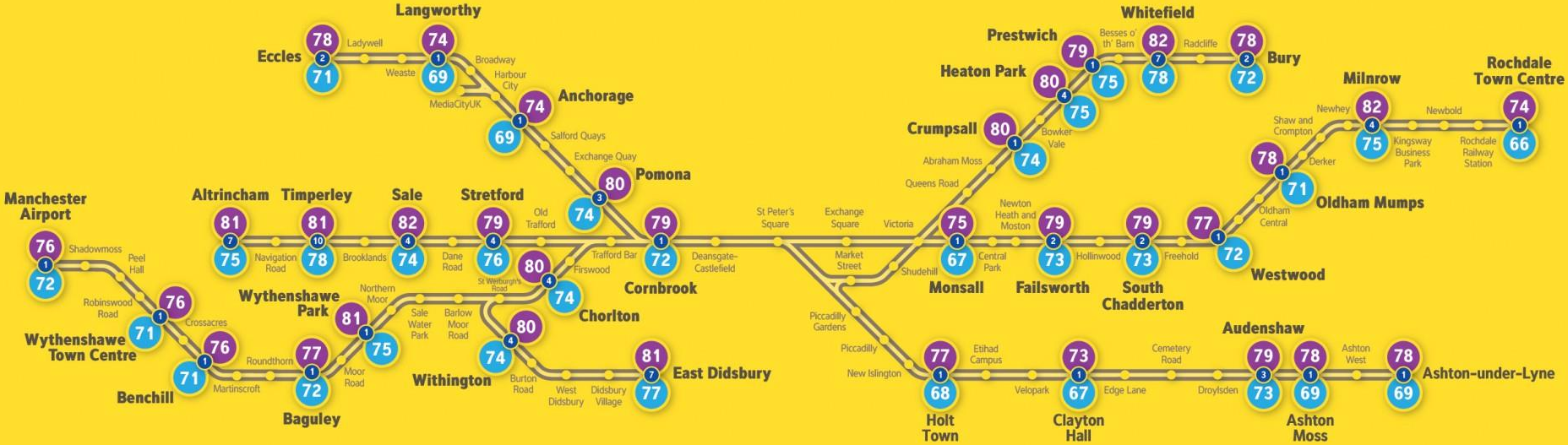
585,000 people, more than a fifth of GM population, live in these highly deprived neighbourhoods.

Forty-one Lower Super Output Areas (out of 1673) in GM are classed as 'very highly deprived', ranking in the top 1% nationally

Source: Index of Multiple Deprivation

Life on the line? Differences in life expectancy across Greater Manchester

Female life expectancy at birth (years) **Male** life expectancy at birth (years) **IMD** Decile (1 most deprived; 10 least deprived)



Tram Network: The Metrolink tram network across Greater Manchester includes nearly 100 kilometres of track and 93 stops. In 2015 there were around 33.4 million journeys (Metrolink 2015). The average journey time between tram stops is 2 minutes, but some stops are further apart.

Data Sources: Office for National Statistics experimental ward level life expectancy and health living life expectancy estimates (ONS 2006) linked to selected Greater Manchester Metrolink tram stops. The selection highlights some of the biggest differences between tram stops. We also include information on socio-economic deprivation at ward level from the Index of Multiple Deprivation.

The life expectancy data is based on mortality among those living in each particular ward in 1999-2003. The estimates are not the exact number of years a baby born in the ward could actually expect to live, both because the death rates of the area are likely to change in the future, as is health care provision and because many of those people born in the ward will live elsewhere for at least some part of their lives.

MANCHESTER 1824
The University of Manchester

What makes your area different to other areas? Let us know. Email: life.expectancy@manchester.ac.uk

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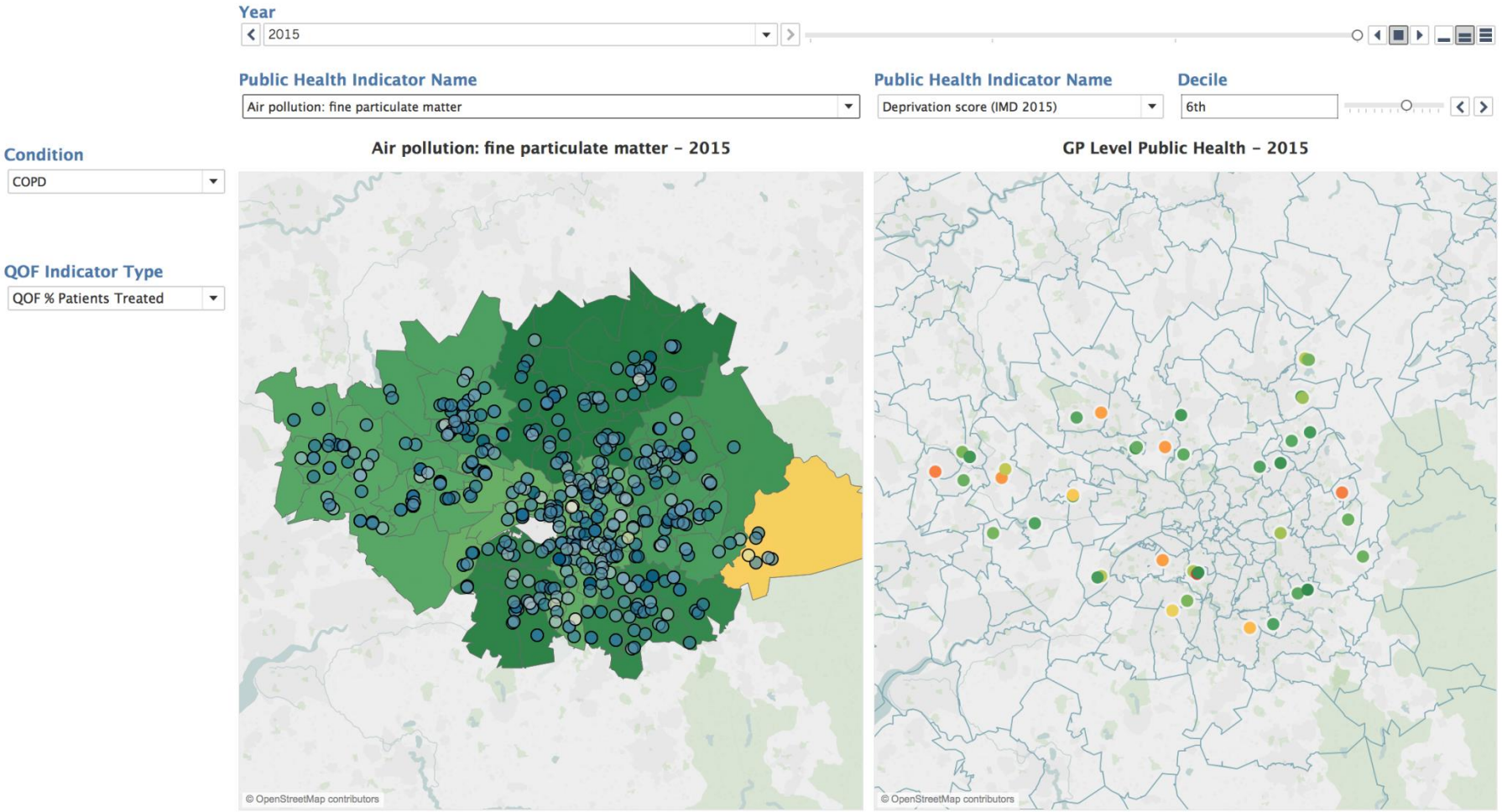
COPD over Air Pollution, against deprivation score.



Social Care Partnership

Some of the biggest areas of inequality from national evidence

- **Life expectancy:** Men and women from the Other White ethnic group have the longest estimated life expectancy. Bangladeshi men and Pakistani women have the lowest estimated life expectancy
- **Cancer**: There is evidence that BME groups have reduced awareness of cancer symptoms and report facing barriers to accessing care
- **Elderly care:** Early-onset dementia is more common in BME groups. BME populations are also less likely to access palliative care.
- **Mental health:** Schizophrenia rates are highest in Black Caribbean and White Irish populations. Suicide rates are highest among the White Irish community. Mental health problems are common in asylum seeker and Gypsy / Traveller communities
- **Cardiovascular disease**: Black populations have relatively high rates of stroke and hypertension but relatively low levels of coronary heart disease. South Asian populations are at increased risk of developing coronary heart disease.
- **Diabetes:** Prevalence is highest among Asian and Black Caribbean groups.

Our transformation themes

Greater Manchester Health and Social Care Partnership

Theme 1
Radical Upgrade in Population Health Prevention

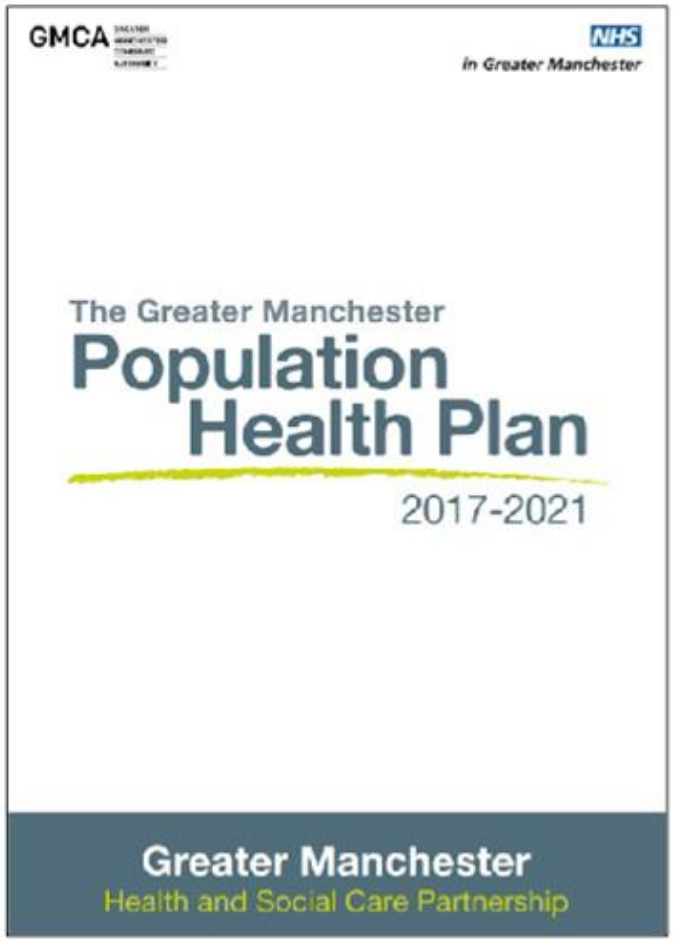
Greater Manchester Health and Social Care Partnership

What do we mean by population health?

- **Population health = "the health outcomes of a group of individuals, including the distribution of such outcomes within the group“** – this definition speaks to issues of education, housing, employment, family/community, environmental health hazards, as well as improving services, clinical effectiveness, service planning etc
- However, across GM ‘population health’ is a phrase currently used to variously describe:
- a system of NHS provision only; primary, secondary and tertiary services (*population health medicine?*)
- the totality of NHS and social care provision (*population health management?*)
- The defined health specific demands or needs of a population – the totality of individual health requirements (*omitting socio-economic and behavioural risk factor influence*)

  – In order to reduce inequality and realise the maximum benefits that devolution offers we need to adopt the broadest definition of population health because the biggest health gains may arise from activity delivered outside the healthcare system (e.g. air pollution, housing)

GM Population Health Plan



Our strategic transformational objectives:

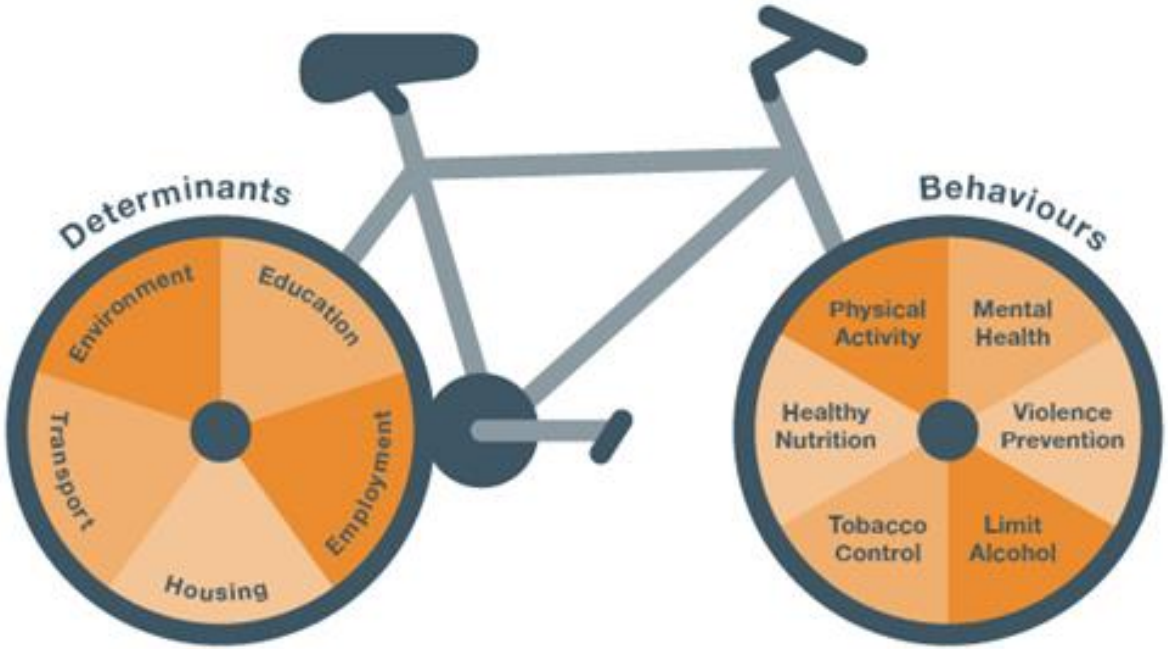
- Radically reforming the role of population health as part of a devolved system
- Not just doing more prevention but doing it differently by investing jointly
- Taking innovative approaches developed within localities and testing them at scale
- Aligning public health programmes with new transformed system architecture
- Developing a unified approach to commissioning public health
- Building the evidence base for the cost effectiveness of public health interventions
- Implementing and embedding evidence based approaches consistently at scale

Making the case for investment

Public health can be part of the solution

Investment in prevention reduces health costs and lowers welfare benefits. Promoting health and wellbeing enhances resilience, employment, and social outcomes.

What works



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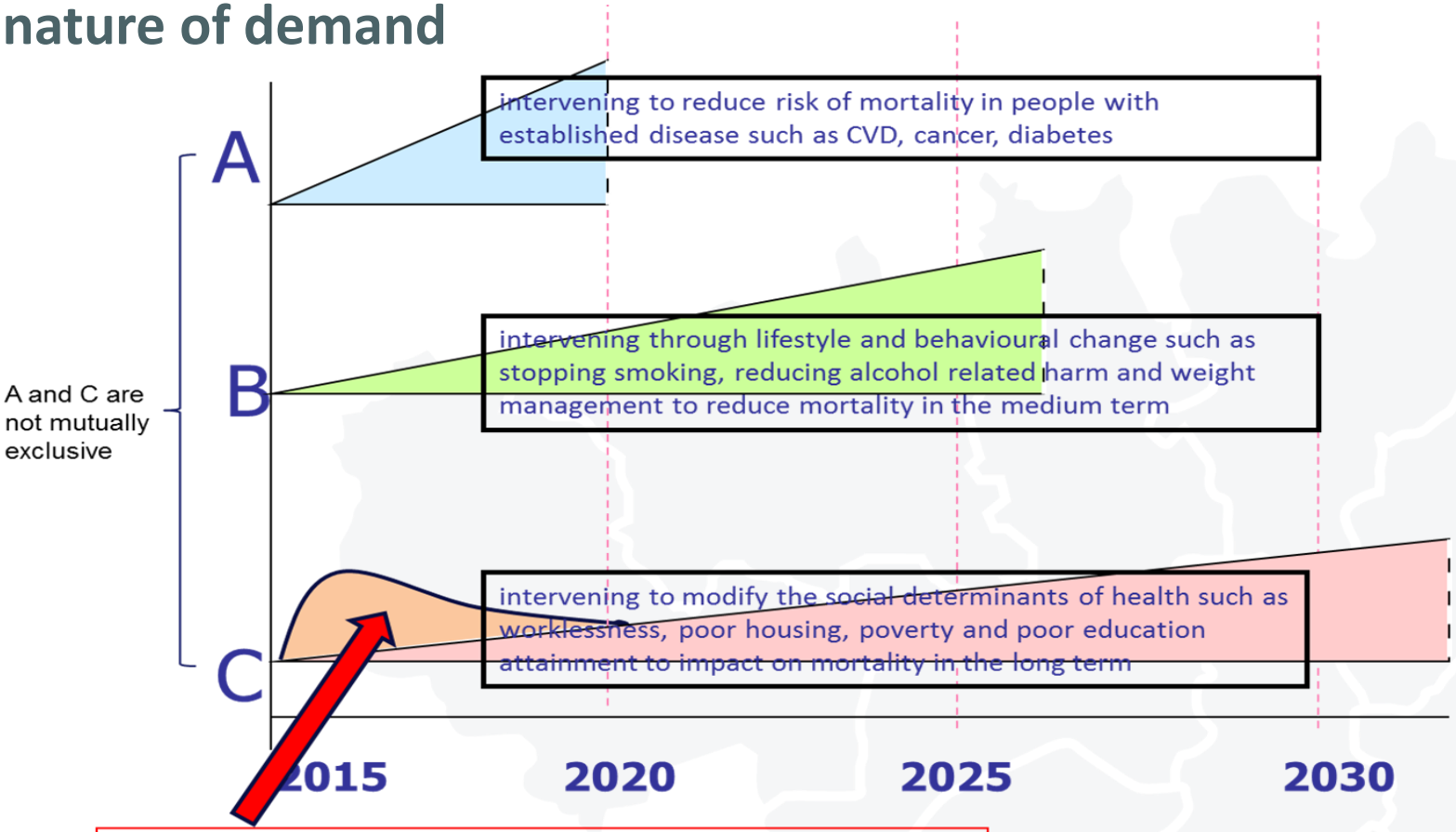
We need to understand Investment & return in ways which change the nature of demand



Tobacco free Greater Manchester: Reducing adult smoking prevalence by around a third, from the current 18.4% to 13% by the end of 2020, and to 5% by 2035.

How was data used to understand the issue?

Smoking prevalence reduction trend data mapped using existing smoking tool kit / adult population survey. Analysis then carried out by Professor West to set out key actions that will drive prevalence reduction

Table 2: Key actions needed to achieve faster reduction in prevalence

Increasing quitting and reducing uptake

Policy	Potential constribution to prevelence reduction[1]	Comment
Increase real cost of tobacco	↓0.2	Amplify tax increases via targeted localised communications, tackle illicit supply and demand
Run regional mass media campaigns	↓0.2%	Amplify national campaigns and run campaigns at Greater Manchester and targeted borough level.
Implement Very Brief Advice in Primary Care	↓0.2%	Offer support to 50% of smokers
Introduce Stop-Smoking+ model of support, and extend Secondary care provision	↓0.2%	Ensure that all smokers have access to appropriate support to stop smoking
Reduce access to tobacco	↓0.1	Restricting outlets, extending smoke-free, age of sale

[1]Over and above the existing 0.5%pa prevalence reduction

GM Making Smoking History 2/2

The journey so far

- Data allows us to identify target groups such as; low income households; people with mental health conditions; living in social isolation or in the criminal justice system; LAC and; LGBT groups

- In GM, for example, 27.5% of routine and manual (R&M) workers currently smoke compared to 26.5% in the country as a whole so R&M groups need particular focus.

Table 3: Number and % of smokers by borough (Annual Population Survey 2016 data)

Local authority	Estimated numbers of smokers (age 18+)	% of smokers (age 18+)	% of Routine & Manual smokers (age 18+)
Bolton	38,699	17.9	25.3
Bury	27,846	19.1	29.9
Manchester	91,452	21.7	28.7
Oldham	32,697	18.8	27.4
Rochdale	31,952	19.4	32.1
Salford	39,351	20.3	31.0
Stockport	27,839	12.2	22.4
Tameside	38,419	22.1	35.6
Trafford	22,645	12.6	28.0
Wigan	45,175	17.7	26.3
Greater Manchester	**396,127**	**18.4**	**27.5**

Sources: Annual Population Survey 2016 and ONS Single Year Mid Year Population Estimates 2016

How will data be used to further assist with delivery?

- Commissioned a monthly boosted GM sample for the Smoking Toolkit to support tracking of actual progress alongside other data sets
- Data from the Lifestyle and Wellness digital platform will also allow us to see how smokers are responding to social / digital media as 96% of people don't touch specialist smoking services
- Development of an outcomes framework to support consideration of each localities contribution to achievement of the GM ambition

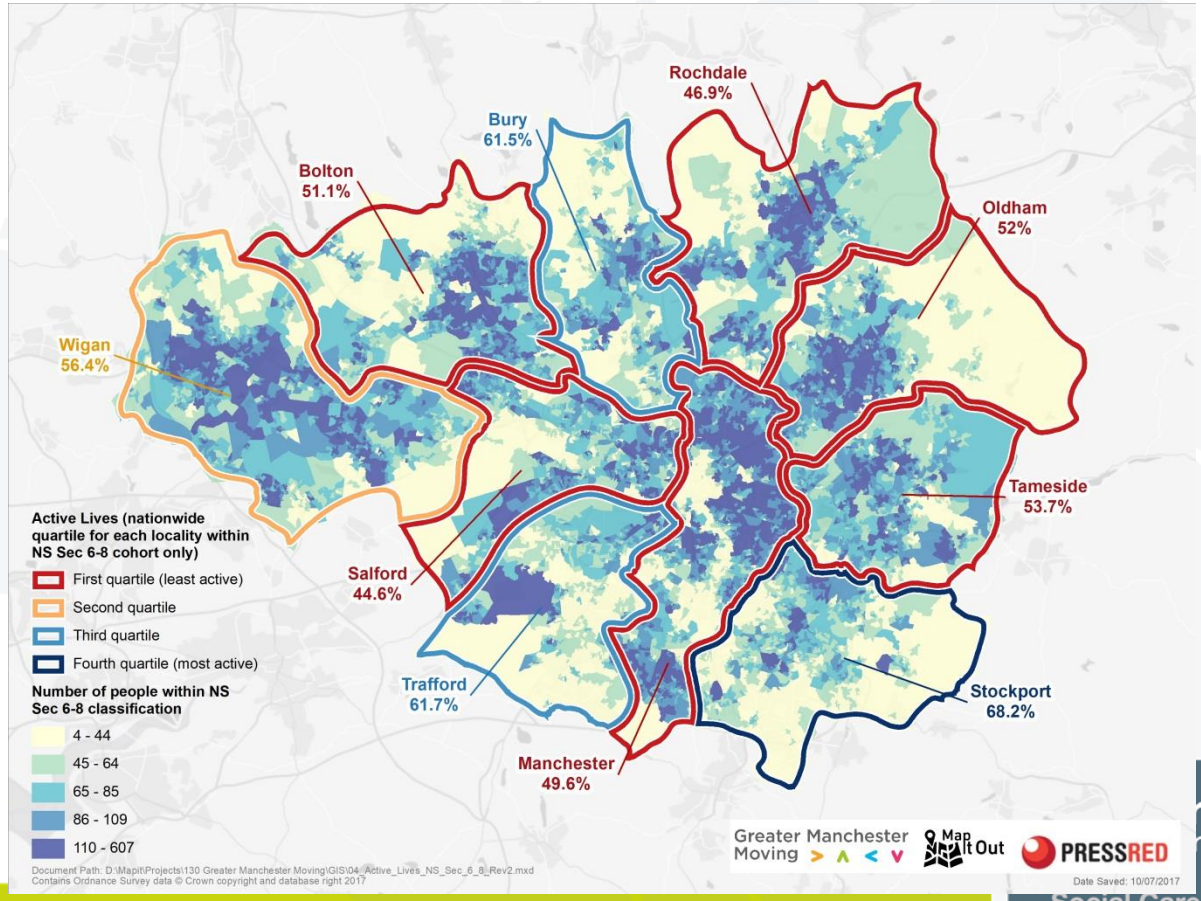
Get Greater Manchester Moving: Double the rate of past improvements, reaching the target of 75% of people active or fairly active by 2025

How was data used to understand the issue?

- Review of physical activity behaviour data to develop an understanding of trends, inequalities and comparisons to national and nearest neighbours, to help prioritise target audiences

- Development of slides and tools for the workforce to use, in order to become more evidence led and insight driven in their work.

- In Greater Manchester 6 out of its 10 areas are within the least active quartile (see diagram)



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The journey so far

How will data be used to further assist with delivery?

- Need to close gaps in robust data
- Look at how we use real time data.
- Overlay physical activity data with assets and other data
- Place equal value on the data and the stories and voices of people via asset based community development approaches with priority audiences

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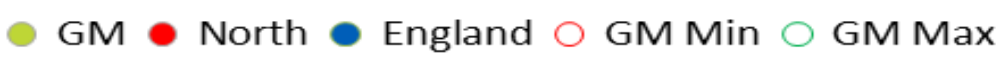
LTCs In Greater Manchester

Long Term Condition	People in GM	Greater Manchester	GM Minimum	GM Maximum	North	England
Hypertension	398,300	13.4%	10.3%	15.9%	14.6%	13.8%
Depression	218,500	9.4%	5.9%	13.0%	9.2%	8.3%
Asthma	187,900	6.3%	5.7%	6.9%	5.9%	6.3%
Diabetes	163,700	7.0%	6.2%	8.1%	6.5%	6.9%
Coronary Heart Disease	101,000	3.4%	2.5%	4.2%	3.8%	3.2%
Chronic Kidney Disease	89,900	3.9%	2.8%	5.8%	4.5%	4.1%
COPD	67,000	2.3%	1.9%	2.7%	2.4%	1.9%
Stoke & TIA	51,800	1.7%	1.3%	2.0%	2.0%	1.7%
Atrial Fibrilation	44,800	1.5%	1.0%	2.0%	1.8%	1.7%
Serious Mental Health	29,300	1.0%	0.8%	1.2%	0.9%	0.9%
Heart Failure	24,400	0.8%	0.6%	1.0%	0.9%	0.8%
Dementia	21,600	0.7%	0.5%	0.9%	0.8%	0.8%
Epilepsy	20,700	0.9%	0.8%	1.0%	0.9%	0.8%



Wider Impact of LTCs

- The population is ageing and age is a major factor in the prevalence of Long Term Conditions, including multiple Long Term Conditions
    - 14% of people aged under 40 with a Long Term Condition
    - 58% of people aged 60 or over with a Long Term Condition
- Increase in the number of people with multiple Long Term Conditions
- Link with Long Term Conditions and Socio-economic status
- Financial pressures on Health and Social Care
    - People with LTCs are most intensive users of expensive services
- LTCs not just a health issue, they affect the ability to work or lead a full life
    - 63% of people aged 16-64 with a Long Term Condition are in employment (compared to 75% of the population as a whole)

LTC Prevalence across GM by GP Practice

Condition Heat Map

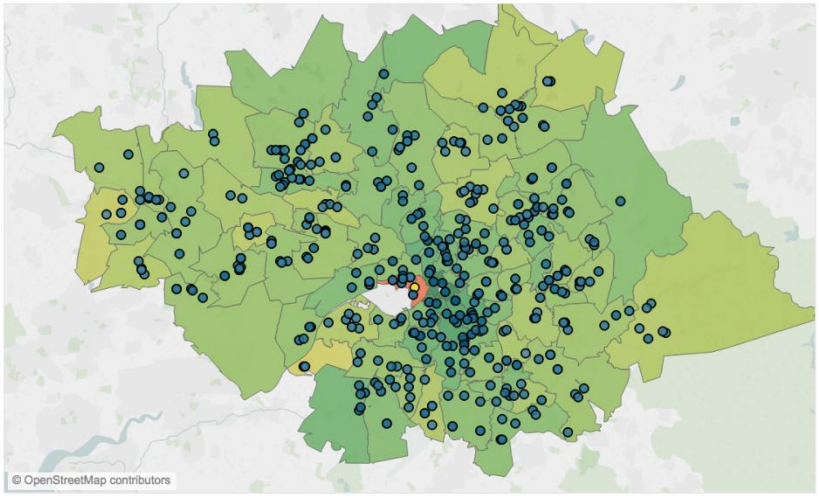
CCG: (All)

2016

Condition: (Multiple values)

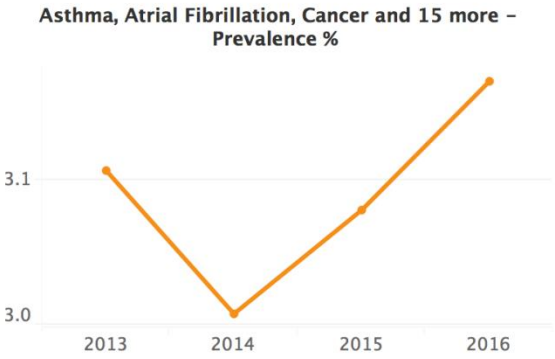
Map Type: Prevalence

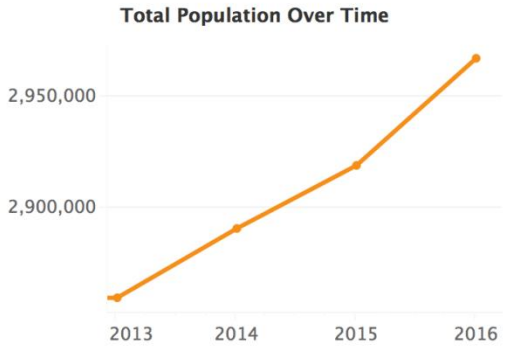
GP Practice: (All)



Total Number of Practices	480
Total Population	2,966,954
Count of Registered Conditions	1,538,731
Avg. % Patients Treated	81.7%
Avg. Age Specific Prevalence	3.2%
Avg. Exclusion Rate	12.3%

	2013	2014	2015	2016
Bolton	3.2	3.1	3.2	3.2
Bury	3.0	2.8	2.9	3.0
Central Manchester	2.3	2.2	2.2	2.3
Heywood, Middleton And Rochdale	3.2	3.2	3.4	3.5
North Manchester	2.8	2.7	2.8	2.9
Oldham	3.1	3.0	3.1	3.1
Salford	3.4	3.2	3.2	3.2
South Manchester	2.9	2.8	3.0	3.0
Stockport	3.2	3.1	3.1	3.3
Tameside And Glossop	3.2	3.2	3.3	3.4
Trafford	3.0	3.0	3.1	3.2
Wigan Borough	3.4	3.3	3.3	3.4
Grand Total	3.1	3.0	3.1	3.2





LTC % Treated across GM by GP Practice

Condition Heat Map

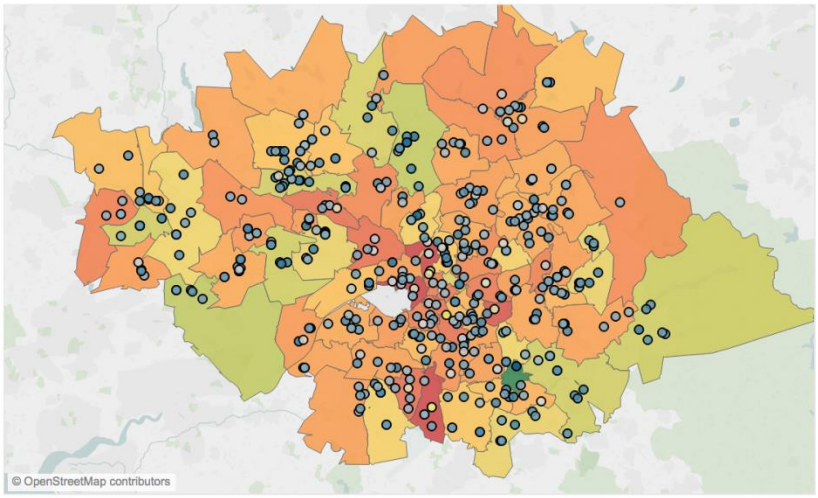
CCG: (All)

2016

Condition: (Multiple values)

Map Type: QOF % Patients Treated

GP Practice: (All)



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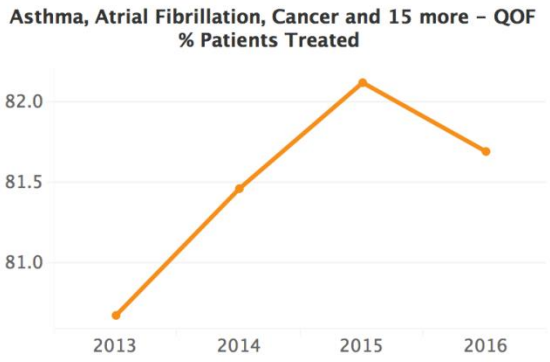
Bury	79.9	82.6	84.2	83.3
Central Manchester	79.6	79.1	80.8	80.0
Heywood, Middleton And Rochdale	80.6	81.4	81.7	80.7
North Manchester	78.3	78.5	80.8	80.9
Oldham	80.2	81.2	81.3	81.7
Salford	81.4	81.5	80.9	80.0
South Manchester	77.5	77.8	78.9	78.4
Stockport	83.0	84.4	84.0	83.7
Tameside And Glossop	80.6	81.6	81.5	82.1
Trafford	80.3	81.3	82.2	81.5
Wigan Borough	82.0	82.6	83.4	82.7
Grand Total	80.7	81.5	82.1	81.7



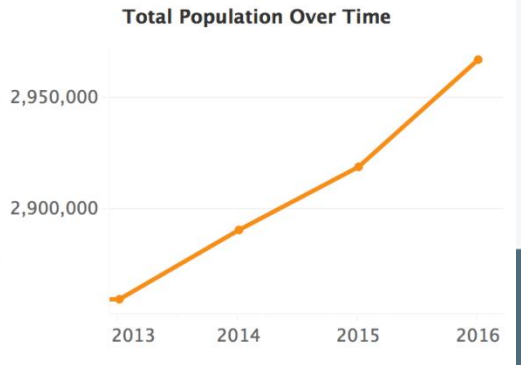
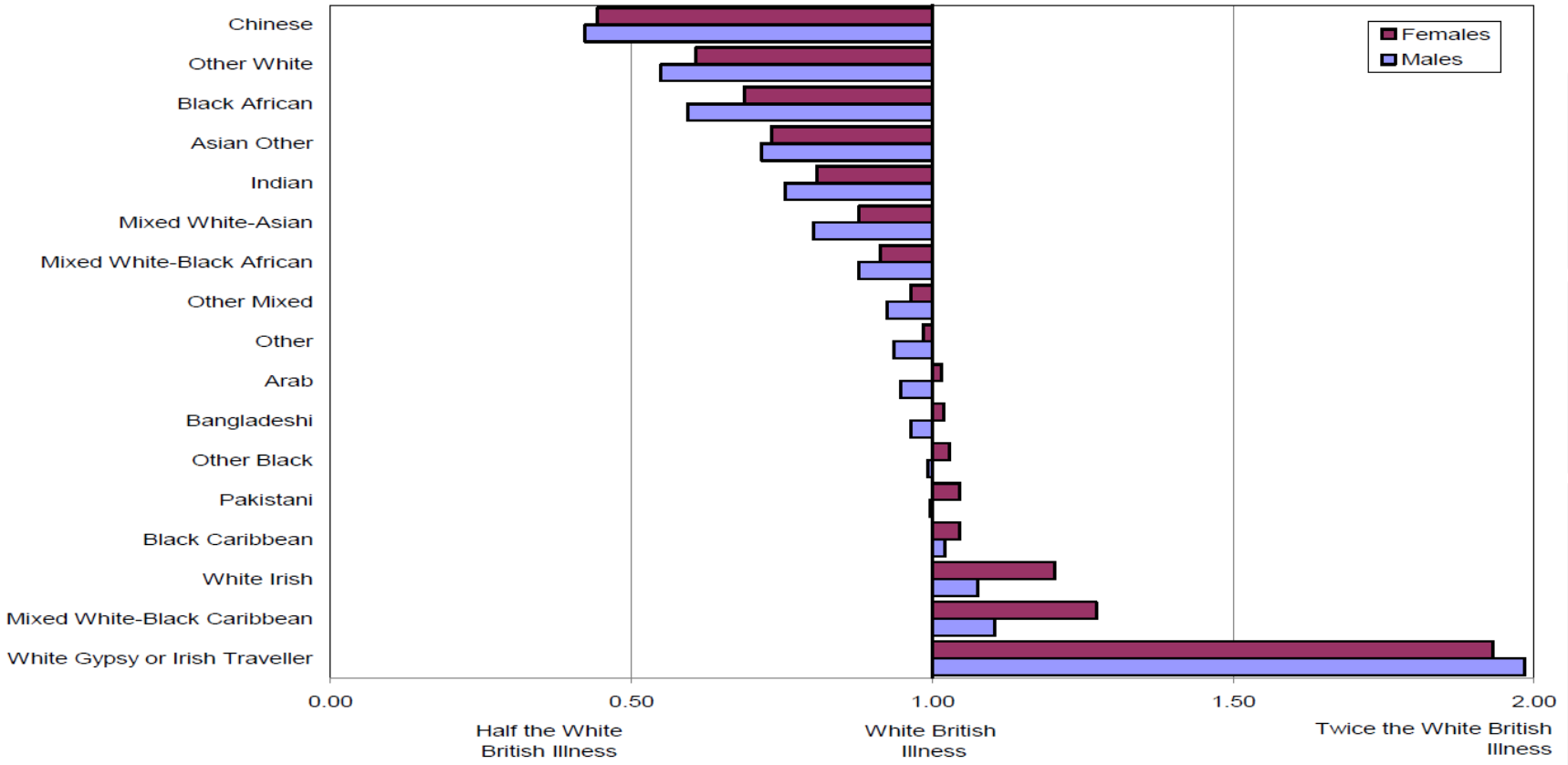


Figure 2: Standardised rate of limiting long-term illness by BME group and gender



Theme 2
Transforming Community Based Care and Support

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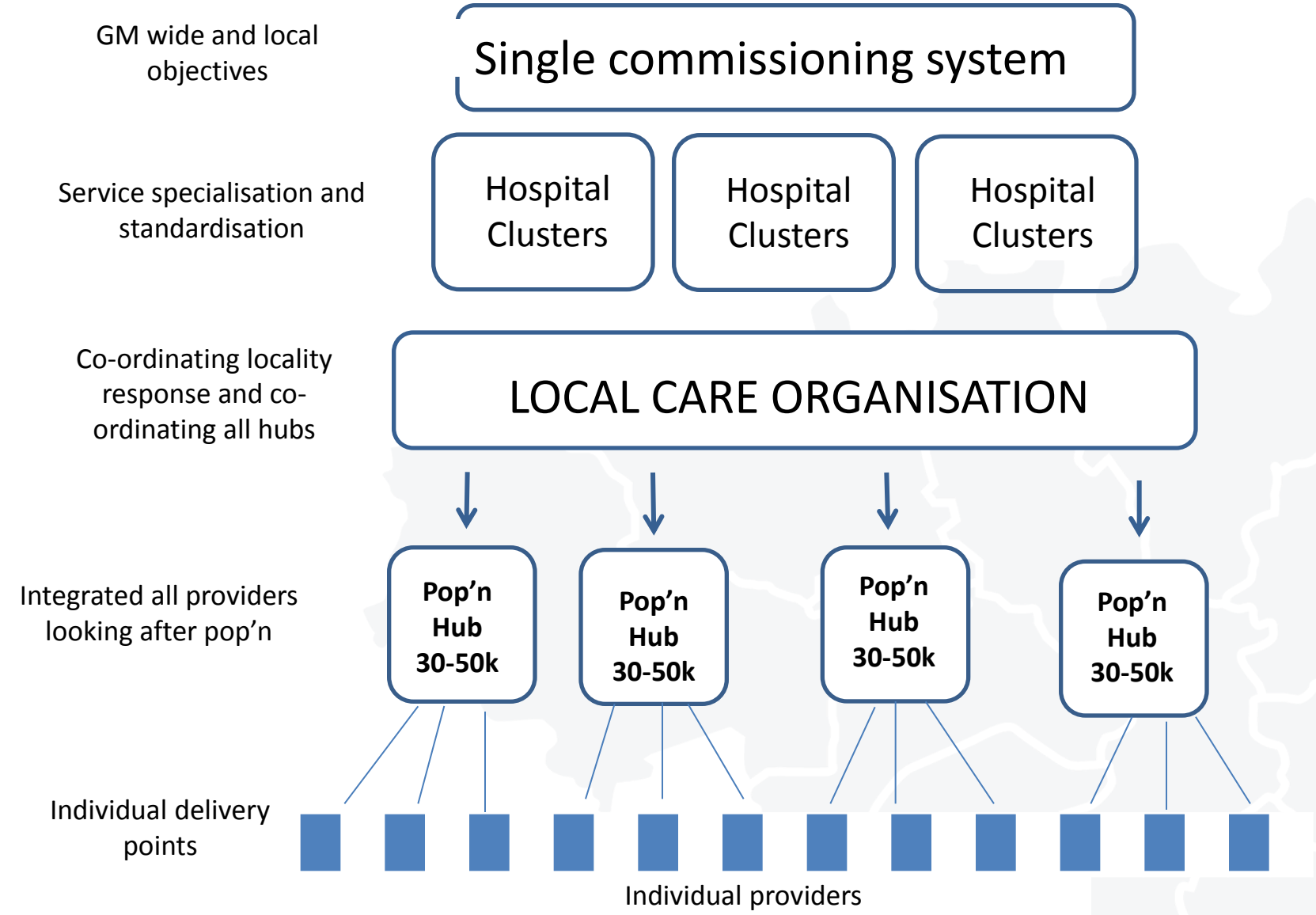
The journey so far



Greater Manchester Health and Social Care Partnership

GM Programme for Primary Care Reform

GM Excellence Programme

- A single world class hub to support General Practice and act as a programme for improvement.
- Identify best practice and areas of excellence
- Offer a coherent and consistent offer in terms of rescue, resilience and improvement
- Develop our clinical leaders to enable them to offer peer support or more formal arrangements to support general practice

Delivering Improved Access

- Embedded within LCOs and rooted within the neighbourhood delivery model
- Investment of £6ph
- Delivered via a hub based model serving geographical neighbourhoods
- Help to alleviate pressures in core hours
- Manage patient flow and demand across 7 days, e.g. book more acute activity into 7 day hubs

Workforce

- Funding to support the recruitment of c100 additional clinical pharmacists in General Practice
- Roll out training programme for care navigators and medical assistants
- Learn from good practice already taking place
- Pilot group consultations in 50 practices
- Looking at tools to support General Practice in workforce planning
- Access to national programmes such as GP development and Practice Manager development programmes

GM Primary Care Estates

- Capital pipeline in place to improve primary care estate
- Virtual map to illustrate 'neighbourhood hubs' serving populations of 30k-50k
- Toolkit to inform local discussions with GP practices and Strategic Estate Groups to enable GPs to move to neighbourhood hubs where appropriate
- Committed to increased investment in primary care estates

Greater Manchester Health and Social Care Partnership

Adult Social Care Transformation

Greater Manchester Health and Social Care Partnership

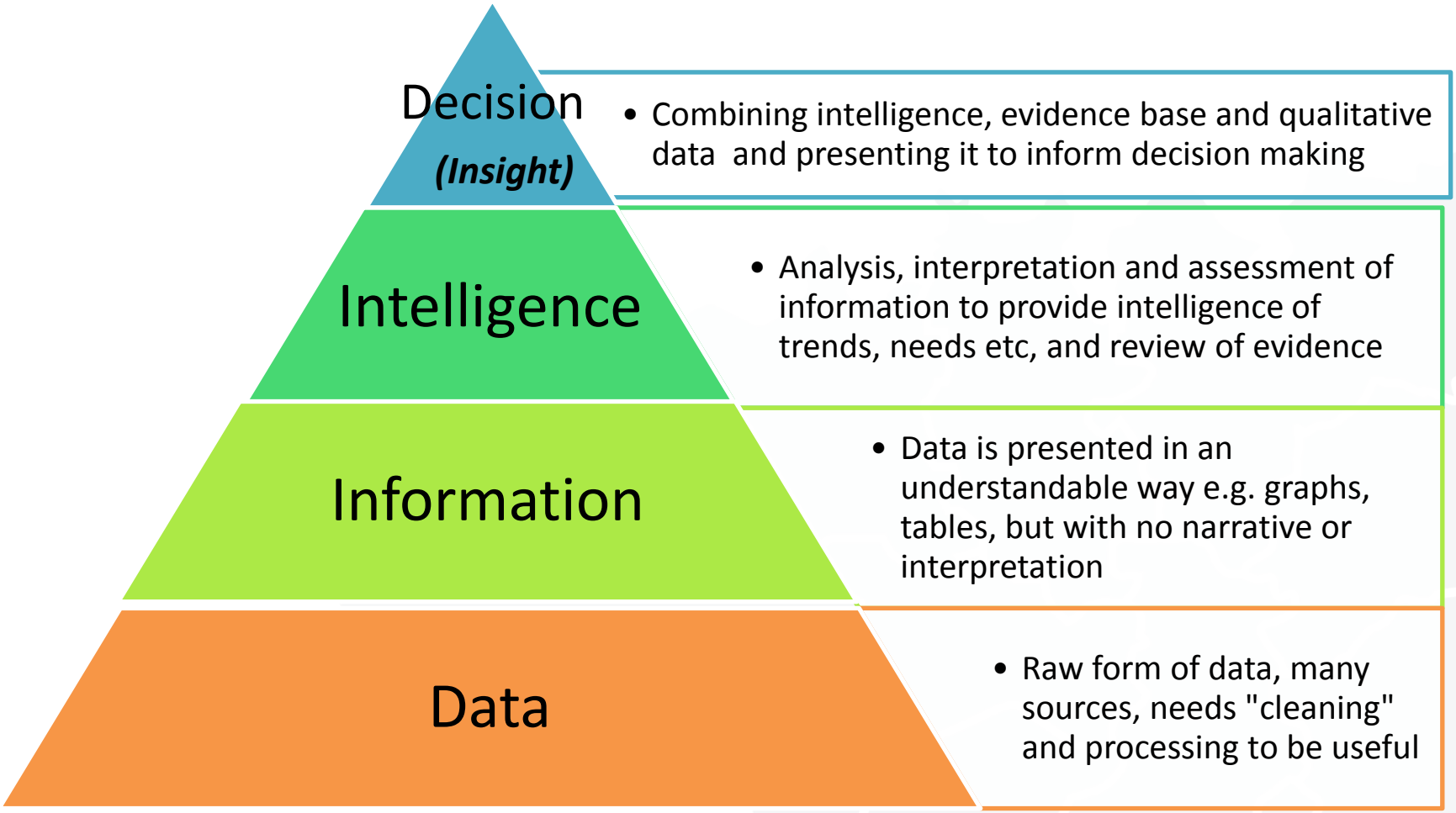
Building our intelligence capacity across Greater Manchester

Greater Manchester Health and Social Care Partnership

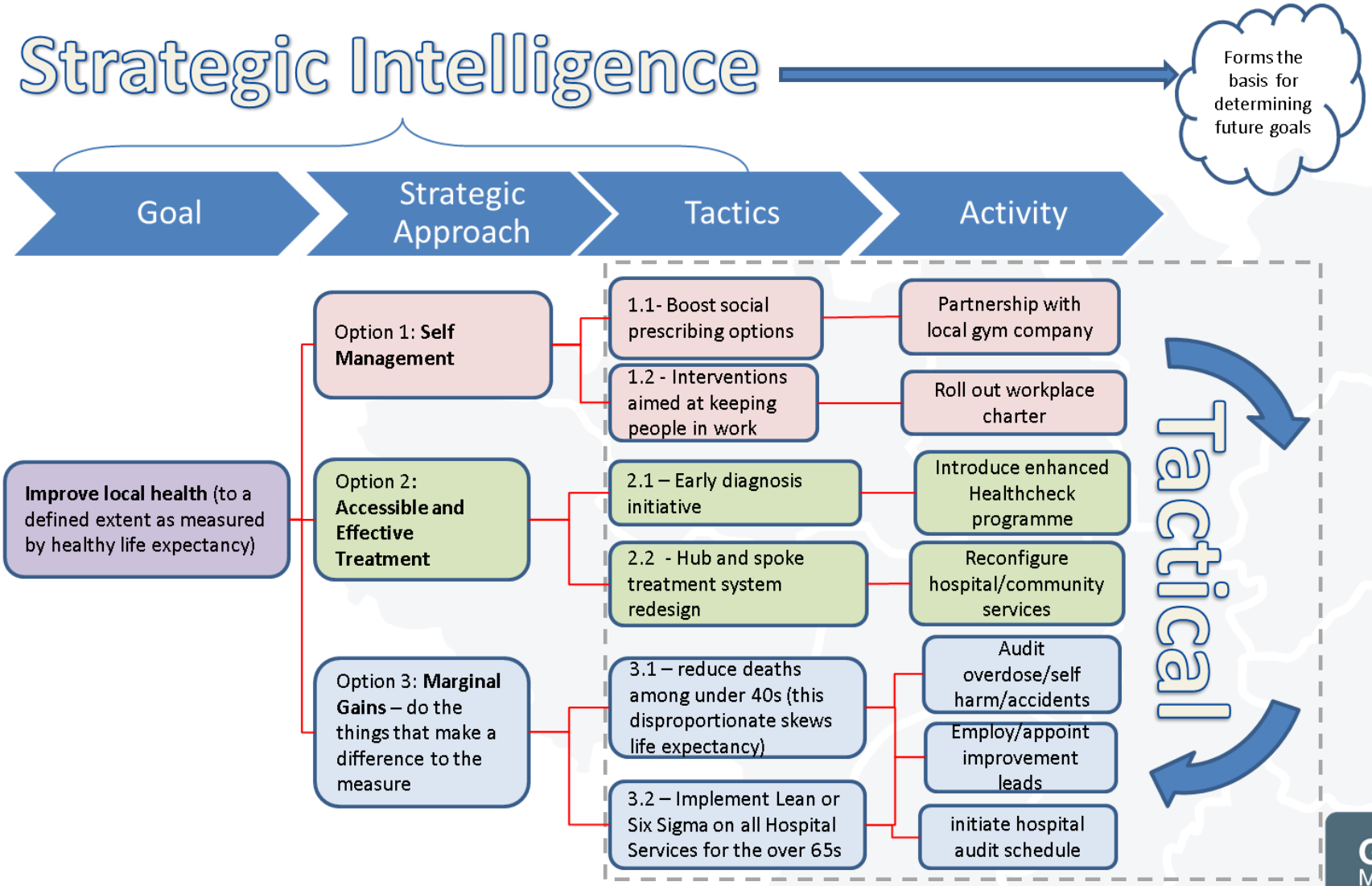
Doing it differently in GM

- USP of GM is ability to combine data & improve turnaround of data.
- Engagement is good across the GM footprint
- Early stages of implementation
- Iterative process due to different levels of digital maturity
- Collaboration resulting in symbiotic benefits
- Tableau as central dissemination tool

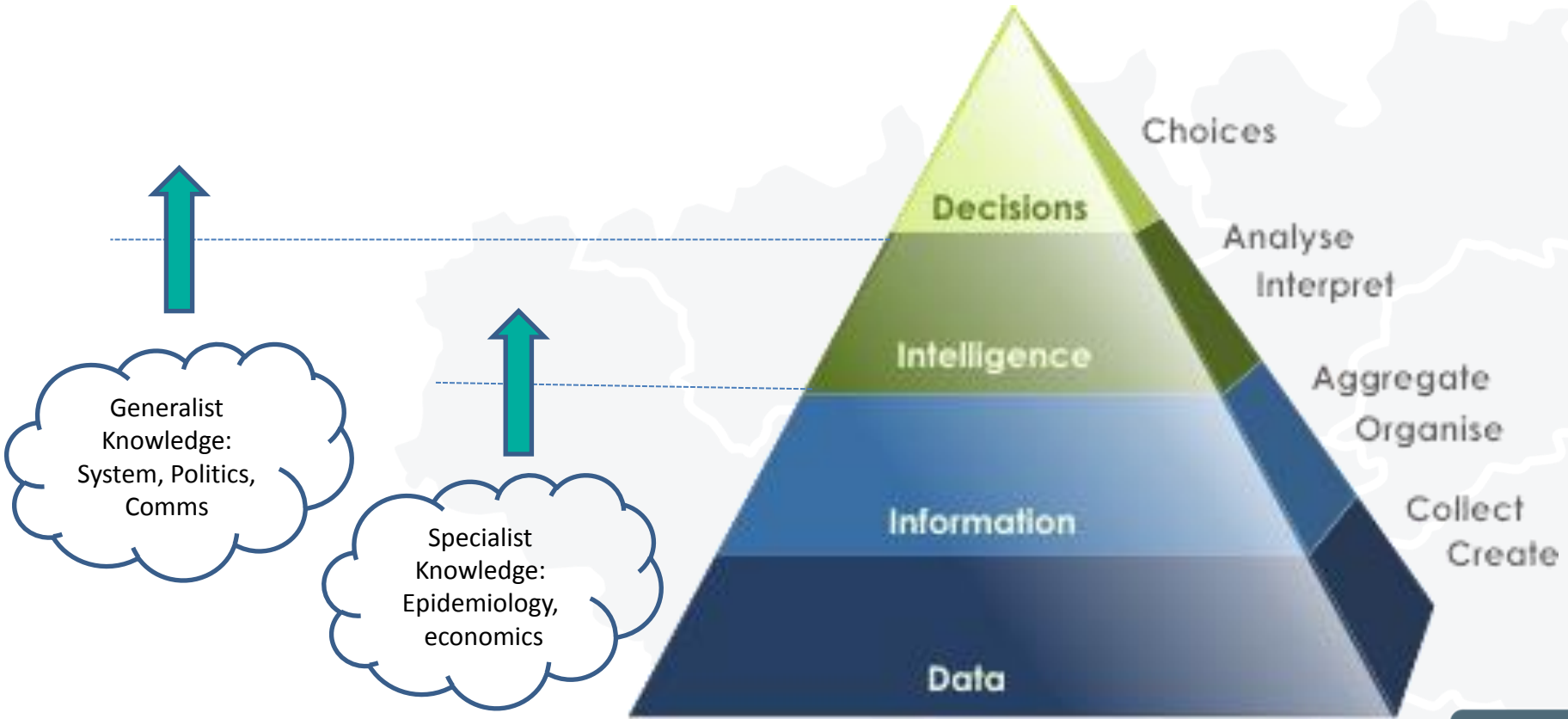
What do we mean by 'Intelligence'



The re-emergence of strategic intelligence



Actionable data



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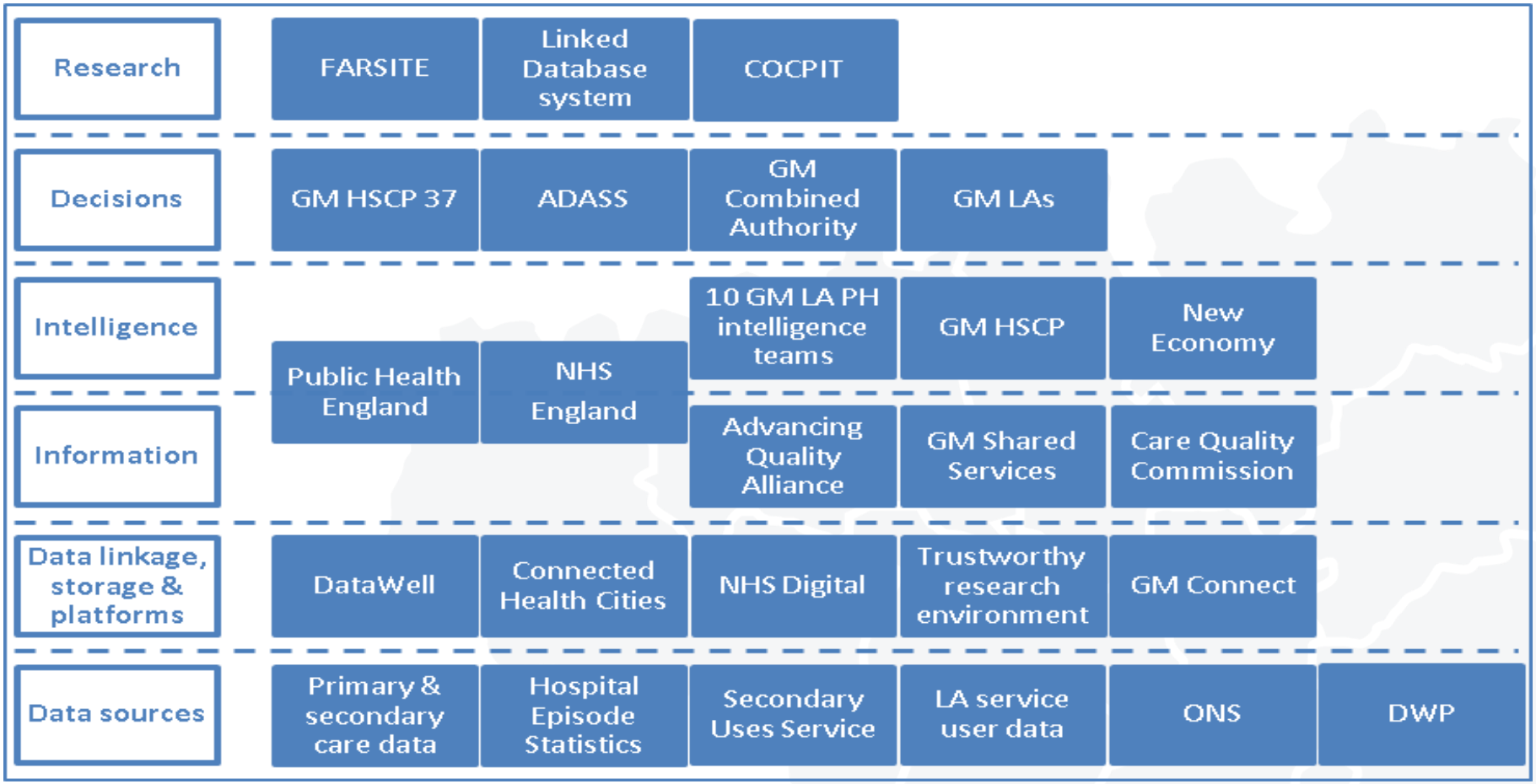
GM Data & Intelligence Landscape



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The journey so far

Good

"After careful consideration of all 437 charts, graphs, and metrics, I've decided to throw up my hands, hit the liquor store, and get snockered. Who's with me?!"

"Quick, let's make the decision between us before everyone else shows up…"

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Connecting the dots…

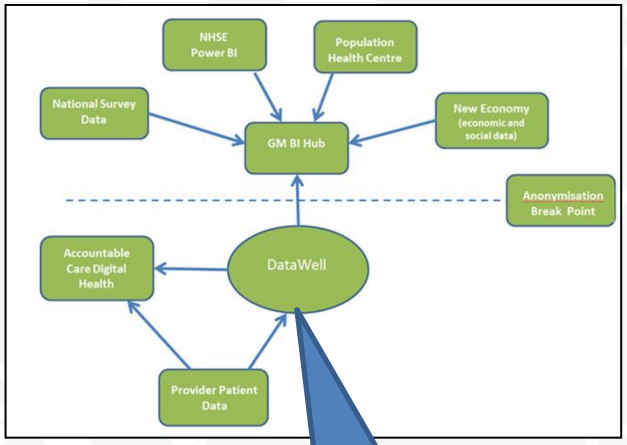
Non-health system development

Health system development

?

GMCA GREATER MANCHESTER COMBINED AUTHORITY

inc. GM Mayoral Office, GM Resilience etc.



Devo health data request

Academia

Wider determinants and social care data request

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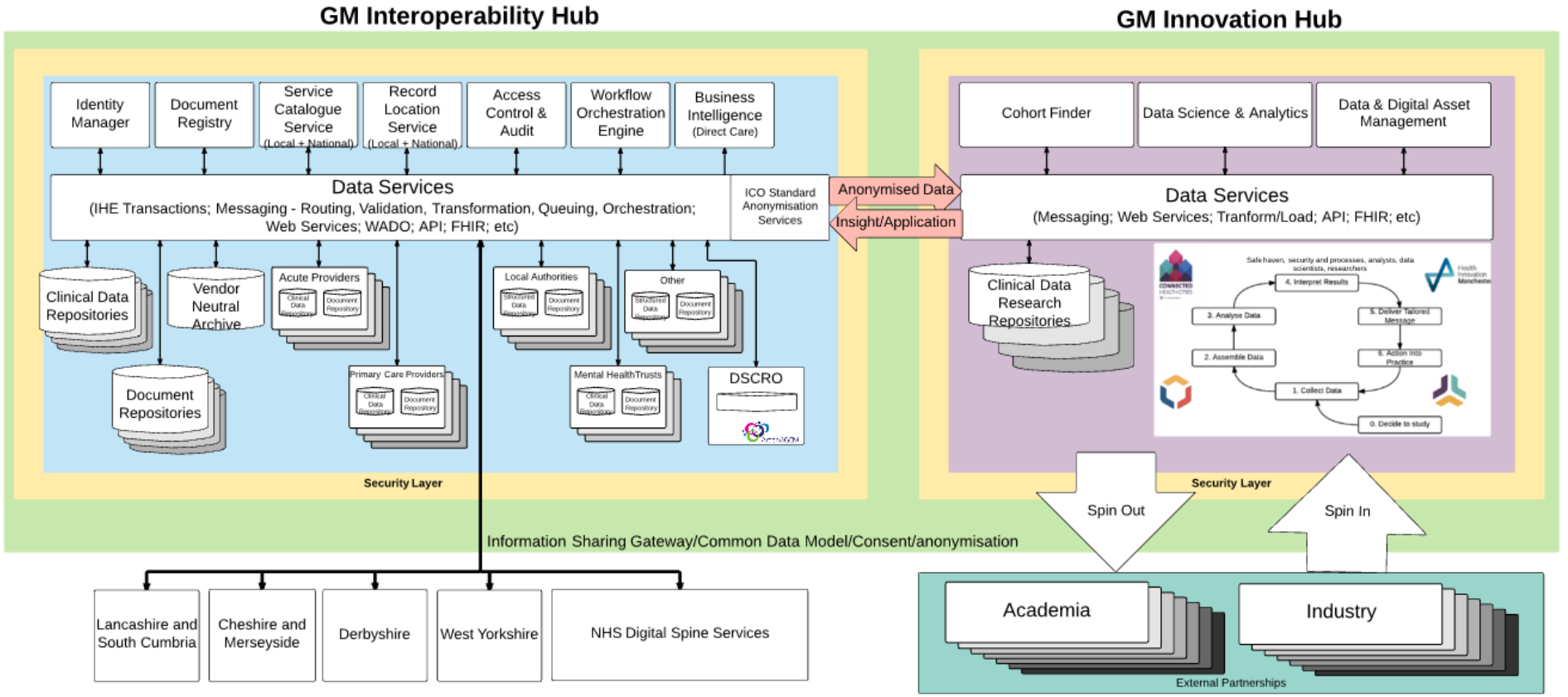
Aligned Interoperability and Innovation Hubs



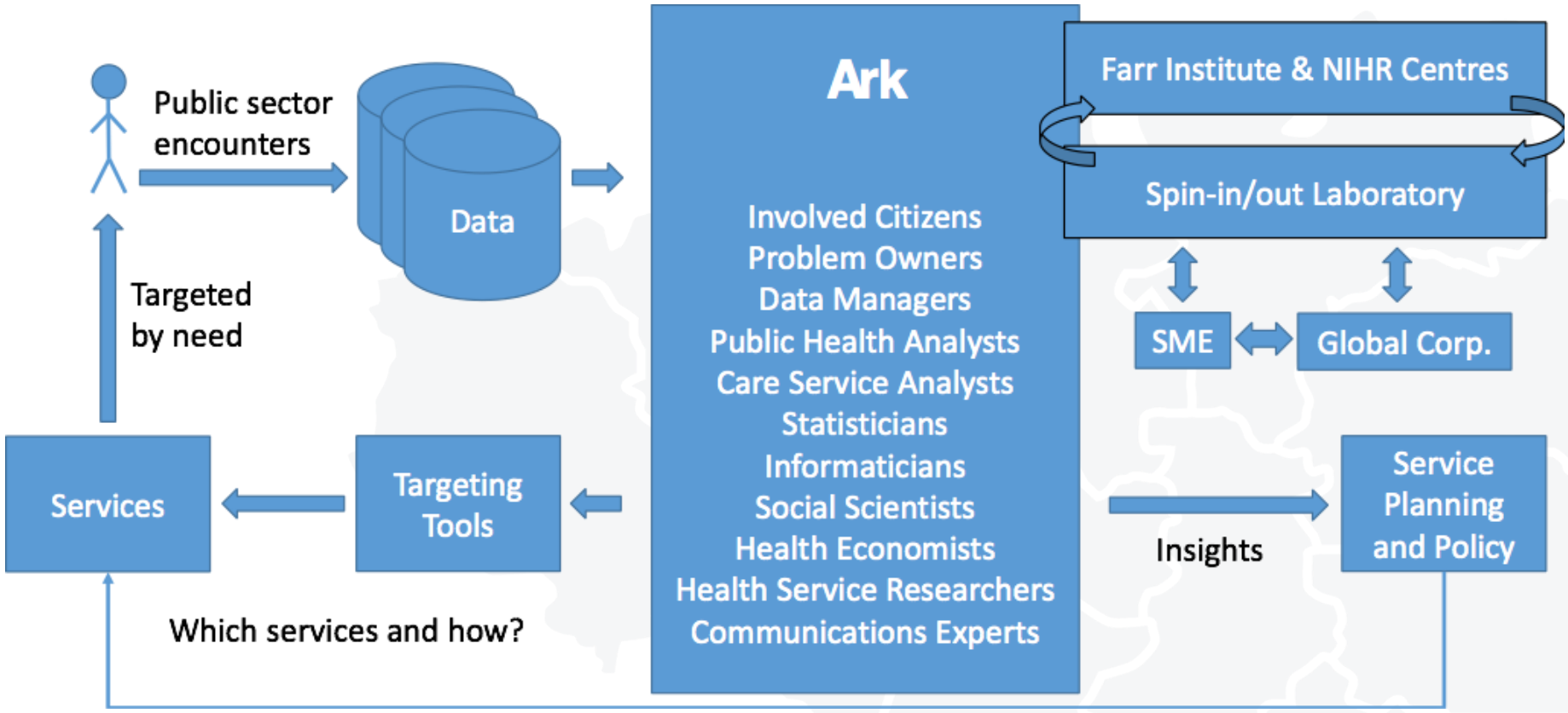
Health Intelligence Strategy/HInM Strategy

Taking Charge/Population Health Strategy/Pharma MOU/Locality strategies

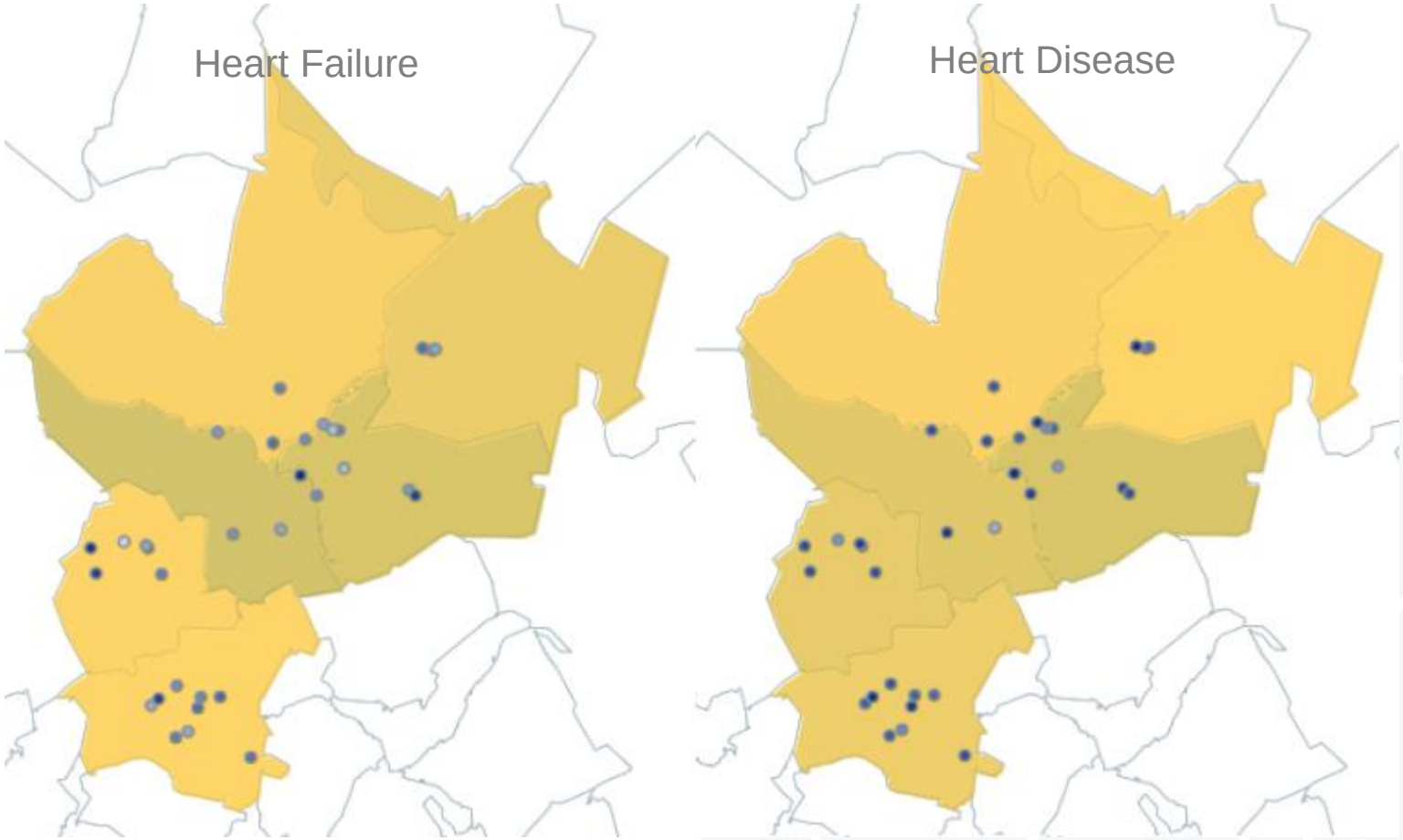
National Public Sector/Health & Social Care/Research and Industrial Strategies

Health Innovation Manchester

Connected Health City: Ark-enhanced Information Flows

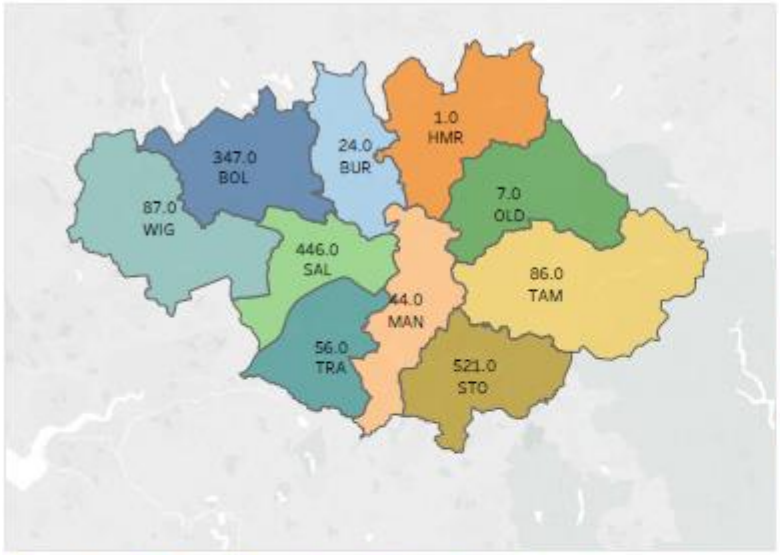


GM Wide Understanding



Driving targeted interventions with BI Strategic View

Last 7 days 4hr Breaches - Click on map to filter all data



BOL BUR HMR MAN OLD SAL STO TAM TRA WIG

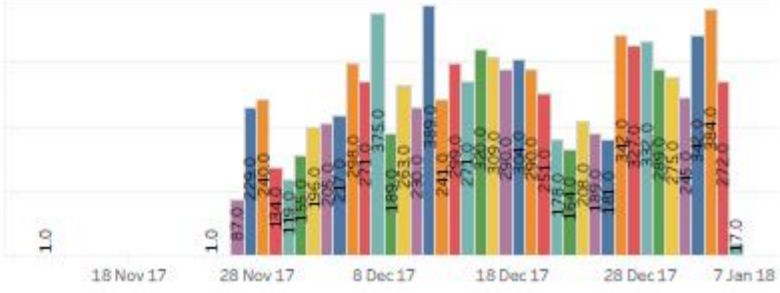
Hour and Day of arrival view for 4hr Breaches for last 6 weeks

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
0	61.0	70.0	65.0	67.0	44.0	76.0	61.0
1	50.0	53.0	41.0	47.0	41.0	69.0	54.0
2	44.0	42.0	42.0	30.0	30.0	37.0	26.0
3	46.0	56.0	37.0	30.0	32.0	46.0	34.0
4	47.0	44.0	44.0	36.0	28.0	31.0	36.0
5	37.0	39.0	36.0	28.0	40.0	30.0	33.0
6	19.0	23.0	23.0	26.0	16.0	28.0	14.0
7	29.0	25.0	19.0	18.0	18.0	19.0	16.0
8	47.0	29.0	37.0	23.0	32.0	40.0	23.0
9	50.0	56.0	47.0	47.0	33.0	42.0	42.0
10	72.0	58.0	65.0	54.0	37.0	51.0	40.0
11	95.0	104.0	79.0	54.0	36.0	50.0	48.0
12	87.0	103.0	77.0	62.0	49.0	58.0	48.0
13	84.0	94.0	84.0	49.0	56.0	63.0	61.0
14	85.0	73.0	69.0	43.0	43.0	51.0	44.0
15	80.0	92.0	83.0	74.0	59.0	38.0	67.0
16	79.0	98.0	76.0	55.0	72.0	62.0	72.0
17	100.0	109.0	115.0	84.0	77.0	61.0	73.0
18	73.0	103.0	82.0	87.0	70.0	71.0	70.0
19	99.0	102.0	78.0	67.0	57.0	61.0	56.0
20	108.0	119.0	101.0	94.0	60.0	61.0	78.0
21	91.0	101.0	102.0	83.0	61.0	70.0	93.0
22	99.0	124.0	85.0	61.0	68.0	53.0	85.0
23	80.0	78.0	67.0	73.0	59.0	84.0	72.0

Last 7 days data table completed 4hr Breaches

	29-Dec	30-Dec	31-Dec	01-Jan	02-Jan	03-Jan	04-Jan
No Arrived	861	869	812	872	1,219	1,100	81
No Triaged	836	782	750	794	1,097	1,039	76
No Treated	769	687	691	729	972	900	69
No Admitted	202	166	190	186	281	254	11
No Discharged	774	788	707	789	1,116	1,001	75

Daily Completed 4hr Breaches for last 6 weeks



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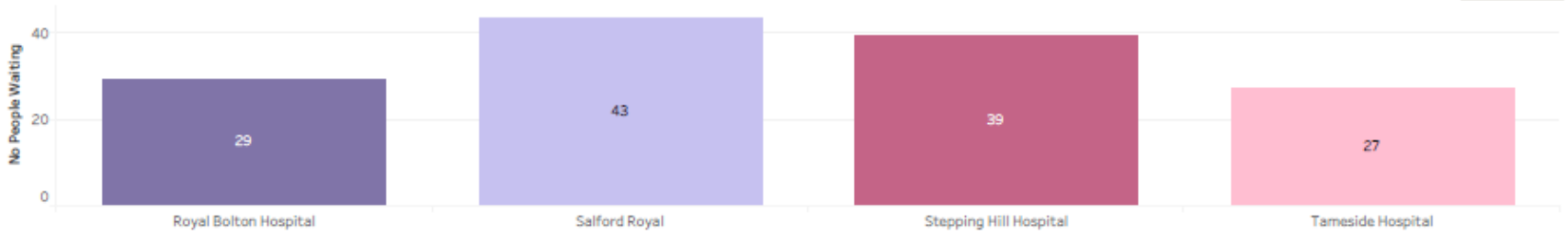
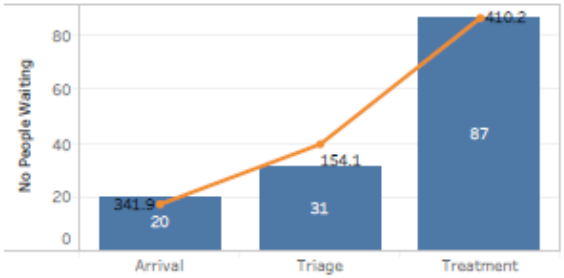
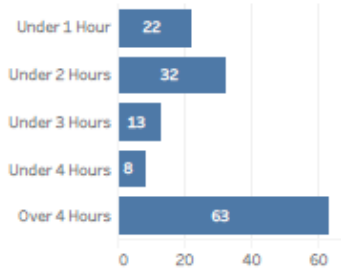
Driving targeted interventions with BI Tactical View



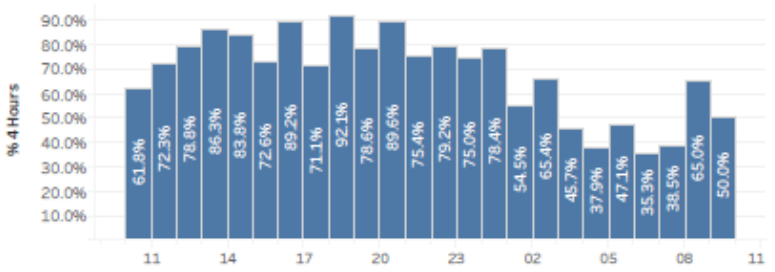
Waiters by Stage



Current Waiters by Wait Band



Last 24 Hours - 4 Hour Waited by Hour



Performance Today

No Arrived	182.0
No Admitted	11.0
% 4 Hours	90.7%
No Four Hour Breaches	17.0

Today's Arrivals by Hour

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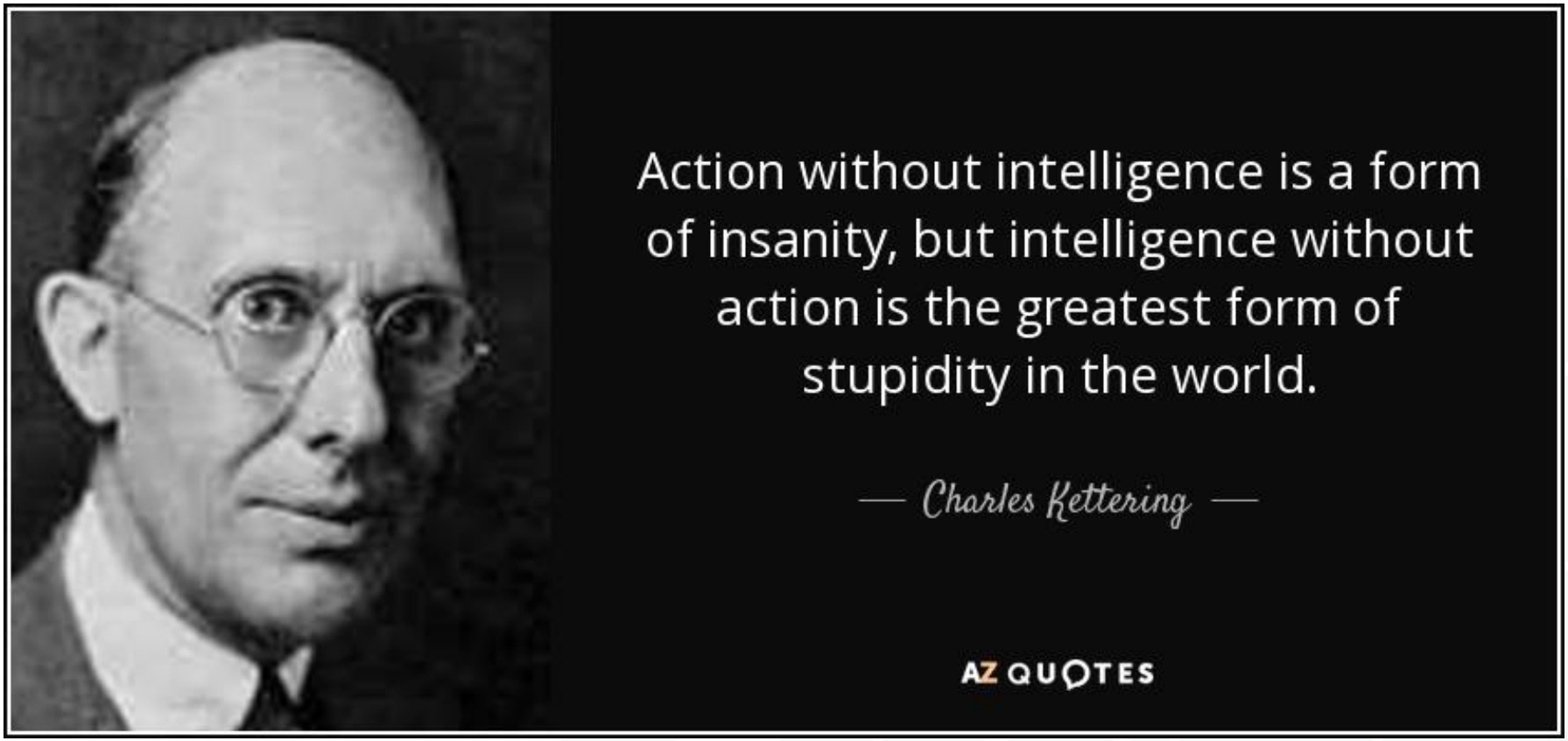
Areas of exploration

- Expansion of Urgent Care dataset
- Predictive models for Urgent Care
- Machine learning with the Universities
- Manchester CCG Pilot looking at whole system joined up data
- GM Elective Care Tool
- Mental Health Inpatients (almost live)
- Hive working to produce single GM views

The journey so far



Our challenge is to build a unified intelligence function that is neither insane nor stupid!

Greater Manchester Health and Social Care Partnership

Any questions?

Greater Manchester Health and Social Care Partnership

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NHS in Greater Manchester

For further detail go to:

www.gmhsc.org.uk

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