# KEYNOTE The key role of health data in reducing inequalities and improving patient and population care

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Chief Medical Officer, Deputy CEO and Consultant Cardiologist

**University Hospitals Conventry and Warwickshire NHS Trust**

# Getting to the HEARRT of Inequalities


Prof Kiran Patel
Cardiologist, Chief Medical Officer, Deputy CEO

# Inequalities in  health are worse then inequalities in illness

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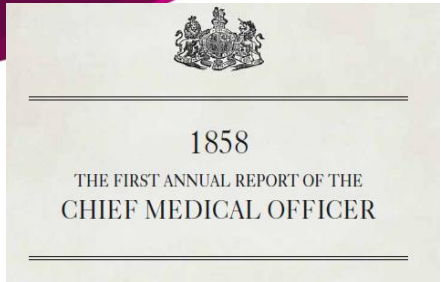
- Unfair and avoidable disparities in health based between different groups within society.

  - Social class
  - Race
  - Gender

Dahlgren G, Whitehead M (1993)




- 1980 Black report
- 1998 Acheson report 39 recommendations
- 1999 Saving lives, our healthier nation
- 2000 NHS Plan
- 2002 Cross cutting review
- 2003 Tackling Health Inequalities: A programme for action
- 2004 Wanless report
- 2004 Choosing Health
- 2006 Health Challenge England
- 2006 Our health, our care, our say
- 2008 Health Inequalities: progress and next steps
- 2009 Tackling health inequalities: 10 yrs on report
- 2010 Marmot review

# Markers of inequality

- ACEs
- Qualifications and educational attainment
- Self harm admissions
- Drug abuse
- Alcohol abuse

- Loneliness
- Mental wellbeing
- Antidepressants

- Physical health issues

- Work
  - increased hours
  - zero hours
  - higher sickness rates
  - Lower productivity

Education : a powerful weapon against HI (Harry Burns, CMO for Scotland 2005)

# HI for the most deprived

- Access inequity
    - Elective
    - Urgent e.g. dental, CVD
- Delayed diagnoses
    - Cancer
    - DM…
- Disruption of care

# Bravery:  in action or inaction?

- Centralisation vs devolution
    - Power to fund and deliver public services
    - e.g. Greater Manchester had an impact on HI with devolution
    - BUT ; USA has also devolved but has greater HI!

- Austerity – hits the vulnerable hardest

- Market regulation
    - Income from tobacco & fast food challenges public health
    - Liberalism vs nanny state

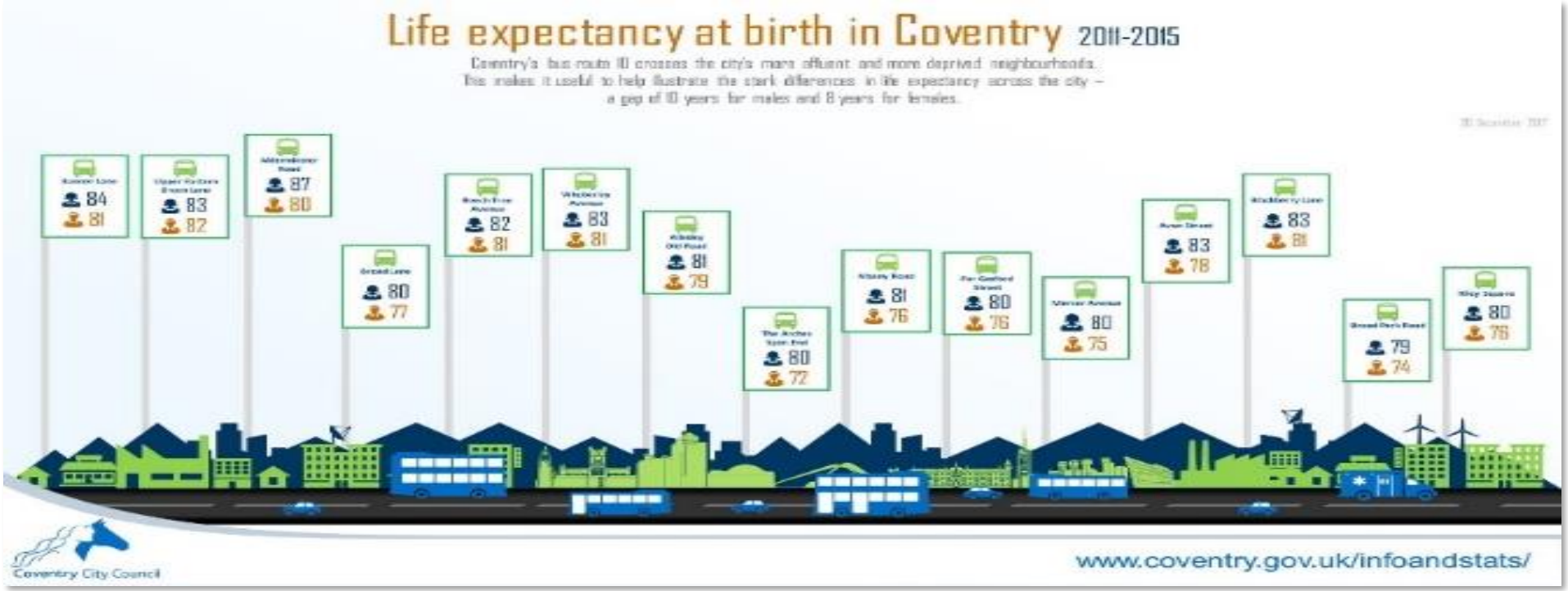
- Accountability deficit

# How to think about HI

- See health as an asset
    - Level up health and prosperity……within a generation
- Seeing illness as a cost in isolation…….a failure of H&SC or civil society?
- Healthy places
    - Access to green space
    - Access to services
    - Crime
    - Economic and working conditions
    - Living conditions

# The challenge

- Combatting health inequalities at a local level
- The role of integrated care systems
- Prevention initiatives
- Addressing risk factors for poor health outcomes
- Use of population health methods
- Accessibility of local services


Life expectancy at birth in Coventry 2011-2015
Coventry's bus route 10 crosses the city's more affluent and more deprived neighbourhoods. This makes it useful to help illustrate the stark differences in life expectancy across the city – a gap of 10 years for males and 8 years for females.
84 81
83 82
87 80
80 77
82 81
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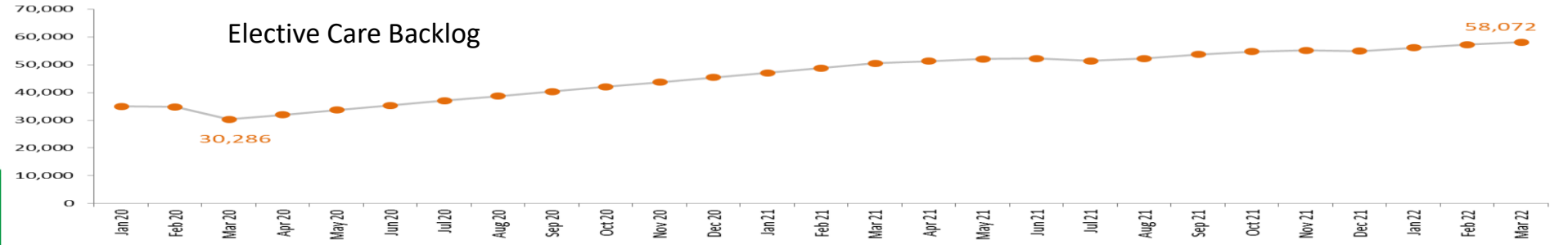
Coventry City Council
www.coventry.gov.uk/infoandstats/


Elective Care Backlog
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
30,286
58,072
Jan 20
Feb 20
Mar 20
Apr 20
May 20
Jun 20
Jul 20
Aug 20
Sep 20
Oct 20
Nov 20
Dec 20
Jan 21
Feb 21
Mar 21
Apr 21
May 21
Jun 21
Jul 21
Aug 21
Sep 21
Oct 21
Nov 21
Dec 21
Jan 22
Feb 22
Mar 22

# NHS Priority: to reduce health inequalities

1. **Restore** NHS services inclusively
2. **Mitigate** digital exclusion
3. **Ensure** datasets are complete and timely
4. **Accelerate** preventative programmes that proactively engage those at greatest risk of poor health outcomes
5. **Strengthen** leadership and accountability


EDITORIALS

Check for updates

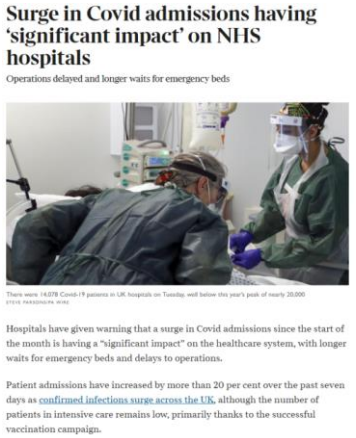
Ensuring an equitable recovery for the NHS

Health leaders must seize this historic opportunity to level up

Kiran Patel,[1] Rachel Chapman,[1] Raj Gill,[2] Justine Richards[3]

The effect of the pandemic on non-covid related healthcare is only now starting to be felt by patients and healthcare systems. At least 4.5 million people are estimated to be waiting for elective care in the

In more affluent areas.[8] NHS waiting lists must swell with more needful patients, even at a time of substantial backlog, if we are to reduce inequalities. We must not accept a system that increases waiting


Surge in Covid admissions having 'significant impact' on NHS hospitals

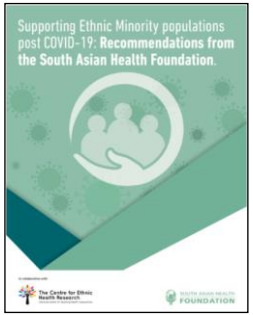
Operations delayed and longer waits for emergency beds

There were 14,078 Covid-19 patients in UK hospitals on Tuesday, well below this year's peak of nearly 20,000

STEVE PARSONS/PA WIRE

Hospitals have given warning that a surge in Covid admissions since the start of the month is having a "significant impact" on the healthcare system, with longer waits for emergency beds and delays to operations.

Patient admissions have increased by more than 20 per cent over the past seven days as confirmed infections surge across the UK, although the number of patients in intensive care remains low, primarily thanks to the successful vaccination campaign.



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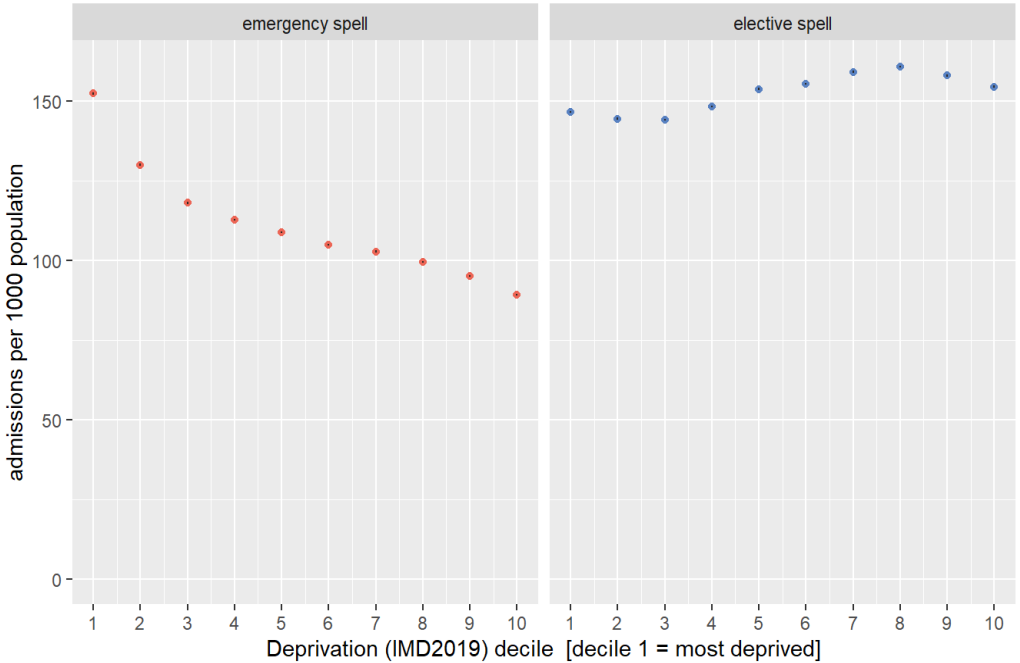
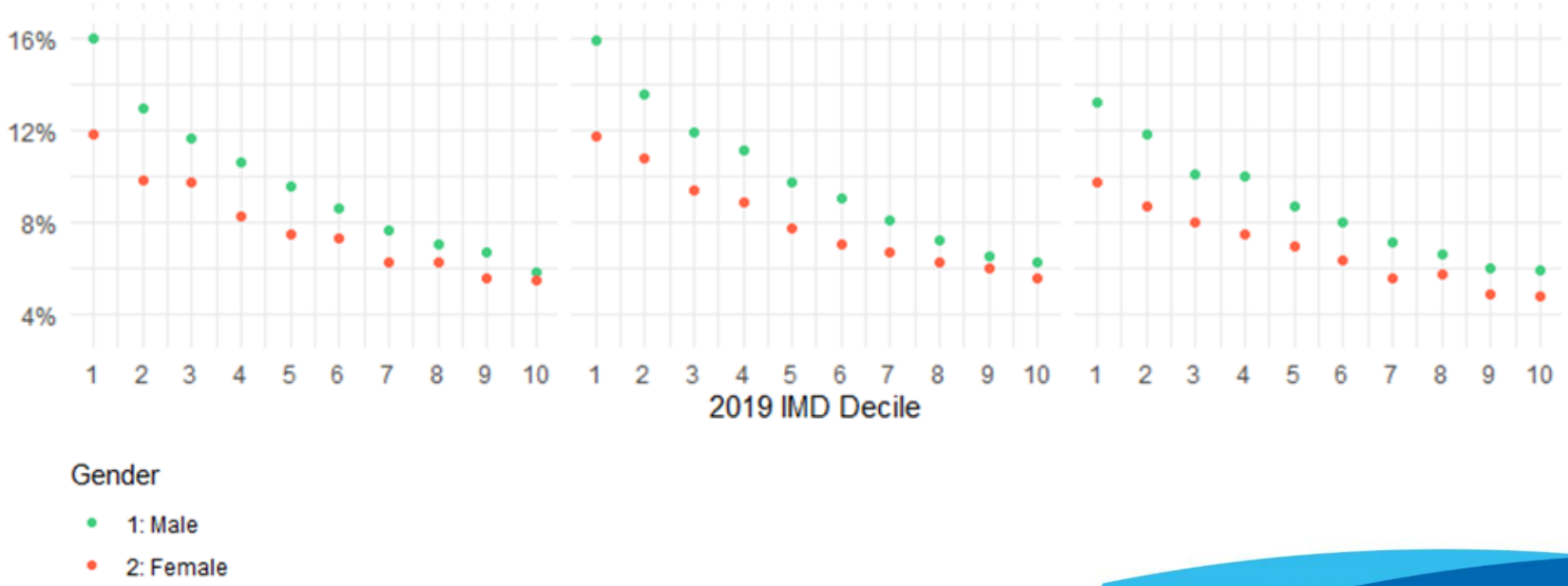
# Elective and Emergency Admissions by Deprivation

## Crude rate per 1000 population – England 2018



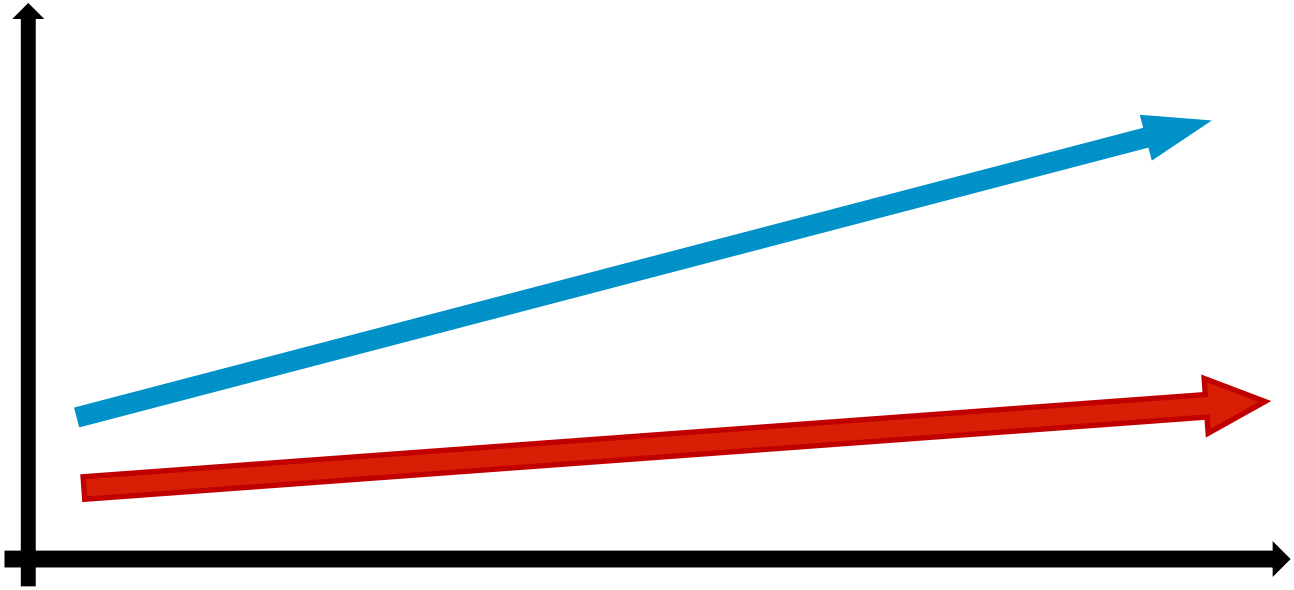

*Spilsbury et al, Midlands and Lancs CSU, 2016*

# NHS service inequalities – OP DNAs




Analysis done by Coventry and Warwickshire CCG BI Team, 2022

# Inequalities in Health



# Guarding against inequality throughout the care pathway


**Who are we missing?**
- Proactive case finding
- Early referral

**How do we ensure timely access?**
- Prioritisation of waiting lists
- Active waiting
- Poverty proofing
- DNA management

**Which patients are more likely to have poor experience/outcomes?**
- Lifestyle referrals
- Social prescribing
- Wider determinants
- Health literacy
- Prevention in all pathways

# Restoration using PHM

1. How do we ensure that restoration **doesn't increase** inequalities?

2. How can restoration **help** to reduce inequalities?

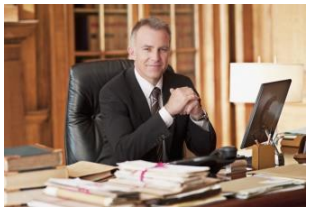
**Delivering further value:**

- Prevention at scale
- Urgent and emergency care: reduced demand

**Voluntary health screening tool**
accessed by QR code to help identify how University Hospitals Coventry and Warwickshire NHS Trust can support your health and well being.

# The Problem: Waiting lists fuel inequality

## William from Warwick



GP at first symptoms
No co-morbidities
Prehab

**Waiting List Time 18 weeks**

WFH + supported return
Full recovery
No impact on family

## Norman from Nuneaton

GP when can't work
Smoker, diabetes, HTN
Can't attend prehab

**Waiting List Time 18 weeks**

Late stage surgery
Poor recovery
Loses job
Depression
Increased healthcare cost

# Additional Factors Impacting Healthcare Outcomes

Within the existing categories are numerous patients, with many conflicting underlying health issues, and a range of social and demographic indicators including socio economic status, occupation, geographical location and protected characteristics

| Current Factors for Booking Order | | | |
|---|---|---|---|
| Clinical Priority | | Time on the Waiting List | |
| **Additional Factors Impacting Healthcare** | | | |
| Patients Age | Underlying Health Issues | Readmission Rates | Deprivation Score |
| Emergency Admissions | Cancer Diagnosis or Referral | Breaches to the Clinical Priority | Shielded Patient |
| Mental Health Issues | Previous Cancellations | Previous DNAs impacting Wait | Many more... |

Everybody receives NHS Constitutional Standards

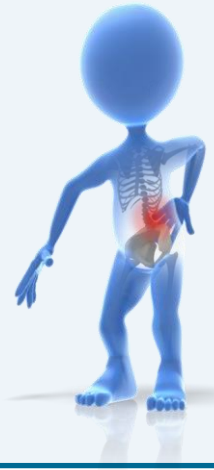
# What information do we have now?

Avatar – Trauma & Orthopaedics

## Patient A

- Waiting for Total Prosthetic Replacement of Knee Joint
- Priority 3
- Waited 15 Weeks

## Patient B



- Waiting for Total Prosthetic Replacement of Knee Joint
- Priority 3
- Waited 47 Weeks

**In this example, we would book Patient B, as they have waited longer**

# What additional information can the tool give us?

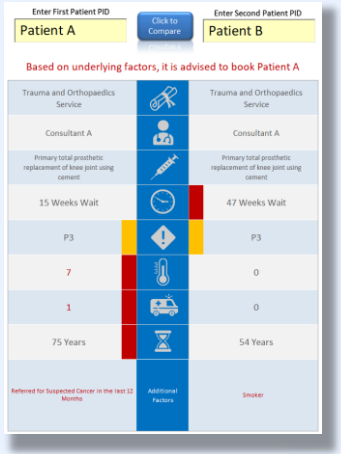
Avatar – Trauma & Orthopaedics

## Patient A

- 75 Years Old
- 7 Comorbidities
- Has been referred separately to another service for suspected Cancer
- Recently came into A&E after a fall
- Has breached their clinical priority
- Lives in a deprived area

## Patient B

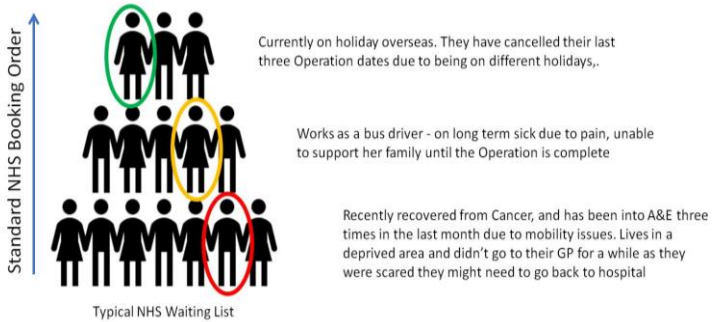
- 54 Years Old
- Smoker




## Now who ?

# Patients Waiting for a Hip Replacement

## Clinical Priority Level 3


## Waiting List Generator

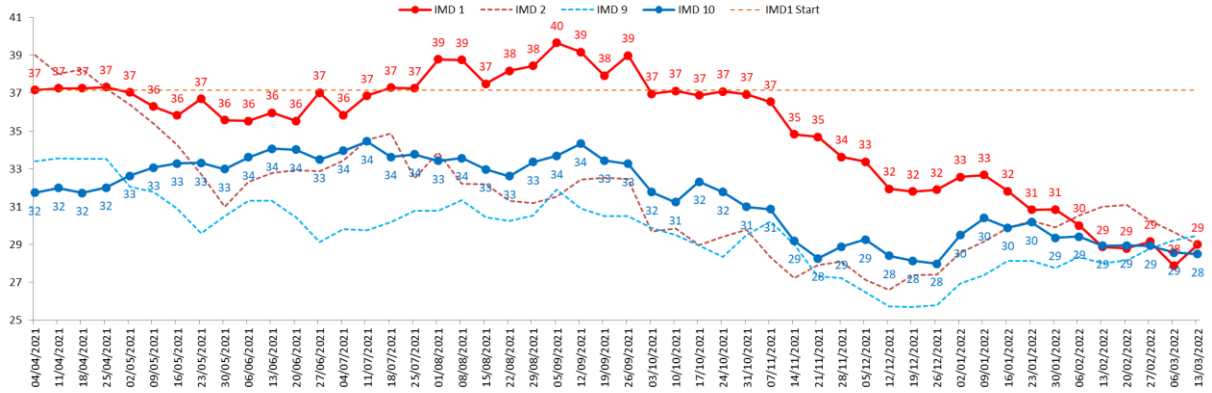
Using the weighting system within the Priority Tool we can apply the same process for comparing two patients to the entire Waiting List.
This is done on a Specialty, or even Procedure basis, to ensure a like for like comparison

| New Order | Original Order | Patient Number | Wait Time | OPCS Code | PrimaryProcedureDesc |
|---|---|---|---|---|---|
| 1 | 200 | Patient0200 | 56.7 | W401 | Primary total prosthetic replacement of kn |
| 2 | 342 | Patient0342 | 36.3 | W371 | Primary total prosthetic replacement of hip |
| 3 | 66 | Patient066 | 23.7 | W401 | Primary total prosthetic replacement of kn |
| 4 | 13 | Patient013 | 70.9 | W403 | Revision of total prosthetic replacement of |
| 5 | 38 | Patient038 | 36.4 | W401 | Primary total prosthetic replacement of kn |
| 6 | 54 | Patient054 | 28.6 | W371 | Primary total prosthetic replacement of hip |
| 7 | 100 | Patient0100 | 12.4 | W371 | Primary total prosthetic replacement of hip |
| 8 | 119 | Patient0119 | 90.7 | W401 | Primary total prosthetic replacement of kn |
| 9 | 124 | Patient0124 | 87.3 | W401 | Primary total prosthetic replacement of kn |
| 10 | 126 | Patient0126 | 85.1 | W401 | Primary total prosthetic replacement of kn |

Here, this patient was original number 200 on the list. Based on their underlying conditions, they are now next to be booked

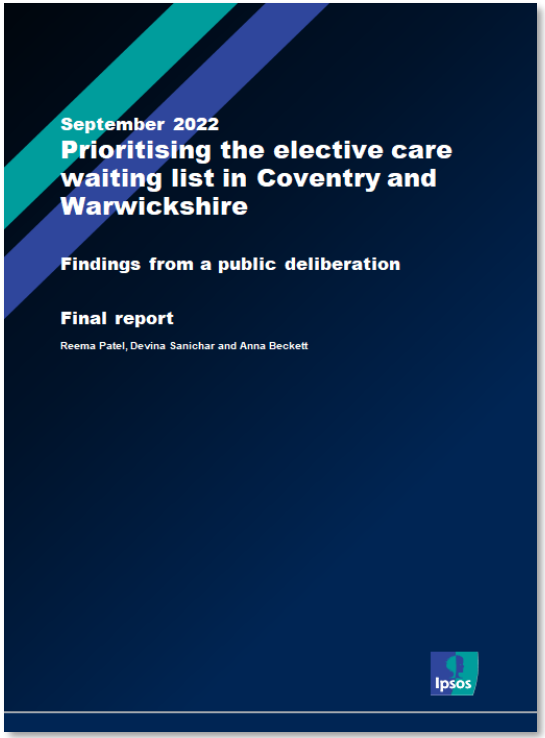
# Trauma & Orthopaedics

## Inpatients – T&O Average Wait Time (Weeks) – narrowing the gap




For T&O the most deprived (IMD 1) have reduced from 37 weeks to 29 weeks wait on average (a reduction of 8 weeks). During the same period the least deprived (IMD 10) reduced from 32 weeks to 28 weeks – a reduction of 4 weeks.

# Public Engagement: IPSOS




- “My dad needed a knee replacement, didn’t get it, fell it and broke his hip. Has fallen again and broken his ribs. Has had pneumonia four times. If he had his knee done, it wouldn’t have happened.”
- “All of these people should have the same right to be assisted at the same time. None of them are more important than others. Their condition should be the only factor, not social aspects.”
- “If people are suffering more than others, those people should go first. You are reducing suffering for those people. I certainly see advantages.”
- “We’re trying to solve problems that aren’t medical ones in a way. We’re looking at balancing out people who are living in deprived areas and things like that and is that for the NHS to do or is it for the government to do?”
- “Life isn't fair, but I think it is a moral obligation as a human being to even out those odds where necessary, if possible.”

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# Adoption and Diffusion at Scale

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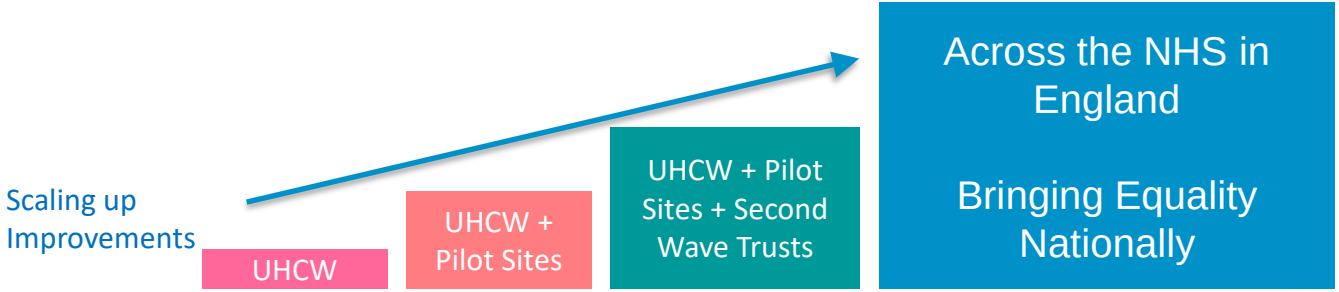
# National Scale up of the HEARTT System

- Pipeline of 30 NHS Trusts to potentially implementing HEARTT tool across trusts and ICSs

- Potential to contribute data on Deprivation and Wait Times to a central NHS dataset
- Benchmarking across Trusts, systems and populations



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# The journey ahead

- Reducing inequalities further – is it the end of RTT as we know it?
- Agile waiting: GPs and patients
- Opening the debate on social value judgements – employment (NHS staff), career status, educational impact

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# In the midst of every crisis, lies great opportunity: *Albert Einstein*


*Acknowledgments to the HEARTT team at UHCW Prof Kiran Patel, Daniel Hayes, Dr Rachel Chapman, Paul Lipscombe, Prof Harpal Randheva*

# Thank you


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# INTELLIGENT HEALTH UK 2023

## Breaking down the barriers between tech and healthcare