NHS ‘Peak Treatment’ is a National Emergency

Dominic Harrison
Director of Public Health and Wellbeing Blackburn with Darwen Council
Visiting Professor University of Central Lancashire
@BWDDPH
It was noted, however, that NHS organisations are still held to account solely for NHS targets and not population outcomes. As Jon Rouse, outgoing Chief Officer of the Greater Manchester Health and Social Care Partnership, states in various parts of his recent memorial lecture (please see below):

And yet across the many formal assurance meetings I have led.....with NHS England, I have not been held to account for population outcomes, not asked about mortality and morbidity...but for NHS constitutional waiting time standards including whether people are waiting too long in A&E. When we have walked into the room, it sometimes felt that we have to leave our mission and purpose at door. This needs to change, not just for GM, but the whole of the country.
NHS Peak Treatment

• The NHS is rapidly approaching the point of ‘Peak Treatment’ – the point at which more resources for more treatment is not going to bring more health for the residents of the UK.

• This year, for many preventable conditions, more people will be made ill each year than the NHS can either afford to, or manage to, treat in that year.

• This situation meets the three criteria for being classified as an emergency;
  • it poses an immediate risk to health and life,
  • there is a high possibility of escalation,
  • urgent action is required to prevent a worsening of the situation.
The problem is that the NHS operating model remains stubbornly focussed on the ‘detection and management’ of disease when it should be rapidly shifting investment to ‘predicting and preventing’ disease.

For this reason, the current NHS investment strategy and operating model is now no longer able to deliver sustained and cost effective health improvements for the UK population.

NHS Investment needs to ‘shift left’- moving to a population health strategy
Shifting the whole population into a lower risk category benefits more individuals than shifting high risk individuals into a lower risk category.

Population approach: encourage everyone to change, shifting the entire distribution.

Risk reduction approach: Move high risk individuals into normal range.

Most NHS Investment stuck here (Type 2 Diabetes!)

Kings Fund: Re-designing the system on a population health model
(Key= managing incidence as well as managing prevalence)
Last year, ONS reported that in 2017, approximately 23% of all deaths in the UK were considered avoidable (141,313 deaths out of 607,172)

This means that either these deaths were preventable in the first place or they were amenable to more effective (usually earlier) NHS action

Source:
* ONS (2019) Avoidable Mortality in the UK 2017
  https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/avoidablemortalityinenglandandwales/2017#main-points
Blackburn with Darwen: **Avoidable Mortality** – Preventable & Amenable

**Definitions**
- **Preventable deaths** are those that could be avoided by public health interventions, to prevent the condition occurring in the first place.
- **Amenable deaths** are those that could be avoided through timely and effective healthcare, once the condition has developed.
- **Avoidable deaths** are those that are either preventable or amenable.

In Blackburn with Darwen, during the three years from 2015 to 2017, there were 1181 ‘Avoidable’ deaths (out of 3887 deaths altogether). 980 of them were preventable and 677 were amenable, but that comes to 1657. Thus 476 of the deaths must have been **both preventable and amenable** (Figure 1):

**Figure 1 - Avoidable Deaths in Blackburn with Darwen, 2015-17**

- **Preventable**: 980
  - Deaths that could be avoided by public health interventions
- **Amenable**: 677
  - Deaths that could be avoided through timely & effective healthcare
- **Avoidable**: 1181

It is important to be clear that nobody adjudicates on whether each individual adult death in Blackburn with Darwen was preventable and/or amenable or not.

Instead, the figures are based on an ONS list of **conditions**, which experts have agreed should not be causing deaths at particular ages. For instance, according to the list, nobody should be dying from cervical cancer aged 0-74, because it is both preventable and amenable to treatment. And nobody should be dying from Epilepsy aged 0-74, but that is only because death can be avoided through healthcare, not because the condition is preventable.
Avoidable Mortality & **Health Inequality**

**Socio-economic inequalities**

Across England, avoidable mortality shows a strong deprivation gradient. Rates are 4.5 times higher (male) and 3.9 times higher (female) in the most deprived tenth of areas, as compared with the least deprived.³


- These ‘risk factors’ (smoking, exercise, diet etc) themselves arise from known and modifiable social and economic risk conditions.
- They have been exacerbated by increasing social inequality and escalating disinvestment in wider prevention services outside of the NHS.
- This disinvestment, particularly for Local Government services, has been driven by central government austerity over the past decade.
This paper focuses on the social impacts associated with recession

We are now entering what the Audit Commission calls the ‘social wave’ of recession:

**Wave 1: Economic.** A relatively short period where economic output declines, unemployment rises quickly, and real income falls.

**Wave 2: Social.** A longer period in which output growth returns but job losses continue, bringing with it increasing social problems, such as housing, health and domestic problems.

**Wave 3: Unequal recovery.** Recovery occurs when the economy is expanding and unemployment has passed its peak. Investment and economic development return, but not all areas benefit. Some continue to decline, while others bounce back.

The UK is currently on the cusp of entering wave 2 of the recession.

This report examines the social impacts that have followed previous recessions to capture lessons from the past. It also brings together emerging intelligence on the social pressures local areas face in the current recession.

Source: Audit Commission (2009). When it comes to the Crunch...How councils are responding to the recession.
Local Authority Service cuts -152 upper-tier authorities in England
Between 2009/10 to 2016-17.

From: The depths of the cuts: the uneven geography of local government austerity
Cambridge J Regions Econ Soc. Published online October 09, 2018. doi:10.1093/cjres/rsy019
Cambridge J Regions Econ Soc | © The Author(s) 2018. Published by Oxford University Press on behalf of the Cambridge Political Economy Society. All rights reserved. For permissions, please email: journals.permissions@oup.com
This article is published and distributed under the terms of the Oxford University Press, Standard Journals Publication Model (https://academic.oup.com/journals/pages/open_access/funder_policies/chorus/standard_publication_model)
Local government contributions to prevention and population health
Social Determinants of health care costs

Figure 2 Social determinants of health care costs

- Lacks social support: 10% higher costs
- Lacks a primary care physician: 12% higher costs
- Has physical limitations: 9% higher costs
- Unstable housing situation: Reported by 16%
- Mental health diagnosis: 38% higher costs
- Substance abuse: 89% higher costs
- Financial distress: 25% higher costs

Public Health Capacity has been cut by about 10% between 2015-2019

“The ring-fenced public health budget has faced hundreds of millions of pounds in cuts since 2014/15. Our calculations, using the latest local government data, show an estimated £850 million decline in net expenditure in England since 2014

<table>
<thead>
<tr>
<th>Services</th>
<th>Change in Expenditure (£mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual health services</td>
<td>↓ 196.4</td>
</tr>
<tr>
<td>National child measurement programme</td>
<td>↑ 0.6</td>
</tr>
<tr>
<td>Health check, protection and advice services</td>
<td>↓ 72.0</td>
</tr>
<tr>
<td>Obesity services</td>
<td>↓ 26.2</td>
</tr>
<tr>
<td>Drug and alcohol services</td>
<td>↓ 260.9</td>
</tr>
<tr>
<td>Stop smoking and tobacco control</td>
<td>↓ 85.1</td>
</tr>
<tr>
<td>Physical activity</td>
<td>↑ 26.7</td>
</tr>
<tr>
<td>Public health programmes 5-19 years</td>
<td>↓ 37.9</td>
</tr>
<tr>
<td>Misc. public health services</td>
<td>↓ 220.4</td>
</tr>
<tr>
<td>Total Change</td>
<td>↓ 871.6</td>
</tr>
</tbody>
</table>

Source: Author’s analysis (Ministry of Housing, Communities and Local Government (MHCLG), 2019)

IPPR : (Nov; 2019)
“I’ve set out my 3 early priorities for the NHS: prevention, technology and supporting the workforce. Primary care is central to all 3. The future of the NHS rests on getting primary care right, and on shifting our focus so that we keep people out of secondary care.”

Delivered on: 18 October 2018 (Transcript of the speech, exactly as it was delivered)
BwD & Pennine Lancashire: M & F Life Expectancy

Male Life Expectancy
Figure 1 shows the trend in male life expectancy for each district (with England as a comparator), and the latest 2015-17 figures in years.

Ribble Valley's male life expectancy in 2015-17 is significantly higher (better) than England, but all the other districts are significantly lower than average.

Figure 1: Male Life Expectancy at Birth

Figure 2 shows how each district's ranking has varied over the years, and where it stands now, relative to the 324 lower-tier authorities in England:

Female Life Expectancy
Figure 1 shows the trend in female life expectancy for each district (with England as a comparator), and the latest 2015-17 figures in years.

Ribble Valley's female life expectancy in 2015-17 is similar to England's, but all the other districts are significantly lower (worse) than average.

Figure 1 - Female Life Expectancy at Birth

Figure 2 shows how each district's ranking has varied over the years, and where it stands now, relative to the 324 lower-tier authorities in England:
According to the British Medical Association (BMA), preventable ill-health now accounts for

• an estimated **50%** of all GP appointments,
• **64%** of outpatient appointments
• **70%** of all inpatient bed days.
• The BMA argue that the demand on health (care) services could be cut by as much as **40%** with the right investment in services to reduce smoking, alcohol consumption, physical inactivity and diet.

BMA Framework for Preventing physical and Mental Ill Health

Preventing physical and mental ill-health

- Addressing the social determinants that influence health
- Prioritising prevention through the health service
- Increased and sustained funding for public health
- Effective regulation to tackle key drivers of ill-health

Outcomes of preventing physical and mental ill-health

- Increasing healthy life expectancy
- Reducing health inequalities
- Reducing demand for healthcare

The key preventable conditions driving $\text{avoidable NHS demand}$ of some of the biggest rises in demand for NHS treatment are:

- obesity,
- drugs and alcohol,
- type 2 diabetes,
- musculoskeletal disease,
- frailty and
- mental ill health.

- The NHS responds to these primarily as diseases requiring treatment but they are better viewed as ‘social and economic syndromes’ whose causes and prevention require multiple social medications outside of the health care system.
Yet despite the known non-clinical factors driving rising incidence of many of these problems, the capacity of the NHS and wider societal governance systems to predict and prevent them is hopelessly under-developed—both conceptually and practically.

This is now also a ‘conceptual emergency’.

The NHS claims it cannot significantly increase its funding for prevention outside of clinical services because there are so many people ill now, requiring immediate clinical treatment.

But the NHS is requiring more and more injections of cash to meet escalating and avoidable demand and the return on investment as we reach ‘peak treatment’ is rapidly diminishing.

The NHS is overwhelmed because of its own poor investment strategy. It is managing demand for the treatment of avoidable and preventable disease with yet more treatment.

This short term ‘pragmatic fundamentalism’ inevitably results in a strategic failure to improve health as we try to treat those who are now ill but fail to prevent the larger number of those who certainly will be ill and need treatment very soon.
In 2011, the United Nations set key targets to reach by 2025 - to reduce the risk of premature non communicable disease & death by 25% by 2025.

Key Facts

11.9 million people in the UK – that’s 1 in 4 adults – are at increased risk of developing Type 2 diabetes due to being overweight or obese. Obesity is the most potent risk factor for Type 2 diabetes. It accounts for 80–85% of the overall risk of developing Type 2 diabetes.

There are an estimated 7 million people living with cardiovascular disease in the UK – 3.5 million men and 3.5 million women. An ageing and growing population and improved survival rates from cardiovascular events could see numbers rise still further.

In the UK, 10 million people live with long-term painful conditions of their joints, spine, bones or muscles. Each year 20% of the population sees a GP about a musculoskeletal problem.

Two thirds of deaths from asthma attacks are preventable.

Smoking is responsible for over 80% of all deaths from lung cancer and Chronic Obstructive Pulmonary Disease (COPD).

Walking for a mile at a moderate pace each day could reduce prostate cancer patients’ risk of dying from the disease by 30%.

Modifiable risk factors account for over half of the disease burden in later life.

Up to half of all cancers could be prevented by changes in lifestyle behaviours.

Up to 30% of cases of Alzheimer’s disease are attributable to modifiable risk factors.

If every woman in the UK was regularly physically active, 9,000 fewer women would develop breast cancer each year.

80% of strokes are preventable.
About 50% of mental illness in adult life (excluding dementia) starts before age 15 and 75% by age 18.

For children and young people, 11.2 per cent of the 5 to 15 population has a mental health condition—up from 9.6 per cent in 2004.

The prevalence of mental health conditions rises with age, up to 16.9 per cent for 17 to 19-year olds.

Referrals to Child and Adolescent Mental Health services (CAMHS) have increased by around 26 per cent in five years according to recent data.

This is not ‘fixing the problem’, as the number of new cases rises faster than current cases can be treated.

This now results in only a quarter of school-age children with a diagnosable mental health problem receiving any intervention at all by the NHS, despite most parents of these children seeking professional advice.

People in contact with services

There are also figures on the population’s rate of contact with specialist mental health services (i.e. more than just IAPT). The PHE profile regards these as a service use indicator, not a prevalence indicator. Error! Bookmark not defined. However they are likely to reflect variation in the need for services as well as the provision of services.

Blackburn with Darwen is the highest in the country on this measure. The most striking thing about the trend is the discontinuity when it switched over to the new Mental Health Services Monthly Statistics (MHSMS) system (this is seen in other areas too):

Figure 1 - Contact with specialist mental health services: rate per 100,000 population aged 18+ (end of quarter snapshot) Error! Bookmark not defined.
QOF prevalence
The main prevalence measure used in PHE’s Severe Mental Illness Profile is the QOF prevalence. This covers bipolar affective disorder, schizophrenia and other psychoses, plus those on lithium therapy, and is expressed as a percentage of all those on the practice register (all ages). Blackburn with Darwen is consistently significantly higher than average (13th highest out of 207 CCGs):

Figure 1 - Severe mental illness recorded prevalence (QOF): % of practice register (all ages)

---

BwD has a rate of 6.3% of the economically active population unemployed (c: 4,000) 2018
BwD Working Age Incapacity is 8096 people = 8.7% of the working age population (53% with mental health diagnoses - but note multi-morbidity on geo-mapping!) 2018

WORKING-AGE INCAPACITY

Employment Support Allowance (ESA) claims

In February 2018, Employment Support Allowance (ESA) was being claimed by 8096 Blackburn with Darwen residents unable to work because of long-term health problems.120 A further 150 people in this position were still claiming legacy benefits such as Incapacity Benefit or Severe Disablement Allowance. Error! Bookmark not defined. The 8096 recipients of ESA equates to 8.7% of the working-age population of Blackburn with Darwen, which is the 11th highest rate out of 152 upper-tier authorities. There were approximately 780 ESA claimants in the old Wensley Fold ward alone, followed by 770 in Shadoworth with Whitebirk. Error! Bookmark not defined.

Conditions leading to ESA claims

By far the biggest category of condition resulting in the receipt of ESA is mental health problems, which account for just over half of all claims in the borough (Figure 71):

*The numbers of ESA claimants will gradually reduce as Universal Credit replaces income-related ESA. However, that process was only just beginning in Blackburn with Darwen in February 2018.*
Health and Work
Spotlight on Mental Health

Mental health conditions are a leading cause of sickness absence in the UK.

19% of long-term sickness absence in England is attributed to mental ill health.

In 2015, some 48% of Employment and Support Allowance recipients had a ‘Mental or Behavioural disorder’ as their primary condition.

Each year mental ill-health costs the economy an estimated £70bn through lost productivity, social benefits and health care.

Work can be a cause of stress and common mental health problems. In 2014/15, 9.9m days were lost to work-related stress, depression or anxiety.

In 2016, 42.7% of those who report mental illness as their main health problem (Mental illness, phobia, panic, nervous disorders (including depression, bad nerves or anxiety) Compared to 74% of all population.

Almost 1 in 6 people of working age have a diagnosable mental health condition.

Over 15m days were lost to stress, depression and anxiety in 2014 – an increase of 24% since 2009.

Of people with physical long term conditions, 1 in 3 also have mental illness, most often depression or anxiety.
Productivity and Health in the North of England

Executive Summary

60 Second Summary

There is a well-known productivity gap between the Northern Powerhouse and the rest of England of £4 per person per hour. There is also a substantial health gap between the Northern Powerhouse and the rest of England, with average life expectancy 2 years lower in the North. Given that both health and productivity are lower in the North, efforts to improve health can yield benefits for productivity and wealth. This report from six of its eight university members (Newcastle, Manchester, Lancaster, Liverpool, Sheffield and York) to understand the impact of poor health on productivity and to explore the opportunities for improving UK productivity by unlocking inclusive, green, regional growth through health improvement. Our report shows the importance of health and the NHS for productivity in the Northern Powerhouse. So, as it develops its post-Brexit industrial strategy, central government must take note of the potential for health to improve productivity and wealth, as well as the importance of improving health in the Northern Powerhouse as a route to increased wealth.

Key findings

- Productivity is lower in the North.
- A key reason is that health is also worse in the North.
- Long-term health conditions lead to economic inactivity.
- Spells of ill health increase the risk of job loss and lead to lower wages when people return to work.
- Improving health in the North would lead to substantial economic gains.
- Improving health would reduce the £4 gap in productivity per person per hour between the Northern Powerhouse and the rest of England by 30% or £1.20 per person-hour, generating an additional £13.2 billion in UK GVA.

£13.2bn in UK GVA
People living with long-term health conditions - such as diabetes, asthma, arthritis, as well as mental health problems like depression or anxiety - are now the main users of health and social care services in England.\textsuperscript{76} They generate more than half of all GP and hospital appointments and the majority of spending.\textsuperscript{77} Over the next 15+ years, these conditions will be even more commonplace (see graphic).\textsuperscript{78}
The NHS Imagination

• When Henry Ford first designed the Model T car for mass production in 1908, it still looked like a ‘horseless carriage’ with the rider sat high up above an engine in front which replaced the horse.
• It took many years to realise it did not need to look like that and that its design and functionality could be different and better.
• The 2020 NHS still seems to be in its own horseless carriage phase—still delivering the historic design functions originally established for its 1948 hospital centred model.
1. The NHS could evolve into a new whole system (or two integrated but collaborating systems) capable of focusing separately on ‘health and wellbeing’ and ‘health care’.
   
   1. The health and wellbeing system should focus on disease incidence management—the prediction and prevention of disease and promotion of wellbeing.
   
   2. The health care system should focus on disease prevalence management—the detection and management of disease and early effective treatment.

2. Commission the Kings Fund and Health Foundation to jointly convene a national conversation with the public and professionals across all sectors to describe this new ‘health and wellbeing’ system for the UK as part of the evolved NHS, and for it to begin operating from April 2023.

3. We need to work towards giving parity to both disease incidence management and disease prevalence management in future NHS funding and planning.
4. Re-design Public Health England, the Local Government Public Health function and the wider prevention spend at local and national levels as the core resource of a new National Health and Wellbeing System - giving local communities a single integrated prevention budget and plan.

5. We need the National Health Service to grow and prosper, but we need it to transfer 1% of currently committed NHS treatment spend - cumulatively, each year for ten years, to new prevention investment in the NHS Health and Wellbeing System.

6. We need to establish new local and national health governance systems as an addition to the current healthcare governance systems. These should be capable of holding to account all of the wider public and commercial bodies whose actions affect the determinants of health.
7. At local level, NHS investment planning should be democratically co-produced with Local Government and the public themselves. Local Government should be given new powers and resources to commission local Citizens Jurys to hear evidence in Town Halls, and bring forward community wide recommendations for local action by citizens and the new NHS, working together.

Local Government, citizens and the NHS would then be part of a new National Health Service that focussed on both health and illness.
The NHS is sacred to us all. Our commitment to the NHS embodies the core values on which our culture is based and it is a national symbol of our collective willingness to care for each other.

As the NHS reaches the tipping point of ‘Peak Treatment’, the functional crises of its current design will become ever more apparent.

Whilst many understand these issues, the NHS is resisting the necessary transformation in design, function, structure, planning, investment, governance, workforce, citizen co-production and other new systems that could bring about change.

In failing to invest in preventative interventions of known effect, the NHS is operating as an agent of, not just a victim of, the massive and avoidable toll of preventable morbidity and mortality that is now overwhelming it.

This might reasonably be described as a ‘systems level never event’; an adverse event that is serious, largely preventable, and of concern to both the public and health care providers.
Service transformation and sustainability

16 The NHS has not fully achieved the vision set out in the Five Year Forward View. The Five Year Forward View, published in October 2014, set out the NHS’s vision to support a sustainable NHS. The strategy had several key themes:

- Developing and rolling out new care models to provide integrated services
  Evaluation of the programme found that while there were signs that some new care models had a positive impact on reducing demand for urgent care, the programme had not provided the evidence needed at a system level on what worked and what did not work. When the programme ended in 2018 place-based new care models covered 9% of the population. The programme also supported the development of primary care homes, which led to the development of primary care networks which were rolled out across the country in 2019. NHSE&I told us that new care models will continue to be rolled out by integrated care systems.

- Reducing demand for services through a greater focus on public health and prevention
  This aspiration was not matched by dedicated funding. For example, the public health grant to local authorities decreased by £0.5 billion, in real terms, between 2015-16 and 2018-19. Ongoing pressures in social care provision also presented challenges for NHS services.

- Strengthening care out of hospitals
  This theme had out-of-hospital (primary and community) care becoming more integrated and a larger part of what the NHS does. But, between 2015-16 and 2018-19, total spending on primary medical and community health services as a proportion of the NHS expenditure decreased from 20.0% to 19.4%. 

1. The NHS is reaching the point of ‘Peak Treatment’ through a failure to invest adequately in prevention and evolve an operating model to deliver it.

2. This is a systems level ‘never event’, causing avoidable morbidity and mortality.

3. In failing to invest in preventative interventions of known effect, the NHS is operating as an agent of, not just a victim of, the massive and avoidable toll of preventable morbidity and mortality that is now overwhelming it.

4. This failure is increasing health inequalities, reducing the allocative efficiency of the NHS and driving financial unsustainability across the NHS system.

5. This is a national emergency hiding in plain sight.
“to transfer 1% of currently committed NHS treatment spend—cumulatively, each year for ten years, to new prevention investment in the new NHS”