What can statistics tell us about the state of the NHS upon the outbreak of the SARS-CoV-2 pandemic?

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Overview

- Funding of NHS
- Workforce
- Beds
- Consequences of capacity constraints
- Estate
- Health Systems Support Framework
- Primary care and NHS111
- Public health
- Social care

NHS Funding – 'Decade of Austerity'

(see Roberts, 2012)

Average **annual real terms increases** in UK health budget:

- 1949-2010 around 4%
- Cost pressures of 4%
- 2009/10-2018/19 1.4%
- £14bn debts across NHS by March 2020
- NHS Providers 2018 5% is needed

Decade with lowest level of funding relative to need since creation of NHS

Constraints on NHS capacity -Workforce

NHS Workforce Statistics, FTE

(Hospital and community health services)

| Staff Group | Feb 2010 | Feb 2020 | Change 2010-20 |
|--|-----------|-----------|----------------|
| Prof qualified staff | 534,349 | 602,501 | +12.75% |
| Support to clinical staff | 287,859 | 347,682 | +20.8% |
| NHS Infrastructure support | 188,082 | 182,357 | -3% |
| Other /unknown | 3,789 | 2,283 | -40% |
| All | 1,014,079 | 1,134,824 | +11.9% |
| Nurses and health visitors | 281,444 | 299,431 | +6.4% |
| HCHS Doctors (exclg GPs) | 95,646 | 117,842 | +23.2% |
| Support to doctors, nurses & midwives | 224,725 | 262,540 | +16.8% |

Workforce shortages - "the biggest threat facing the NHS" (Beech et al, 2019)

- 100,000 FTE workforce shortage outside primary care in 2018 (Health Foundation et al, 2018)
- 41,000 vacancies in nursing in 2018 (Beech et al, 2019)
- Turnover (nursing 11.9%; mental health clinical staff 13.4% in 2019)
- But care for the workforce is not prioritised
- Abolition of nursing / allied health bursaries from 2017; cut in education/training budget

Reasons for leaving

- NHS Workforce Stats work-life balance is largest single cited reason (26% in 2018/19)
- Nursing and Midwifery Council (2017) survey: 44% working conditions, including workload and staffing levels; 27% poor quality care; 16% poor pay and benefits
- Systematic review of systematic reviews: multiple determinants of turnover in adult nursing (nurse stress and dissatisfaction / managerial style and supervisory support factors (Halter et al, 2017)
- Staff pay capped or frozen from 2010/11 up until 2017/18 (real terms reduction of 10% in nurse starter salary) (Beech et al, 2019)

Capacity constraints – hospital beds

NHS hospital beds (NHS Beds Database; King's Fund, 2020)

| England | 1987/88 | 2009/10 | 2019/20 | Change |
|--------------|------------|-----------|-------------|-----------|
| | | | (Jan- | 1987/88 – |
| | | | Mar2020) | 2019/20 |
| Total | 299,000 | 158,400 | 141,000 | -53% |
| General and | 181,000 | 121,756 | 101,000 | -44% |
| acute | | | | |
| Geriatric | 53,000 | 21,000 | | |
| Mental | 67,122 | 25,503 | 18,182 (Mar | -73% |
| illness | | | 2020) | |
| Learning | 33,421 | 2,809 | 662 | -97% |
| disability | | | (Mar2020) | |
| Maternity | 15,932 | 8,392 | 7,663 | -52% |
| Day only | 2,000 | | 12,812 | +640% |
| All critical | | 5,400 | 5,900 | |
| care | | (2011/12) | | |
| Population | 47,300,000 | | 56,000,000 | +18% |

OECD Health Care Resources

https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_REAC

- OECD average 4.5 beds per 1,000 people (2018)
- UK 2.5 beds per 1,000 people (2018)
- Germany 8 beds per 1,000 people (2017)

Intensive care beds – March 2020

| | Adult critical (intensive) care beds March 2020 | |
|-----------|--|--|
| England | 4,122 | |
| Scotland | 190 | |
| Wales | 150 | |
| N Ireland | 100 | |
| UK Total | 4,382 | |
| Germany | 28,000 | |

Consequences of capacity constraints

Impact on patient care arising from capacity constraints

- Not enough capacity!
- Jan 2020 17.1% patients waited >2 weeks for GP appt (BMA, 2020)
- Feb 2010 90.3% patients treated within 18 weeks (referral to treatment); 2.34m on wait list
- Feb 2020 83.2% patients treated within 18 weeks; 4.43m on waiting list (RTT Overview Timeseries)
- Measures to reduce demand

Outsourcing to private sector

- 2012 Health & Social Care Act prohibits 'preference' for NHS provider
- 'Any qualified provider' policy mainstreams non NHS providers
- Lengthy waiting lists for NHS providers incentivise choice of non NHS providers
- 'Emergency admission first' policy delays NHS elective care & encourages CCGs to commission care from private providers
- NHS providers outsource work under pressure of waiting time targets

Interdependence of sectors

Private acute hospital medical/surgery and clinic sector increasingly reliant on revenue from NHS:

- 2007 5% of revenues from NHS
- 2018 32% of revenues from NHS (Barrett Evans et al 2018)

But also entrenching NHS dependence on the private sector

NHS Expenditure on private providers

(Rowland, 2019)

| Expenditure on non-NHS bodies | 2013/14 | 2018/19 | Change 2013/14 to 2018/19 |
|---|----------|----------|---------------------------------|
| Purchasing of hospital community health care outside primary care from non-NHS providers by NHS England Group | £9,373m | £13,734m | 47% |
| Purchasing of (mainly elective) health care from non-NHS providers by NHS providers | £683m | £1,328m | 106% |
| Total expenditure on independent sector | £24,173m | £29,827m | 23% |

Capacity constraints – service reconfiguration and sale of estate

Reducing NHS estate

- 1948 3,000 UK hospitals nationalised
- 2019 approx 1,060 UK NHS hospitals

Two broad reconfiguration processes to reduce (expensive) hospital care:

- Transfer services from hospital into community
- Centralise hospital services onto fewer sites

Pre-dates but is reinforced by 'new models of care' and policy of restricted funding

2010/11 -2017/18 capital budget declined by 7%

Naylor Review 2017

| No. sites owned by NHS Trusts | 1,200 |
|--|------------|
| Value of these sites | £9 - £11bn |
| No. properties managed by NHS Property Services | 3,500 |
| Amount of capital investment needed by NHS | 10bn |
| Value of land that could be sold to raise money for capital investment | £2.7bn+ |
| Maintenance backlog by Jan 2020 | £6.5bn |

Hospitals, England & Wales, 1914

(Currie, 2013 & Wikipedia)

| Institution | Average size (beds) | Number in England and Wales |
|---------------------|------------------------|-----------------------------------|
| Fever hospital | 41 | 755 |
| Poor Law Infirmary | 134 | 700 |
| General hospital | 53 | 594 |
| Smallpox hospital | 22 | 363 |
| Specialist hospital | 62 | 222 |

Reorganising the NHS to a Population Health Management approach

Health Systems Support Infrastructure

- To assist local health systems to move towards new models of care and Population Health Management (via Integrated Care Systems)
- Jan 2020 80+ suppliers of support and advice, mostly commercial, around 6 are NHS
- <u>https://www.england.nhs.uk/hssf/supplier-lists/</u>

Primary care and NHS 111

Primary care under pressure

- 312m GP appointments 2019, rising BUT
- FTE GP numbers declining since 2015, despite increased training places (BMA, 2020)
- GPs choosing sessional/locum work; 45% GPs working less than full time Dec 2019 (Triggle, 2019)
- Jan 2020 45% of 'GP appointments' were with non GP health care workers (BMA, 2020)
- Public advised to use NHS111 for Covid-19 related advice – but there were insufficient health care professionals to staff the Covid-19 Clinical Assessment Service

NHS111 – response to calls

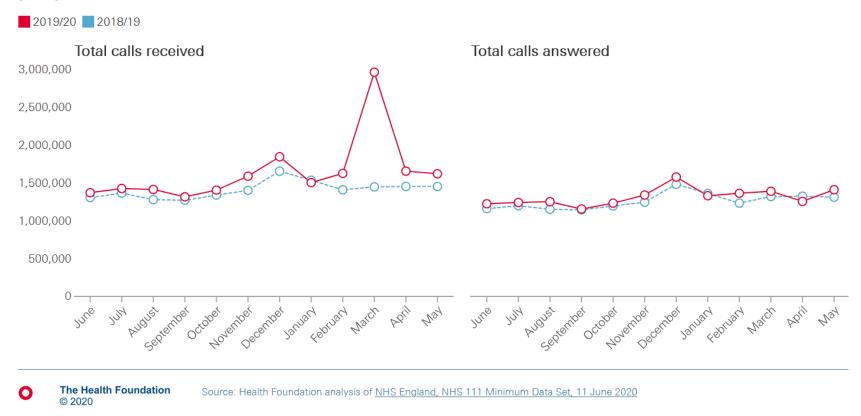
(Health Foundation, June 2020)

| | January 20 | February 20 | March 20 | April 20 |
|--|------------|-------------|------------|-----------|
| No. calls | 1,503,318 | 1,625,240 | 2,962,751 | 1,655,146 |
| Change in no. call on previous year | -31,771 | +217,407 | +1,515,625 | +202,702 |
| Calls | 1,329,760 | 1,362,402 | 1,388,916 | 1,254,667 |
| answered | 88.5% | 83.8% | 46.9% | 75.8% |
| Change calls answered on previous year | -29,913 | +130,392 | +69,665 | -68,860 |

NHS111 – response to calls

(Health Foundation, June 2020)

NHS 111 received a record number of calls in March 2020, but a large proportion went unanswered



Public health

Public health budget

Three way split of public health in 2012 Health and Social Care Act, reducing coherence

- 2014/15 2019/20 £700m real terms reduction in public health funding; 25% p.c. cut
- 2018/19 £3.3bn
- 2019/20 £3.1bn

Not all lessons from Exercise Cygnus had been acted upon

Social Care

Social Care – Funding

- 2009/10 2017/18: overall spending by local authorities on adult social care fell by 5% (IFS, 2019)
- Early 2020: funding in social care in England still £300 million *below* level of funding in 2010 in real terms (Bottery 2020)
- 2019/20 funding gap in adult social care estimated at £2.5bn by the King's Fund, Health Foundation and Nuffield Trust (House of Commons, 2018)
- Estimated 1.5m people have unmet care needs (AgeUK, 2019); tightening of eligibility criteria

Social care – Local Authority provision

(Fotaki et al, 2013)

| Provided by | 1979 | 1993 | 2012 |
|------------------------|------|------|------|
| local | | | |
| authorities | | | |
| Residential/nur | 64% | | 6% |
| sing home beds | | | |
| | | | |
| Domiciliary | | 95% | 11% |
| care | | | |

Social care provision - figures for 2018

(Skills for Care Report, 2019)

- 18,500 organisations providing adult social care with around
- > 50% had fewer than 10 employees
- 1.5 million people working in adult social care outside the NHS (82% female; 17% non British national TUC, 2020)
- Around 45% of employees worked in the largest 2% of organisations which had 250 or more employees
- 145,000 work for direct payment recipients

Social care provision – distribution of workforce by sector in 2018 (Skills for Care, 2019)

| Private | Third | Local | Direct | NHS |
|---------|--------|-----------|----------------------|-----|
| sector | sector | Authority | payment employers | |
| 59% | 19% | 7% | 9% | 6% |

Social care workforce

- Overall, 25% of workforce and 35% of care workers on zero hours contracts
- 20% of care workers on minimum wage; mean wage is 50p higher
- Over 50% unregulated care workforce had no care qualifications
- 30.8% turnover of direct employed staff (440,000 staff) (sfc, 2019); 40% among care workers (CQC, 2019)
- 7.8% vacancy rate (122,000) (SfC, 2019)
- Staff shortages especially in specialist workers > use of agency staff, imperfect skill mix, production line approach
- Trade union density =?

Impact on pandemic response

- Fragmentation challenged coordinated response
- Shortage of care provision with limited options for discharged patients, esp rural areas
- Reliance on agency staff among some employers affected spread of infection
- Lack of cultural and political salience plus unorganised character of workforce delayed recognition of sector's needs in a pandemic

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