## The two-tier system in England's NHS

# A report on the impact of privatising services for publicly funded elective hip and knee replacement surgery

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#### Summary

There has always been a two-tier system in England. Since the creation of the NHS those who can afford to pay for treatment can jump the queue.[1] However, people paying to go the private sector have always been a minority. Most people use the NHS, where equal access for equal need, not ability to pay, have been the founding principles.

However, for over two decades the government in England has been diverting NHS funds away from public hospitals to the private sector (outsourcing / privatisation) for a range of services including elective knee, hip, and cataract surgery. This report shows how England's policies are shrinking in-house NHS provision and creating a two-tier system *within* the NHS funding system. Poorer and less healthy patients now have longer waits and less access to care due to reduced capacity in the NHS, as contracting out is destabilising training and other vital services in the NHS. In contrast, Scotland has increased NHS in-house capacity without using the private sector or increasing inequalities to the same extent. Inequalities in England are increasing at two and a half times the rate of Scotland.

### England and Scotland

The National Health Service in the UK is not a single institution. It was created by three acts of Parliament for England and Wales (1946), Scotland (1947), and Northern Ireland (1948). In 1999, the new Scotlish Parliament was given devolved powers to make its own policies for health services. While Scotland and England have both prioritised funding to clear waiting lists in elective surgery they have taken different policy routes.

England's policy has been to direct NHS funding to the private sector using commercial contracts. In this way it has been transferring a range of services, including elective surgery, out of NHS public hospitals to the private for-profit sector. This requires using public funds intended for the NHS and its public hospitals.[2–4] Scotland, on the other hand, has sought to grow extra capacity within the NHS with minimal outsourcing. Instead, it bought up a private hospital in 2002, renaming it the Golden Jubilee National Hospital and making it a special health authority.

By 2022 the private sector in England was the main provider of all hip and knee replacement, whether private or NHS funded.[5,6] The proportion of NHS funded hip and knee replacements carried out in private providers in England was almost 40% in 2022/23.[7] Scotland in contrast continued to rebuild in-house provision and increase capacity without recourse to the private sector.

## The policy claims

The government in England claims that the use of the private sector can increase capacity and reduce waiting times, tackle inequalities, reduce costs, and make use of innovation. We examine the first three of these claims comparing England's policy of increased use of the private sector for NHS elective surgery with Scotland's policy of keeping surgery in-house. We analysed NHS hospital data over 20 years between 1997/98 and 2018/19 for elective surgery for hip and knee replacement using three different time periods for Scotland and England.

#### Periods of analysis

- Period 1, April 1997 March 2003: Tony Blair's Labour government in the UK; the establishment
  of a devolved government in Scotland in 1999; prior to outsourcing in England; waiting time
  initiative begins in July 2002 in Scotland
- Period 2, April 2003-March 2008: the first phase of outsourcing in England; in 2003 contracts worth £1.6bn over five years were awarded to private sector providers and a further £3bn of contracts were awarded in 2005 for five years; Scotland develops its waiting time initiative
- Period 3, April 2008 March 2019: the second phase of expanded outsourcing in England saw continual expansion and intensification of private sector involvement under successive Labour and Conservative governments; austerity policies affected both countries

#### Increased capacity?

Admission rates for NHS funded hip and knee replacement increased significantly between April 1997 and March 2019 in England and Scotland with concomitant falls in waiting times.[11]

In England between 1997/98 and 2002/03, when the NHS was almost the sole provider, there was a very large increase in the admission rates in the NHS for surgery for hip (34%) and knee (70%). After the introduction of the private sector, the rate of increase declined slightly, and from 2007/08 to 2018/19, when the private sector was more fully involved, the rate of increase over the 11 years to 2018/19 fell to 1.6% for hips and 19% for knees. Moreover, in the third period, while admission rates to NHS hospitals fell they rose in the private sector by a factor of four. In 2018/19, 31% of NHS-funded hip and knee patients were treated privately.

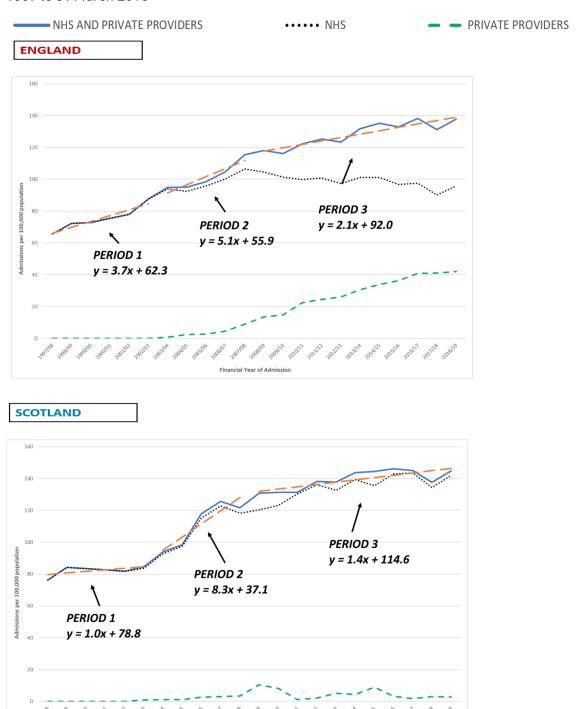
In Scotland, increases in capacity started from a higher rate of admissions, probably because there is less private practice and so less incentive for doctors to keep waiting lists long. The increases were sustained and only 2% of hip and knee patients were treated in the private sector in 2018/19.\*

Between April 2008 and March 2019, almost 25% of NHS funded hip and knee replacements were provided privately in England; in Scotland it was less than 4%. In England in 2018/19, 30% of NHS funded hip and knee replacements were provided by the private sector compared with just 2% in Scotland. The fastest increase in admissions occurred when the NHS was almost the sole provider in England. The rate of increase fell dramatically during the period of rapid private sector expansion. By 2018/19, the private sector was substituting for the in-house NHS provision and admissions to the NHS had fallen in England. Scotland achieved the increase without using the private sector and the increase in in-house admissions/ capacity in the NHS was sustained.

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<sup>\*</sup> From 11% and 28% increases in admission rates for hips and knees respectively in the first period it was 19% and 17% over the final 11 years.

Figure 1. NHS England and NHS Scotland funded elective hip replacement admissions 01 April 1997 to 31 March 2019



Where do readmissions from the private sector go?

Readmissions due to complications following surgery are common. An estimated 5-6% of patients are readmitted within 30 days of surgery. We found patients who have their original treatment in the private sector do not return to the private sector but are readmitted back into NHS hospitals. Of the 2,145,700 NHS-funded hip and knee replacements in England over the three periods, 18% (392,800) were carried out in the private sector.[12] Almost all those patients

readmitted within 30 days of surgery (12,981, 99.5%) went to the NHS and just 0.5% (66) to private providers.

Readmissions often require further surgery and long stays in hospitals and use up a lot of NHS bed capacity. Readmissions from private sector hip, knee, and cataract operations accounted for almost 120,000 NHS bed days between 2003/04 and 2018/19. In 2018/19, 26% of all readmissions to the NHS from hip replacements were from the private sector, displacing perhaps around 60,000 NHS elective surgical patients. Instead of creating capacity, the use of the private sector places additional pressure on NHS beds and further reduces resources for treating and operating on poorer and sicker patients who need their treatment in the NHS.

Richer, healthier patients not only have shorter waiting times for NHS funded care, but because they are readmitted to the NHS public hospitals, they then displace poorer patients who must wait even longer for treatment. This problem is growing as more and more patients have their first surgery in the private sector, including those paying privately. As a result, waiting times for poorer, sicker patients increase and this further exacerbates the two-tier system within the NHS funded systems.

## Waiting times?

In England between 2003 and 2008, when the proportion of NHS patients treated in the private sector was negligible (7% at its highest), waiting times more than halved for both hip and knee replacements.[11] In period 3, after 2008/09, following the expansion in the use of private providers by the NHS, waiting times rose for all NHS-funded patients, whether treated privately or in the NHS.\*

In 1997/98, waiting times in England for hip and knee surgery were about 50% longer than in Scotland. This was reversed by 2008/09, when English waiting times were about 10% shorter, and they remained shorter until 2018/19. The English NHS funded the private sector for about 25% of hip and knee replacements during period 3, whereas Scotland funded just 4%. It may be that there is now excess supply compared with actual need for cataracts in England due to the incentives payment systems. Supplier induced demand is a feature of marketized systems with unnecessary treatment.

In England, patients going to the private sector have shorter waiting times than those treated in-house. Overall, however, the introduction of private providers into the NHS is associated with increased waiting times for all patients in England. While waiting times have been shorter for patients going to the private sector, for every 1% of patient growth in NHS funded private sector treatments, the overall waiting times for all patients rise by 2% in England. [13]

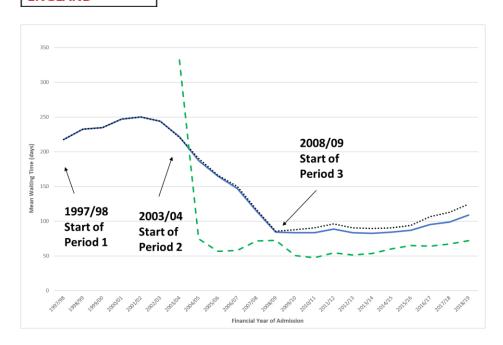
\*The increase started after 2008/09 in the NHS, as public sector austerity measures began to be introduced as a response to the financial crisis. By 2018/19, waiting times were 46% longer than 2008/09 for hips and 48% for knees. For NHS-funded private operations, the increase in waiting times began after 2012/13, being 40% higher for hips by 2018/19, and 35% for knees. Over period 3, waiting times for private providers were about three-fifths of those for the NHS for hips, and two-thirds for knees.

In Scotland, from 2008/09 NHS waiting times for hips and knees increased 40% and 37% respectively. Private sector waiting times increased much more sharply, by 97% and 84% for hips and knees. This meant that over the period the average waiting time was about the same for both NHS and private sector, and in 2018/19 it was 18% longer for hips and 10% for knees in the private sector.

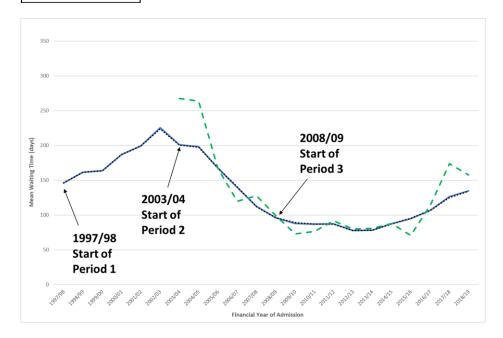
Austerity and the associated funding freezes after 2008/9 was accompanied by increasing waiting times for hips and knees increase in Scotland.								

Figure 2. Mean waiting times for NHS England and NHS Scotland funded elective hip replacement admissions 01 April 1997 to 31 March 2019





## SCOTLAND



## Inequalities?

Since 2006 Parliament has required the government and NHS in England to address and reduce inequalities in health. This includes ensuring "equity of access, experience and outcomes for the most deprived 20% of the population".[14] Integrated care boards, the bodies that commission NHS services, are required to "set a clear local vision for how health inequalities will be reduced as part of elective care reform, and ensure interventions are in place to reduce disparities for

groups who face additional waiting list challenges".[15] Scotland has no direct equivalent in legislation but claims to have a broader and more integrated approach.[16]

When we looked at the impact on inequalities of government policies that require the NHS to outsource elective surgery to the private sector we found the following.

Patients living in the poorest areas of the population of England are less likely to receive surgery than those in richer areas.[10] NHS funded patients treated in the private sector are healthier and more likely to come from less deprived areas.[2,17] While waiting times are linked to admissions rates, in England there was a sharp decline in inequality prior to 2003, which then slowed and reversed.

In England, the gap in access to surgery between rich and poor is increasing. In 1997/98, for every 10 patients admitted for hip and knee surgery from the most deprived quintile, 13 and 9, respectively, were admitted from the least deprived.[18] By 2018/19, for every 10 patients admitted for hip and knee surgery from the most deprived quintile, 19 and 15, respectively, were admitted from least deprived. For the short period that Scotland contracted out private surgery there was a significant fall in in-house NHS provision in 2007/08 and increasing inequality in treatment rates for older and poorer patients undergoing elective hip replacement.[19]

Figure 3. NHS England funded elective primary hip replacement admissions, absolute and relative difference in admissions between index of multiple deprivation quintiles IMD5 and IMD1 and slope index of inequality by financial year 01 April 1997 to 31 March 2019

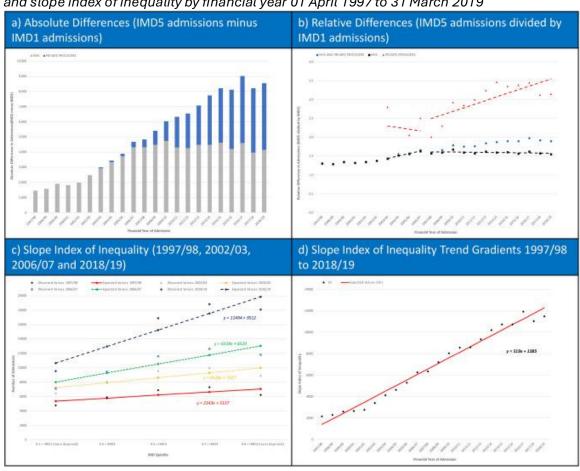


Figure 3a shows that the absolute difference in admissions for hip surgery (the least deprived quintile (IMD5) minus the most deprived (IMD1) has been increasingly driven by NHS-funded surgery in the private sector. Figure 3b shows the same trend as a relative difference, increasing in the private sector after 2007/08.

#### Two-tier system

There has always been a two-tier system in England. However, our results for England show that that outsourcing elective hip and knee surgery is creating a two-tier system *within* the NHS funding systems, so that poorer and less healthy patients have longer waits and less chance of being treated than richer NHS-funded patients.

The contracts between the NHS and private sector allow private providers to pick and choose wealthier and healthier patients. In the US this is known as *cream skimming* or *cherry picking*. The contracts are set up like this is because the private sector does not generally have the facilities for treatment when things go wrong or if patients have multiple morbidities and require, for example, more intensive nursing and medical care. Such contracts are also far more attractive to the private sector, as providing predictable income and straightforward procedures. The consequence of this is those requiring more complex care remain in-house within the NHS where the supportive care that they need can be provided.[2] These patients have more ill health and higher levels of comorbidities and are more likely to come from the more deprived in society.\*

#### Private sector is substituting for in-house care

Private sector capacity is not additive. Rather it is increasing at the cost of NHS in-house provision, substituting for NHS in-house treatment. At the same time, long waiting lists encourage more of those from less deprived areas and more affluent backgrounds to self-fund in the private sector, which has the effect of shifting more staff and associated resources away from the NHS. [22]

#### Costs of the private sector

The costs to the NHS of paying private providers are enormous. It has been estimated that just five companies alone extracted £90m in one year in interest payments and dividends from their NHS-funded cataract surgery.[23] (Clearly the sums for all companies providing elective surgery would run into hundreds of millions, money that could have been reinvested in the NHS, in helping to ensure a sustainable service with better training and facilities.)

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<sup>\*</sup> It is thought that these inequalities do not occur in the early parts of the patient pathway, but after the first outpatients appointment, [20] although there is some evidence that referral to private providers may be affected by individual GP practices and by location of private facilities. [21] The reasons for the increase in inequality in period 1, when the NHS was the sole provider, are unclear. Perhaps the drive to reduce waiting lists, that is, numbers of patients waiting, incentivised hospitals to admit "easier" patients, an example of how targets can distort the outcomes they seek.

Pandemic profits: how the public sector ended up subsidizing private surgeries

In July 2020, during the covid-19 pandemic, the English NHS contracted with the private sector for NHS access to "most independent hospital capacity" until March 2021.[24] The shift to use private hospitals was supposed to be a temporary change, but additional contracts valued at £10bn were awarded in 2022 to 52 private companies in order to help reduce waiting lists.[25] At the same time as being paid for treating NHS funded patients the private sector continued to expand its numbers of privately funded patients – those paying out of pocket or through private insurance. The number of private operations almost doubled, from about 12,600 in 2018 to about 23,600 in 2021 and 26,200 in 2023 for hips and from 12,600 in 2018 to 22,700 in 2023 for knees. The private sector is expanding its provision of both NHS- and privately-funded elective treatments.

Table 1: Hip and knee operations, number and percentage (%) by source of funding and year, 2013-2023

	Hips				Knees			
	n total	NHS- funded n*	priv- funded n*	% priv- funded	n total	NHS- funded n*	priv- funded n*	% priv- funded
2013 (Apr-Dec)	57,041	50,200	6,800	12%	60,683	54,600	6,100	10%
2014	82,156	73,100	9,000	11%	90,901	81,800	9,100	10%
2015	83,894	73,800	10,100	12%	94,134	84,700	9,400	10%
2016	87,959	77,400	10,600	12%	98,602	88,700	9,900	10%
2017	90,127	78,400	11,700	13%	100,713	89,600	11,100	11%
2018	90,313	77,700	12,600	14%	96,902	84,300	12,600	13%
2019	92,640	78,700	13,900	15%	100,704	88,600	12,100	12%
2020	54,318	41,800	12,500	23%	50,588	40,500	10,100	20%
2021	84,197	60,600	23,600	28%	77,941	60,000	17,900	23%
2022	96,670	71,500	25,100	26%	97,271	76,800	20,400	21%
2023	104,756	78,600	26,200	25%	113,435	90,700	22,700	20%
	924,071	-			981,874	•		

Data and table adapted from Wyatt S, Mohammed MA, Spilsbury P. The effect of National Health Service waiting times on private funding of hip and knee replacement surgery in England: a causal analysis of individual and population level data from 2013 to 2023. Unpublished 2025

#### Emergency cover

NHS hospitals provide emergency cover for NHS patients using the private sector. Although NHS-funded hip and knee replacement patients treated in private facilities have shorter initial hospital stays, they experience longer lengths of stay upon readmission than NHS readmissions who have had their original surgery in-house. The private sector cherry-picks healthier patients, discharges early, and then washes its hands of patients, so that the management of complications goes back to NHS, a situation that has worsened over the period 2003/04 and 2018/19.

#### Training

Routine elective work is essential for trainee NHS doctors, who need to practice and develop their skills on straightforward, high volume work. Outsourcing undermines this as private clinics rarely provide formal training. Such costs are left to the NHS.

## Other impacts

<sup>\*</sup>These numbers have been rounded to the nearest 100

There are other drawbacks to the privatization of NHS services, which negatively affects the entire system.

The NHS provides the mainstay of clinical medical research on NHS patients – if the publicly provided services shrink, budgets shrink and patients shift to the private sector there is an overall loss of capacity and funding to do NHS research for the benefit of all patients .[26]

Moreover, recent research by Goodair and Reeves found that the outsourcing of NHS services to for-profit companies (2013-2020) was associated with "significantly increased rates of treatable mortality, potentially as a result of a decline in the quality of health care services." [27]

#### Conclusion

The NHS in England has a responsibility to reduce inequalities, but its health bodies are failing to monitor the impact of its policies on inequalities. England's privatisation is associated with increased inequality in access to care, longer waiting times, and shrinking capacity in the public system. In contrast, Scotland's continued investment in the public system has yielded superior results: increased capacity without recourse to the private sector, maintenance of an egalitarian public system. Inequality in terms of admissions increased in England at two and a half times the rate of Scotland. In England, the most affluent people benefitted from privatization at the expense of the most deprived sections of the population. By 2018/19, almost twice as many people were admitted from the most affluent areas for hip replacements, and one and a half times for knee surgeries. The policy of using the private sector is undermining the integrity of the NHS in England.

The current Labour government is failing to focus attention on the way in which direct NHS provision and capacity are withering away, while inequalities and waiting times increase. The NHS is at risk of rapidly becoming a provider of last resort for elective surgery. The National Audit Office and parliamentary committees must conduct inquiries as a matter of urgency with a moratorium on contracting out.

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#### References

- 1 Minutes of Evidence. Memorandum by Professor John Yates. 2000.
- 2 Mason A, Miraldo M, Siciliani L, *et al.* Establishing a fair playing field for Payment by Results. Centre for Health Economics, University of York 2008.
- 3 Moscelli G, Gravelle H, Siciliani L. Hospital competition and quality for non-emergency patients in the English NHS. *The RAND Journal of Economics*. 2021;52:382–414. doi: 10.1111/1756-2171.12373
- 4 Cookson R, Laudicella M, Donni PL. Measuring change in health care equity using small-area administrative data Evidence from the English NHS 2001–2008. *Social Science & Medicine*. 2012;75:1514–22. doi: 10.1016/j.socscimed.2012.05.033
- 5 Hips all procedures activity: procedure details by type of provider. National Joint Registry. 2025. https://reports.njrcentre.org.uk/hips-all-procedures-activity
- 6 Knees- all procedures activity: procedure details by type of provider. National Joint Registry. 2025. https://reports.njrcentre.org.uk/knees-all-procedures-activity
- 7 Wainwright T, Immins T, Middleton R. Changes in hip and knee arthroplasty practice post-COVID-19 in the English NHS: a retrospective analysis of hospital episode statistics data. annals. 2025;107:253–6. doi: 10.1308/rcsann.2024.0100
- 8 Maling S, Adams M. Independent sector cataract training. *Eye.* 2024;38:2663–4. doi: 10.1038/s41433-024-03097-y
- 9 Donachie PH, Barnes B, Olaitan M, et al. National ophthalmology database audit: seventh annual report of the National Cataract Audit. The Royal College of Ophthalmologists 2024.
- 10 Wyatt S, Bailey R, Moore P, et al. Equity of access to NHS-funded hip replacements in England and Wales: Trends from 2006 to 2016. *The Lancet Regional Health Europe*. 2022;21. doi: 10.1016/j.lanepe.2022.100475
- 11 Kirkwood G, Pollock AM. Waiting times and admissions policies in England and Scotland before and after privatisation of services for elective surgery in England. *In submission*. 2025.
- 12 Kirkwood G, McNally R, Pollock AM. Taking advantage of the English NHS: an ecological analysis of readmissions following NHS funded elective surgery in the private sector. *In submission*. 2025.
- 13 Hornby S, Kirkwood G, Pollock AM. Outsourcing NHS cataract surgery in England a misguided policy? A comparison of waiting times and admissions in England and Scotland 1997/98-2018/19. 2024.
- 14 NHS England. NHS England equality objectives programme engagement report 2022/23. NHS England 2023.
- 15 NHS England. Reforming elective care for patients. 2025.
- 16 Scottish Government, Convention of Scottish Local Authorities. Scotland's population health framework 2025-2035. 2025.
- 17 Sutaria S, Kirkwood G, Pollock, Allyson M. An ecological study of NHS funded elective hip arthroplasties in England from 2003/04 to 2012/13. *Journal of the Royal Society of Medicine*. Published Online First: 7 June 2019. doi: 10.1177/0141076819851701
- 18 Kirkwood G, Pollock AM, Roderick P. Private sector expansion and the widening NHS treatment gap between rich and poor in England: admissions for NHS-funded elective primary hip and knee replacements between 1997/98 and 2018/19. *Health Policy*. 2024;105118. doi: https://doi.org/10.1016/j.healthpol.2024.105118
- 19 Kirkwood G, Pollock AM. Patient choice and private provision decreased public provision and increased inequalities in Scotland: a case study of elective hip arthroplasty. *J Public Health*. 2017;39:593–600. doi: 10.1093/pubmed/fdw060
- 20 Wyatt S, Parsons J. Socio-economic inequalities in access to planned hospital care: causes and consequences. The Strategy Unit 2021.

- 21 Beckert W, Kelly E. Divided by choice? For-profit providers, patient choice and mechanisms of patient sorting in the English National Health Service. *Health Economics*. 2021;30:820–39. doi: 10.1002/hec.4223
- 22 Wyatt S, Mohammed MA, Spilsbury P. The effect of National Health Service waiting times on private funding of hip and knee replacement surgery in England: a causal analysis of individual and population level data from 2013 to 2023. 2025.
- 23 Rowland D. Out of sight the hidden profits and conflicts of interest behind the outsourcing of NHS cataract care. Centre for Health and the Public Interest 2025.
- 24 Stevens S, Pritchard A. INQ000051407 Letter from Simon Stevens (NHS Chief Executive) and Amanda Pritchard (NHS Chief Operating Officer) to Chief Executives of all NHS trusts and foundation trusts, regarding third phase of NHS response to Covid-19, dated 31/07/2020. UK Covid-19 Inquiry 2020.
- 25 NHS England Increasing Capacity Framework agreement refresh. GOV.UK. 2022. https://www.contractsfinder.service.gov.uk/notice/cc6914bb-c761-43c3-b3a4-c2e79f94ec3d
- 26 Williams GS. The treason of the long knives. *Eye*. 2024;38:1229–1229. doi: 10.1038/s41433-023-02836-x
- 27 Goodair B, Reeves A. Outsourcing health-care services to the private sector and treatable mortality rates in England, 2013–20: an observational study of NHS privatisation. *The Lancet Public Health*. 2022;7:e638–46. doi: 10.1016/S2468-2667(22)00133-5

#### **Bibliography**

- Burton BJL. Response to: 'The Treason of the Long Knives'. Eye. 2024;38:1230–1230. https://doi.org/10.1038/s41433-023-02837-w
- Centre for Health and the Public Interest. The local and national impact of profit leakage in the outsourcing of NHS eye care services to the private sector. 2025.

  <a href="https://www.chpi.org.uk/s/Briefing-note-on-profit-leakage-from-NHS-eye-care-and-impact-on-ICBs-FINAL-03052025.pdf">https://www.chpi.org.uk/s/Briefing-note-on-profit-leakage-from-NHS-eye-care-and-impact-on-ICBs-FINAL-03052025.pdf</a>
- Coughlan E, Keith J, Gardner T, et al. Waiting for NHS hospital care: the role of the independent sector in delivering orthopaedic and ophthalmic care. The Health Foundation 2023. https://www.health.org.uk/reports-and-analysis/analysis/waiting-for-nhs-hospital-care-the-role-of-the-independent-sector-in
- Goodair B, Reeves A. Outsourcing health-care services to the private sector and treatable mortality rates in England, 2013–20: an observational study of NHS privatisation. *The Lancet Public Health*. 2022;7:e638–46. https://doi.org/10.1016/S2468-2667(22)00133-5
- Keep Our NHS Public. Privatisation of the NHS: what it looks like and the impact it has. 2025. https://keepournhspublic.com/wp-content/uploads/2025/09/KONP-Briefing-NHS-Privatisation-18-Sept-2025-Web-Email.pdf
- Kirkwood G, Buchan J, Pollock AM. Waiting times for cataract surgery in Scotland since 2002 and the effect of austerity: an interrupted time series analysis. Ophthalmic Epidemiology. Published Online First: 1 June 2022. <a href="https://doi.org/10.1080/09286586.2022.2075900">https://doi.org/10.1080/09286586.2022.2075900</a>
- Kirkwood G, McNally R, Pollock AM. Taking advantage of the English NHS: an ecological analysis of readmissions following NHS funded elective surgery in the private sector. In submission. 2025.
- Kirkwood G, Pollock AM. Outsourcing NHS cataract surgery in England a misguided policy? A comparison of waiting times and admissions in England and Scotland 1997/98 2018/19. In submission. 2025.
- Kirkwood G, Pollock AM. Waiting times and admissions policies in England and Scotland before and after privatisation of services for elective surgery in England. In submission. 2025.
- Kirkwood G, Pollock AM. Outsourcing National Health Service surgery to the private sector: waiting time inequality and the making of a two-tier system for hip and knee replacement in England. International Journal of Social Determinants of Health and Health Services. Published Online First: 2025. <a href="https://doi.org/10.1177/27551938251336949">https://doi.org/10.1177/27551938251336949</a>
- Kirkwood G, Pollock AM. Socioeconomic inequality, waiting time initiatives and austerity in Scotland: an interrupted time series analysis of elective hip and knee replacements and arthroscopies. J R Soc Med. 2022;01410768221090672. https://doi.org/10.1177/01410768221090672
- Kirkwood G, Pollock AM. Patient choice and private provision decreased public provision and increased inequalities in Scotland: a case study of elective hip arthroplasty. J Public Health. 2017;39:593–600. <a href="https://doi.org/10.1093/pubmed/fdw060">https://doi.org/10.1093/pubmed/fdw060</a>
- Kirkwood G, Pollock AM, Roderick P. Private sector expansion and the widening NHS treatment gap between rich and poor in England: admissions for NHS-funded elective primary hip and knee replacements between 1997/98 and 2018/19. Health Policy. 2024;105118. https://doi.org/10.1016/j.healthpol.2024.105118
- Maling S, Adams M. Independent sector cataract training. Eye. 2024;38:2663–4. https://doi.org/10.1038/s41433-024-03097-y
- Mason A, Street A, Verzulli R. Private sector treatment centres are treating less complex patients than the NHS. J R Soc Med. 2010;103:322–31. https://doi.org/10.1258/jrsm.2010.100044
- Moscelli G, Gravelle H, Siciliani L. Hospital competition and quality for non-emergency patients in the English NHS. The RAND Journal of Economics. 2021;52:382–414. https://doi.org/10.1111/1756-2171.12373

- Oxford E. The NHS paid private hospitals £2bn in the pandemic: did taxpayers get value for money? BMJ. 2023;380:p329. <a href="https://doi.org/10.1136/bmj.p329">https://doi.org/10.1136/bmj.p329</a>
- Rowland D, Ryan S. Out of sight understanding the hidden impact of cataract outsourcing on NHS finances. Centre for Health and the Public Interest 2024.
  - https://www.chpi.org.uk/reports/out-of-sight-understanding-the-hidden-impact-of-cataract-outsourcing-on-nhs-finances
- Rowland D. Out of sight the hidden impact of cataract outsourcing on NHS eye care departments. Centre for Health and the Public Interest 2024. https://www.chpi.org.uk/reports/out-of-sight-the-hidden-impact-of-cataract-outsourcing-on-nhs-eve-care-departments
- Rowland D. Out of sight the hidden profits and conflicts of interest behind the outsourcing of NHS cataract care. Centre for Health and the Public Interest 2025.
  - https://www.chpi.org.uk/reports/out-of-sight-the-hidden-profits-and-conflicts-of-interest-at-behind-the-outsourcing-of-nhs-cataract-care
- Wainwright T, Immins T, Middleton R. Changes in hip and knee arthroplasty practice post-COVID-19 in the English NHS: a retrospective analysis of hospital episode statistics data. annals. 2025;107:253–6. https://doi.org/10.1308/rcsann.2024.0100
- Williams GS. The treason of the long knives. Eye. 2024;38:1229–1229. https://doi.org/10.1038/s41433-023-02836-x
- Wyatt S, Bailey R, Moore P, et al. Equity of access to NHS-funded hip replacements in England and Wales: Trends from 2006 to 2016. The Lancet Regional Health Europe. 2022;21. https://doi.org/10.1016/j.lanepe.2022.100475
- Wyatt S, Parsons J. Socio-economic inequalities in access to planned hospital care: causes and consequences. The Strategy Unit 2021.
  - https://www.strategyunitwm.nhs.uk/publications/socio-economic-inequalities-access-planned-hospital-care-causes-and-consequences