Long before the pandemic, private sector providers were increasingly being used to take the pressure off NHS electives, freeing up Trusts' capacity to tackle more complex surgery. However, now for the first time since 1948, more hip and knee replacements are being done in the private sector than in the NHS. Candesic's **Dr Leonid Shapiro**, **Dr Michelle Tempest**, and **Fabio Ruffinoni** examine how the private sector has reached this milestone and whether it's a phenomenon that is here to stay?

Keeping the nation moving

hip and knee replacement in the independent sector

One in ten people in England are waiting for treatment by the NHS, many for routine elective operations, such as a hip or knee replacement. There are almost 6 million people on the NHS waiting list and those waiting for hip and knee operations are waiting the longest. Not only is the waiting list getting longer each month, with no sign of abatement, but those waiting for these routine orthopaedic operations are twice as likely to be waiting more than a year for their operation (see Figure One).

Waiting lists were going up before the pandemic, driven by a rapid increase in demand from an aging population with the NHS not being able to add capacity fast enough to cope. The problem of course has been exacerbated greatly by Covid and Candesic's view is that this problem won't be properly addressed for at least another five years. Elective activity is constrained by how much capacity is available after non-elective demand has been satisfied. Therefore, sustainable reductions in waiting times will take more than government 'catch up' money being thrown at the issue – it requires a system wide focus on keeping up with demand across the board.

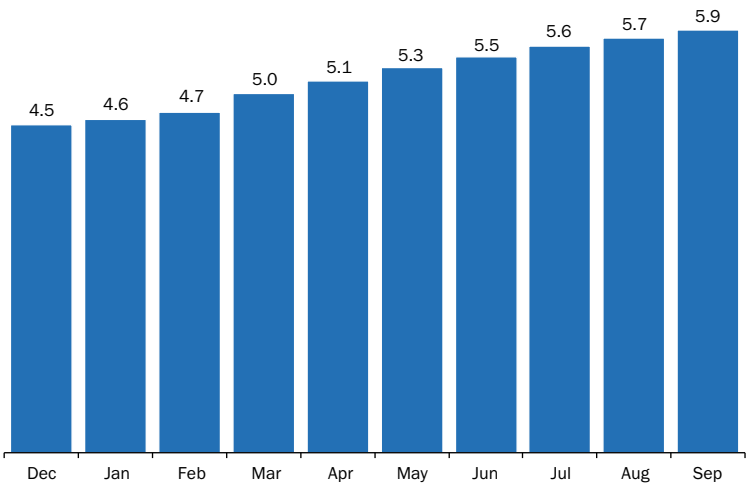
Why has the NHS not been able to get back to normal capacity levels while it seems the rest of society, from restaurants to bars, and now increasingly hotels and airlines, have? Part of the reason is that any capacity that is being created is being channelled to urgent and life-threatening procedures such as cancer care. This leaves people needing elective procedures, such as hip and knee replacement, to have to wait disproportionately. The result is that a segment of our population is taking the brunt of NHS capacity limitations.

Direct Covid care is now only a small factor that is limiting NHS capacity. Intensive Care Units (ICU) and some wards are still designated Covid zones. However, for elective procedures such as hips and knees, ICU usage is uncommon. So, what is limiting capacity?

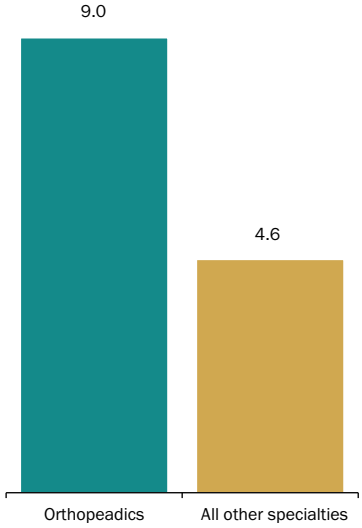
Global supply chains were in disarray and were not able to cope for some time after lockdown ended, due to things like

FIGURE ONE
NHS WAITING LISTS ARE GROWING AND ORTHOPAEDICS IS TAKING THE MAJORITY OF THE PAIN

TOTAL NHS PATIENTS WAITING FOR TREATMENT, MILLIONS, DECEMBER 2020–SEPTEMBER 2021



PROPORTION WAITING OVER ONE YEAR, %, SEPTEMBER 2021



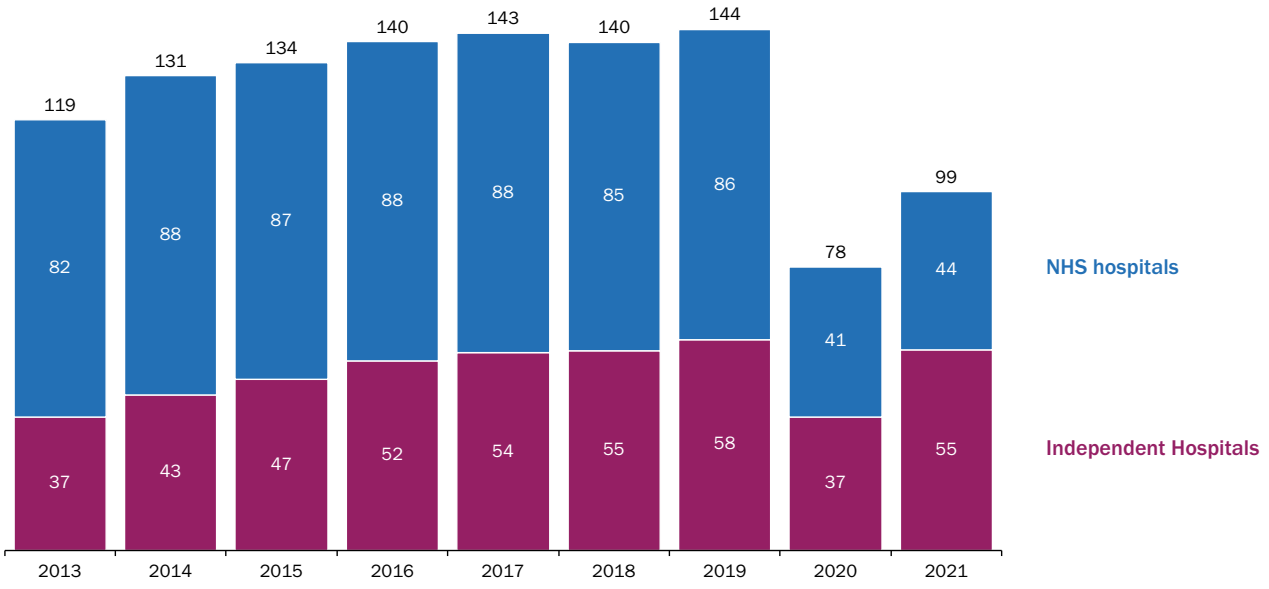
SOURCE NHS ENGLAND; CANDESIC RESEARCH AND ANALYSIS

ships being in the wrong places and at the wrong time, factories not being able to produce due to raw material shortages, and the challenges and complexities of our modern supply chains (like the shortage of one chip blocking the production of an entire car), just-in-time procurement leaving no buffers, and global procurement creating the need for not only reliable shipping but for foreign nations to be coming out of lockdown at the same time). Similarly, the NHS has been in disarray and still finds it challenging to return to pre-Covid capacity. Instead of a chip, it is missing staff – an anaesthesiologist who is tied up in ICU or a scrub nurse who is off sick or on another ward, that is causing entire theatre lists to be cancelled. Instead of raw material shortages upstream of a supply chain, it is the lack of diagnostics (because existing capacity is being sweated for such things as cancer care) that is impeding the clinical pathway upstream such that patients aren't getting to the point of having surgeries downstream. Unfortunately, unlike industry, it will take many years for the NHS to solve these 'supply chain' issues.

Candesic has analysed data across England from the National Joint Registry, which tracks hip and knee replacement

FIGURE TWO
ELECTIVE NHS VOLUMES HAVE FAILED TO RECOVER WHILE PRIVATE SECTOR VOLUMES ARE BACK TO PRE-PANDEMIC LEVELS

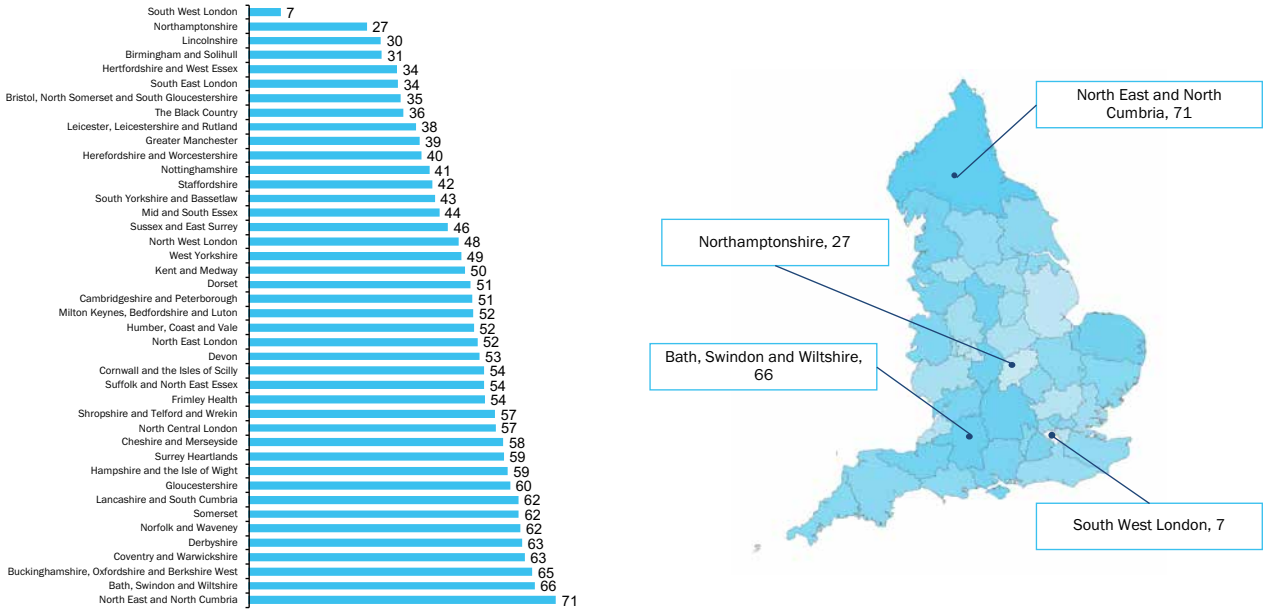
HIP AND KNEE REPLACEMENT SURGERIES IN ENGLAND, # 000s, FIRST EIGHT MONTHS OF EACH YEAR



SOURCE NHS ENGLAND; CANDESIC RESEARCH AND ANALYSIS

FIGURE THREE
THERE IS DISPARITY ACROSS ICSs IN NHS BOUNCE BACK RATES

DEGREE EACH ICS HAS RECOVERED NHS HIP AND KNEE ACTIVITY TO PRE-PANDEMIC VOLUMES, % RECOVERY TO PRE-PANDEMIC LEVELS (2021 RELATIVE TO 2019 LEVELS, FIRST EIGHT MONTHS)



SOURCE NATIONAL JOINT REGISTRY; CANDESIC RESEARCH AND ANALYSIS

procedures regardless of whether they were conducted in the NHS or independent sector. We found that for the first time in history, the independent sector did more replacements than the NHS (see Figure Two). But even before the pandemic, one can see from the figure that independent sector contribution to elective procedures had been increasing.

We can see from the data that independent sector throughput has returned to pre-pandemic levels, while the NHS is only operating at 50% of these levels for elective hips and knees. This issue is aggravated by an uneven distribution of how the NHS is managing to 'bounce back' following Covid surge. Regional analysis we have conducted (see Figure 3) shows huge variability in the extent ICS hip and knee throughput has returned to pre-pandemic levels, ranging from less than 10% to 70%.

A key problem, of course, affecting the ability for the NHS to 'bounce back' is the shortage of health care workers. Yinglen Butt, Royal College of Nursing's associate director of nursing has said 'workforce shortage is key to be tackled to allow recovery of backlog' and the industry landscape has 'staff shortage and burnout' which are leading to an 'epidemic of mental health and pressure'. Staff at independent hospitals have not all been subject to the same Covid pressures and operations have been able to sustainably return to pre-Covid levels. While still under pressure, nurses in independent hospitals focused on non-Covid procedures during lockdown while those in the NHS were under significantly more stress dealing with both Covid and non-Covid cases. Staffing shortages is a major reason for NHS capacity limitations. But again, consultants are much less likely to pull out of independent procedures, where they earn a significant amount of money which is directly linked to their activity, than from NHS procedures, where they get the same salary regardless of volumes. Furthermore, the independent sector typically runs its theatres at c.65% capacity to allow enough buffer to fit in surgical demand last minute. NHS theatres typically run at 95% capacity. Clearly it is far easier for independent hospitals to return or even exceed pre-pandemic surgical levels than the NHS.

In our view, NHS 'bounce back' and clearing of waiting lists will take at least five more years. This view is echoed by many NHS organisations we have interviewed throughout projects we have conducted in 2021 (see Figure Four). But could it potentially take a lot longer? And is perhaps the need to use greater capacity in the independent sector a phenomenon that will permanently stay? Candesic's work on clinical demand suggests an increase in underlying demand of over 30% in the next decade (see Figure Five). If the NHS fails to build 30% additional capacity - which is highly unlikely given capital expenditure constrains and management's focus on 'fighting the fire' of here-and-now waiting lists rather than future-proofing/planning capacity – Covid catch-up and the tsunami of underlying clinical demand will overwhelm the NHS well into the 2030s.

Will the £5.9bn the government has promised to the NHS in England to reduce waiting lists have much of an impact? It may, but it's likely not to be enough. About £2.5bn of this will be spent on increasing diagnostics (through building diagnostic hubs and buying imaging equipment) but where will the radiologists needed to support this additional capacity come from? About £1.4bn will be spent on surgical hubs and inpatient beds and equipment. This will increase NHS procedure capacity but again where will the anaesthesiologists and surgeons come from? Finally, £2bn will be spend on IT and digital tech, which is the least labour constrained and likely to act to increase efficiency in the system.

There is also no slowdown in demand for privately paid surgeries. There are plenty of insured and self-pay patients who could not get necessary surgery during lockdown who are now compounding the underlying demand from new patients. Also, long NHS waiting lists are forcing many patients to go private and self-pay, something independent hospitals are very keen to accommo-

FIGURE FOUR
INTERVIEWS WITH NHS STAKEHOLDERS AND EXPERTS SUGGEST THAT THE BACKLOG CREATED BY COVID WILL PROBABLY TAKE 5+ YEARS TO CLEAR

'The amount of patients on our waiting lists has increased so much since the pandemic, it is ridiculous. It will take probably around five years to get back to where we were at the beginning of the year.' **CEO, NHS Trust**

'We have made a lot of improvement on waiting times in recent years and it will take us a number of years to recover that and it will take investment and resources also.' **CEO, NHS Wales**

'Addressing backlog and underlying growth will take at least three years, but likely longer before we return to normal operational levels.' **ICS lead, NHS Trust**

'It could be four years before waiting times get back to pre-Covid levels. We could see that. It's certainly years, not months.' **CEO, NHS Trust**

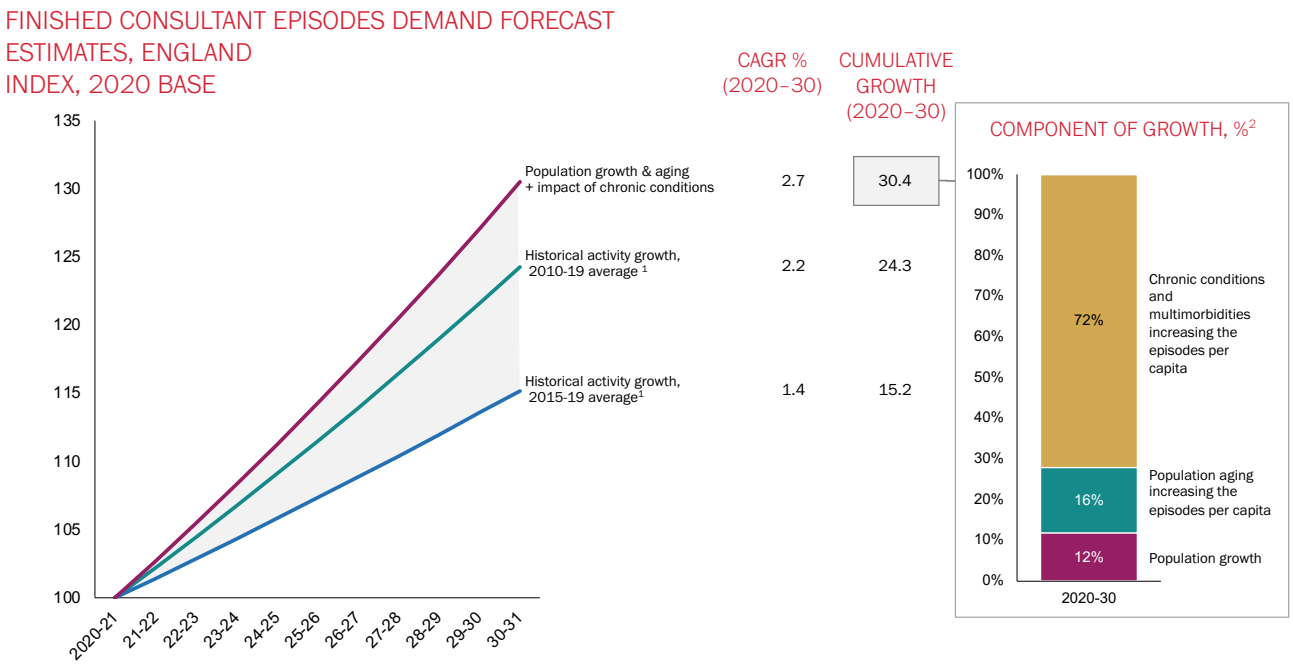
SOURCE CANDESIC INTERVIEWS

date due to the much higher margin than insured or NHS patients.

The result is that independent providers are mopping up elective surgery for both public and private payers. Over the next few years, we expect that the NHS will increasingly rely on the independent sector and at the same time more would-be NHS patients will go private as waiting lists will stay high for some time. The result is that independent hospitals should be braced for higher volumes with opportunities to expand and be prepared to run a model with theatre utilisation running at perhaps 80 or 85%. They are already exploring doctor employment and other innovative models to secure key workforce to reduce risk of staffing being a bottleneck. And they are getting involved in ICS activities, diagnostic and treatment hubs, and other NHS initiatives created to smooth clinical pathways upstream. To the extent that independent operators can invest and get involved in these upstream innovations, it will serve to drive bread-and-butter volumes at their hospitals in the future.

Much is resting on us all working together in a system wide approach with agreement across policy makers (central and local), innovations (digital and human), commissioners (NHS England, ICSs, CCGs and LAs), and providers (NHS, private and charity). Until then, remember to 'be kind' to the slow walker on your next commute to work; it's highly likely they are on the waiting list.

FIGURE FIVE
UNDERLYING DEMAND IS EXPECTED TO INCREASE BY c.30% OVER THE DECADE



NOTES 1 FINISHED CONSULTANT EPISODES (FCES) WITH TREATMENT OR PROCEDURE **2** USING CURRENT NUMBER OF FCES BY AGE GROUP AND APPLYING TO ONS POPULATION PROJECTIONS FOR 2030, THEN COMPARING TO IFS TOTAL ACUTE CARE GROWTH FIGURE TO ESTIMATE GROWTH DUE TO INCREASE OF CHRONIC CONDITIONS
SOURCE INSTITUTE FOR FISCAL STUDIES & THE HEALTH FOUNDATION; THE KING'S FUND; NHS ENGLAND; ONS; CANDESIC RESEARCH AND ANALYSIS