Can pay regulation kill? Evidence from English hospital trusts

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Centrally determined pay for public sector workers like NHS nurses acts as a maximum wage in some labour markets. Here is a summary of a new study arguing that the resulting hiring difficulties are causing patient deaths.

Economists have long warned of the unintended consequences of labour market regulation (Botero et al. 2004). Some things that seem *fair* – like paying people the same wage for doing the same job regardless of where they work – may turn out to be *foul* in practice. Although people often worry about the minimum wage pricing people out of jobs, a regulation that may impose a maximum wage and price people out of jobs has received little attention. This pay regulation is centralised wage-setting, where pay is mandated to be almost the same across different labour markets, effectively imposing a maximum wage on people living in areas where labour markets outside the regulated sector are strong.

This kind of centralised pay-setting happens in many public sector labour markets like health, teaching and the police. Nowhere is centralised pay-setting more important than in the UK National Health Service (NHS). More than a quarter million nurses in England have their pay set by a single pay review body. The process allows some local flexibility, but in practice the gap between the wages paid to a nurse in a low outside wage area – such as Newcastle in the North East – and a high wage area –such as London –is small compared to the pay gap between women who are not nurses. In recent research, we examine in detail how centralised pay-setting for nurses in the NHS affects hospital performance by tracking changes in the outside wage and changes in performance in over 100 English hospitals over a six-year period (Hall et al. 2008).

Pay and performance

Common sense would say that hospitals located in places where outside employment opportunities are better are going to struggle to recruit, retain and motivate staff. We find exactly this: in areas where the outside labour market is strong – where the wages of nurses are lowest compared with their non-nurse counterparts – nurse vacancy and turnover rates are higher and fewer qualified nurses work in the NHS.

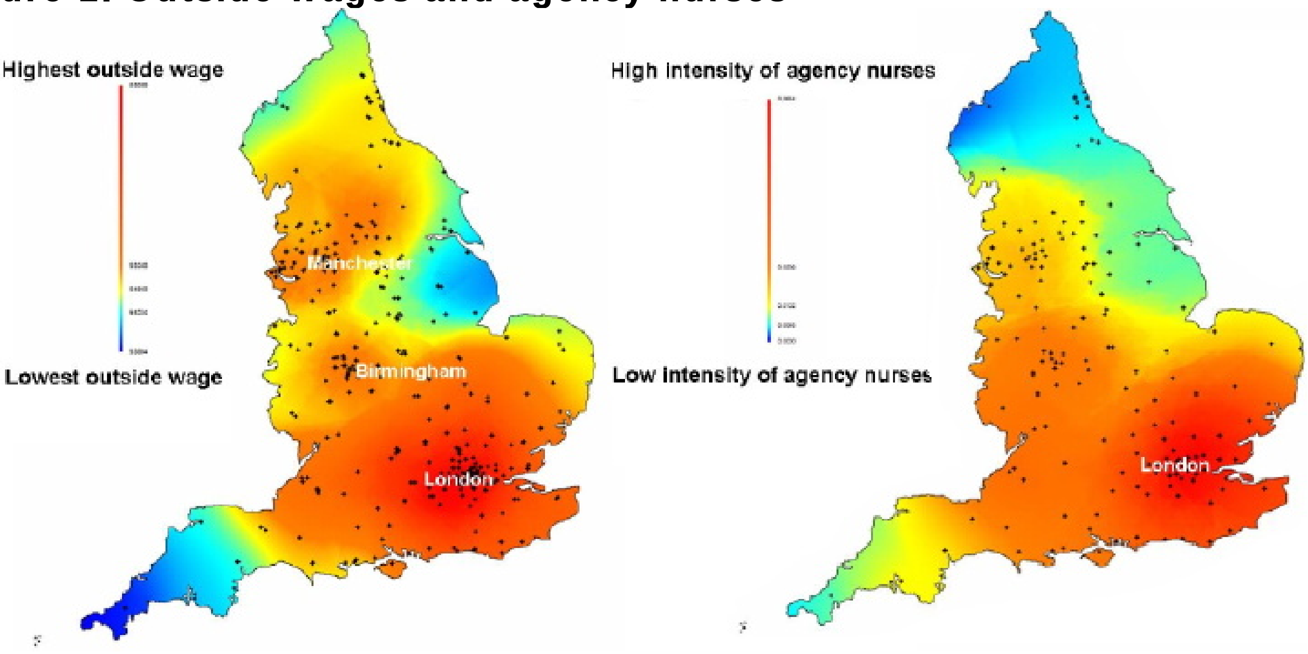
But these staffing problems are not just confined to the human resources department: more worryingly, they feed through into a lower quality of service provision and poorer outcomes for patients. Hospitals in areas where the outside labour market is strong have lower volumes of activity relative to their staffing levels. They also have higher fatality rates among patients who are admitted with emergency heart attacks.

None of these effects are present in firms operating in the private sector where they can alter wages to reflect local labour market conditions. Nor do they appear to arise because hospitals in high cost areas face greater financial problems or have patients who are sicker: in fact, patients in many high external wage areas generally have better health than those in low external wage areas. These results are therefore not due to general differences between high and low wage areas.

Temporary nurses

One possible reason for the poorer outcomes in hospitals located in high wage areas is that they find it difficult to recruit the permanent staff they need, forcing them to rely disproportionately on temporary agency staff. These nurses can be paid at a higher rate to get around the pay regulation. But they often tend to have less experience and training, and they will not know the hospital as well as someone on a permanent contract. The figure below shows the link between outside wages and use of agency nurses. In the first map, the areas with the highest outside wages are marked in red and those with the lowest outside wages are marked in blue: it is clear that the large cities and the South East have higher outside wages. The second map shows the intensity of use of agency nurses, and the spatial distribution is very similar to that of the first map: where outside wages are high, use of agency nurses is high. Our statistical analyses confirm that hospitals with greater use of agency nurses have higher death rates.

Figure 1. Outside wages and agency nurses



Fatal costs

Centralised pay regulation means hospitals in high wage areas treat fewer patients and these patients have poorer health outcomes. These effects are not trivial: the results suggest that a 10% increase in the gap between the wages paid to NHS nurses and those paid to women working in the private sector locally raises the fatality rate among people admitted with a heart attack by 5%. The size of this effect is not dissimilar to the reductions in heart attack fatalities brought about by the greater use of aspirin and other clot-busting drugs in recent years.

Some may say this is a price worth paying for equality. But equality is in the eye of the beholder. Living expenses are much higher in London and the South East of England, so the same salary in London buys a much lower standard of living than in the far north of England. Since 2002, the last year analysed in our study, there have been some relaxations in the rules to allow more recruitment bonuses and cost-of-living allowances. But it is still the case that public-sector workers are taking a much bigger effective pay cut compared with similarly skilled workers in lower-cost areas, and this appears to be harming productivity. In hospitals, that means harming patients. Pay regulation can be a killer.

References

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