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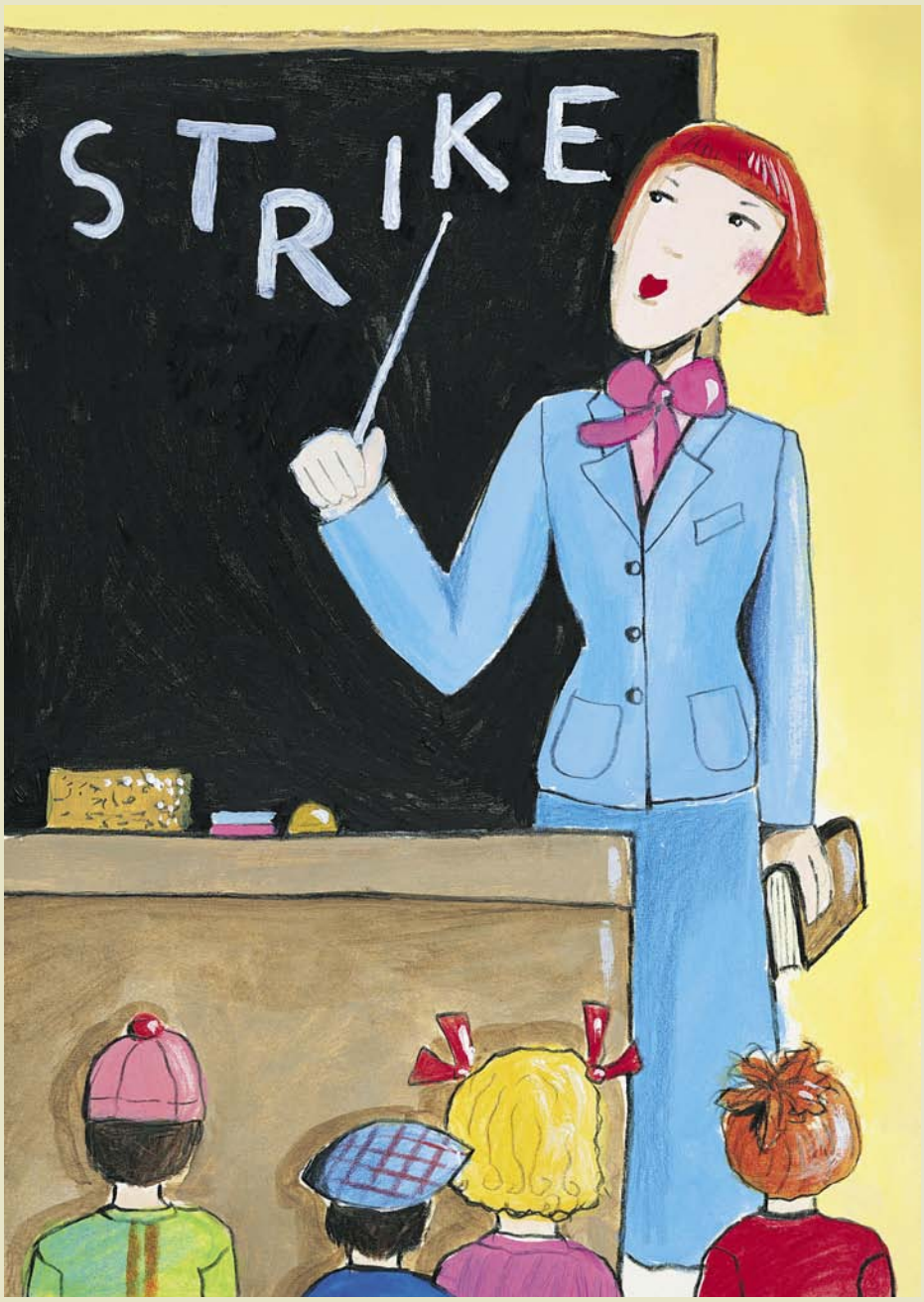

Public sector pay

ALSO IN THIS ISSUE:

Third sector delivery of public services

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Contents

Public sector pay is back in the headlines, with strike action from teachers and major discontent in other sectors. This issue of *Research in Public Policy* features four articles exploring issues around pay differentials with the private sector, incentive pay and pay regulation.

We also feature a series of articles by academics, policy-makers and service providers on the potential advantages and disadvantages of increased involvement of the third (charitable) sector in the delivery of public services.

To listen to an audio interview with the author, visit: http://www.bris.ac.uk/Depts/CMPO/audio/main.htm

Public sector pay

Public sector pay is back in the headlines, with strike action from teachers and major discontent in other sectors. It is perhaps not widely realised that public sector workers are now on average paid more than their counterparts in the private sector and that this is now even true of men. For women, the public sector has for a long time been a higher paying employer.

Furthermore, public sector pay operates in a number of different ways than in the private sector. In particular, a smaller proportion of pay comes through incentive payments or bonuses, and pay gradients are much flatter in the public sector, notably across different parts of the country. The following four articles explore these issues.

Karen Mumford and Monojit Chatterji examine the public sector pay premium for men and suggest that there is effective pay parity among higher occupations but a large pay premium in less skilled sectors. But around half of this premium is explained by public sector workers being better educated and more experienced.

Hugh Gravelle and co-authors look at a recent attempt to introduce greater incentive pay into public sector wages, in this case for doctors since 2004. This new contract (called the 'quality and outcomes framework') offers incentives for doctors to hit treatment targets.

The authors explore first whether the new contract has led to higher pay and job satisfaction – both affirmative – and then its behavioural consequences, both intended and unintended. The intended impact on treatment outcomes is at best unclear, partly due to poor data on the situation before the reform was introduced.

But there is much clearer evidence of 'gaming' by doctors to maximise pay without increasing treatment. This mirrors other evidence of incentive payments often having unintended consequences when the contracts or targets are not perfectly aligned with objectives.

But the unintended distorting effects of pay systems are not limited to pay incentives; they are also at play in much older systems. National pay scales lead to little or no variation in pay levels across the country, apart from London weighting. Carol

Propper and co-authors show that this has unintended consequences for the quality of care in hospitals.

Parts of the country with higher wages outside the health sector (and higher costs of living) see substantially reduced survival rates from heart attacks and similar acute care. The authors argue that it is common sense to see difficulties in recruiting and retaining high quality, experienced staff as behind these differences, with a 10% differential in the outside wage leading to a very large 5% reduction in survival rates.

Natalie Tarry argues that the same applies in other areas and not just in relation to outside pay levels but also to the difficulties associated with doing a job. She notes that public services in deprived areas have greater problems in recruiting and retaining experienced quality staff, having higher staff turnover and vacancies.

In another article in this issue of *Research in Public Policy*, Sarah Smith and co-authors find strong evidence for a public sector ethos in the caring sectors. Public sector workers care about the outcomes in education, health and caring services and work harder than the equivalent people in the private sector. Maintaining this 'pro-social' behaviour when introducing market-led pay is far from straightforward.

Explaining the public sector earnings gap

On average, full-time British male public sector employees earned 11.7% more than their private sector counterparts in 2004. *Monojit Chatterji* and *Karen Mumford* investigate the reasons for this 'public sector earnings gap'.

Our analysis of the Workplace Employee Relations Survey (WERS) conducted in 2004 indicates that there is a significant pay gap between the public and private sectors, with full-time male public sector employees earning 11.7% more on average than their private sector counterparts.

We investigate a variety of possible explanations for this pay differential, including differences in the skills of workers in the two sectors as well as other factors that may affect their productivity, such as the nature of the job and the workplace.

Table 1 divides workers into high skilled and low skilled occupations, and within these groups splits them into public and private sector employees. It is immediately clear that there are large differences between the skilled and low skilled, not just between the public and private sectors. This implies that most of the wage gap may be due to skill differences related to education and experience.

This is not to exclude other factors that may also affect wages. Different types of jobs and workplaces can all affect the productivity of workers for a given level of education and this will be reflected in different rates of pay.

On average, men in the public sector earn more than men working in the private sector

Our analysis isolates how much of the wage gap is due to differences in educational attainment, work experience and job characteristics. We find that the most important determinant of wages is the level of education of a worker, with the type of occupation being the next most important factor. But 11% of the total gap remains unexplained.

While there is some evidence of workplace segregation in the private sector – with high paid workers concentrating in higher paying workplaces and *vice versa* for the low paid – there is little evidence that different characteristics are rewarded more in some jobs than others across either the public or private sector. But there are still some differences between the two sectors. For example, there is a pay penalty in the private sector on the basis of ethnic origin that is absent in the public sector.

Our results indicate that a substantial proportion of the earnings gap between the public and private sectors is associated with occupation. To explore further the implications of this finding, we concentrate our analysis on the extreme ends of the occupational categories in the two broad sectors. The three upper occupational categories – managerial, professional and technical – are aggregated into one 'highly skilled' category. For contrast, we also focus on the occupational group of 'low skilled' workers.

Highly skilled workers in the private sector earn a substantial premium over their public sector counterparts

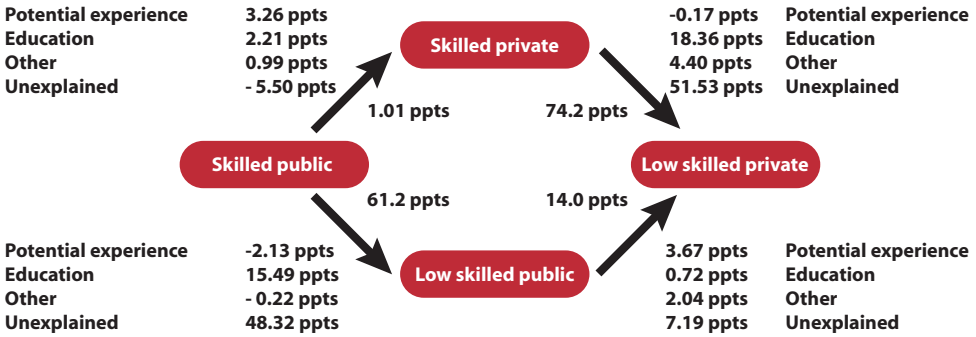
Figure 1 lays out the four sub-samples: public sector highly skilled, private sector highly skilled, public sector low skilled and private sector low skilled. Each total bilateral earnings gap is presented next to an arrow indicating the direction of the comparison, from higher paid to lower paid.

Table 1: Characteristics of full-time male employees

	High skilled		Low skilled	
	Public	Private	Public	Private
Wage (£/hour)	12.55	12.43	6.82	5.93
Potential experience (years)	25.45	22.48	29.33	24.72
Previous year's training (days)	4.51	2.89	1.81	1.60
Education measures:				
None recognised	10%	11%	46%	49%
Degree	34%	34%	4%	7%
Postgraduate	20%	13%	1%	2%
Fixed term contract	5%	2%	1%	3%
Current job tenure (years)	6.20	5.37	6.66	4.72
Trade union member	72%	14%	82%	25%

Source: WERS 2004

Figure 1: Decomposition of the earnings gaps – comparing highly skilled and low skilled full-time male employees in the public and private sectors



Source: WERS 2004
Note: each total bilateral earnings gap is presented next to an arrow indicating the direction of the comparison. In each case the contribution of each group of variables is evaluated using the parameters from the model for the higher earnings group. All figures are expressed in log percentage points.

Figure 1 shows that the public sector pay premium is modest for the highly skilled at 1 percentage point (ppts), considerably smaller than the equivalent gap for the low skilled (14 ppts). In contrast, the wage gap between skill levels within either the public or the private sector is considerable. In the public sector, the highly skilled get paid 61.2 ppts more than their low skilled counterparts, while the highly skilled private sector to low skilled private sector gap is 74.2 ppts.

Figure 1 also indicates what drives the differences for the occupational skill groups across sectors. For example, the 1 ppts earnings gap between highly skilled public and private sector employees can be decomposed into the component explained by differences in their potential experience (3.26 ppts); differences in their formal education (2.21 ppts); differences in their other characteristics (0.99 ppts); and an unexplained component of minus 5.50 ppts. The four components constitute the total earnings gap of 1 ppt.

The earnings gap between highly skilled workers in the public and private sectors is therefore due to the former having more productive characteristics (or at least characteristics that are more likely to be associated with higher pay), especially potential experience and education.

Low skilled public sector workers earn a premium over their private sector counterparts

The size and sign of the negative unexplained component suggest that highly skilled employees in the private sector are being relatively over-rewarded for their characteristics. Given the differences in education and experience, we would expect the public-private sector wage gap for highly skilled workers to be substantially larger.

Figure 1 shows similar analyses for the three other bilateral earnings gaps. These confirm that the majority of the public sector pay premium is again associated with public sector workers being more likely to have individual characteristics associated with higher pay and to the fact that they are working in higher paid occupations. There are also substantial unexplained earnings gaps between the highly skilled and low skilled; and the unexplained components in these gaps are very similar regardless of sector.

Our results suggest that working conditions across these workplaces do not markedly differ – or if they do, not in a way that affects wages. Public sector employees are more likely to have individual characteristics associated with higher pay.

Once these and other factors are taken into account, we find that for the highly skilled, it is private sector employees who earn a substantial premium over their public sector counterparts. By contrast, for the low skilled group, public sector employees earn a premium over their private sector counterparts.

But earnings inequality between the highly skilled and the low skilled is similar in the two sectors. In both, the premium for being in the highly skilled group compared with the low skilled group is considerable at over 60%.

This article summarises *Public-Private Sector Wage Gaps for British Full-time Male Employees: Across Occupations and Workplaces* by Monojit Chatterji and Karen Mumford, Office for Manpower Economics Research Report (2007).

Monojit Chatterji is at the University of Dundee. Karen Mumford is at the University of York.

Paying doctors for quality

The NHS 'quality and outcomes framework', introduced four years ago, aims to link GPs' pay to the quality of health care they deliver. *Hugh Gravelle, Matt Sutton* and *Ada Ma* examine the intended and unintended consequences of the incentive scheme and draw some policy lessons for pay for performance schemes.

Governments and health care insurers all over the world struggle with the problem of ensuring that the care they fund is of good quality. As electronic record systems have improved, there has been increased interest in linking the pay of doctors to measures of the quality of care they deliver. In April 2004, the NHS introduced the 'quality and outcomes framework' (QOF) for UK general practices, one of the most elaborate quality incentive schemes ever introduced in any health care system (see Box 1).

The effects on quality

The QOF resulted in payments of over £1,000m a year to general practices. But it is difficult to estimate its effect on the quality of care. The NHS only collected routine data on most of the activities incentivised by the QOF *after* it was introduced. There was no piloting or trialling of the scheme, which was introduced simultaneously for all practices in all four constituent countries of the UK.

Figure 1 shows that in a sample of 500 practices, there was an upward trend in the quality indicators that became incentivised *before* the QOF was introduced and any effect of the QOF was modest.

Figure 2 compares the trends in both incentivised and not incentivised quality indicators for coronary heart disease (CHD) using similar data from Scottish practices. Detailed statistical comparison of trends in indicators for CHD and other diseases confirms what Figure 2 suggests: there was an underlying upward trend both in indicators that were incentivised by the QOF and in those that were not, and the QOF led to a small additional increase in the incentivised indicators (see Sutton et al, 2007).

Box 1: The quality and outcomes framework for general practices in 2004/5 and 2005/6

- Introduced April 2004
- 146 quality indicators
- 1,050 quality indicator points
- Payment per point varied with relative practice prevalence and list size
- £76 per point for average practice in 2004/5 yielding £80,000 per annum potential additional gross income
- £125 per point for average practice in 2005/6 yielding potential £130,000 per annum per average practice

Figure 1: Trends in some incentivised QOF clinical quality indicators for a panel of 498 English practices (Hippisley-Cox et al, 2006)

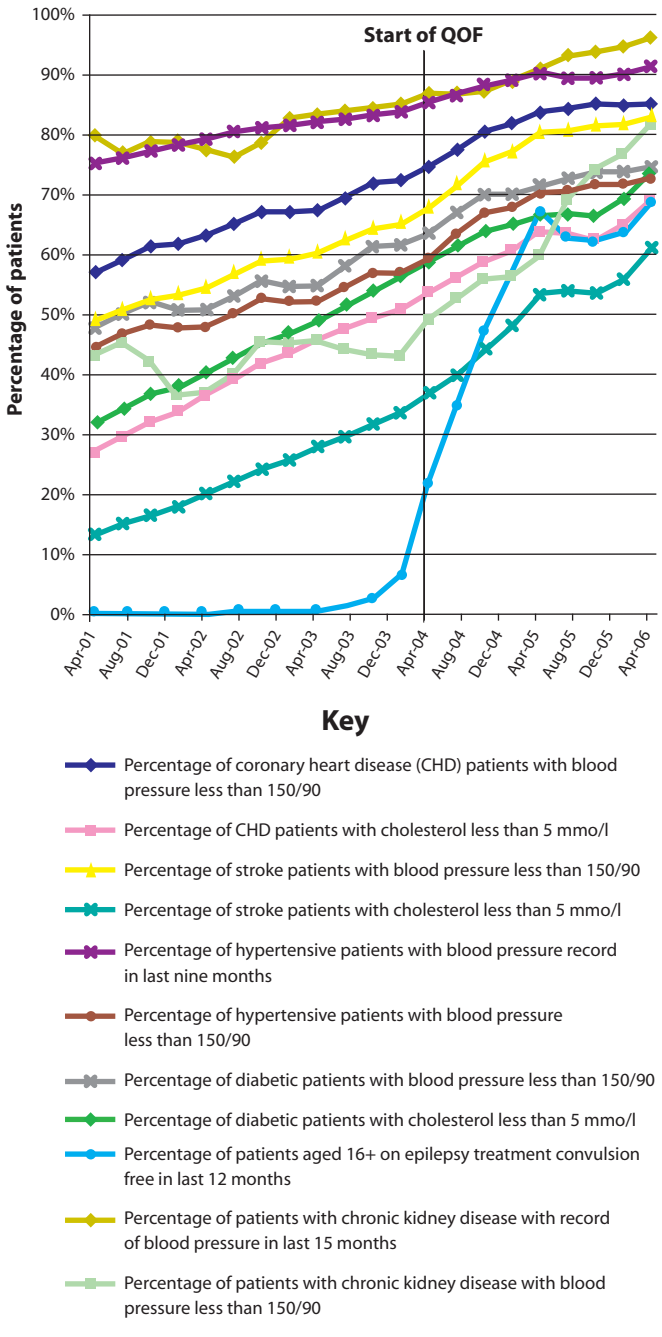
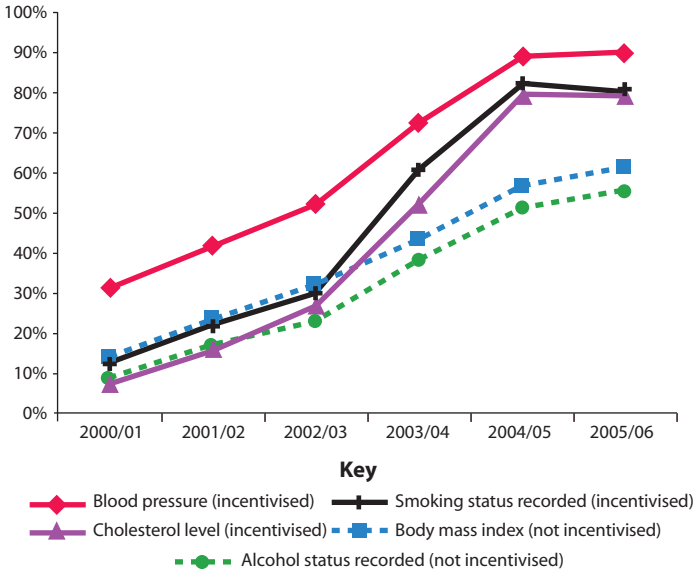


Figure 2: Recording of incentivised and not incentivised risk factors for CHD patients for a panel of 315 Scottish practices (Sutton et al, 2007)



The effects on general practitioners

Practices had high QOF point scores. In England, they achieved 91.3% of the 1,050 available per practice in 2004/5, 96.2% in 2005/6 and, after some minor amendments to the scheme, 95.4% of the 1,000 available in 2006/7.

Practices received considerable increases in gross income. Most are partnerships of GPs and have to meet the costs of running the practice out of their gross income before distributing their net profits to the partners. Table 1 shows that the rate of growth of net profits per GP (including both full and part-timers) increased markedly during the first year of the QOF.

At the same time, GPs' normal hours worked and job pressure fell sharply. Unsurprisingly their job satisfaction increased. The QOF appears to have been a very good deal for GPs.

Table 1: Trends in GP outcomes

	2000/1	2001/2	2002/3	2003/4	2004/5
Job satisfaction	4.03	-	-	4.58	5.17
Job pressure	3.52	-	-	3.37	3.07
Hours/week	47.4	-	-	44.5	40.8
Hours/week on call	15.3	-	-	13.0	14.0
Net profit (£s)	64,040	66,114	69,771	77,597	95,880
Net profit increase on previous year	11.1%	3.2%	5.5%	11.2%	23.6%

Sources: satisfaction, pressure, hours from GP Worklife Surveys (Whalley et al, 2007); net profit (Review Body, 2007)

Unintended consequences

In the first two years, around half of potential QOF revenue was attached to 65 indicators of clinical quality in 11 disease areas. The indicators are measured as the ratio of the number of patients for whom the practice has achieved some outcome divided by the number reported eligible for that outcome.

The quality and outcomes framework generated modest improvements to the quality of primary health care

Table 2 has some illustrative examples. Indicator BP 5 is the proportion of eligible patients with hypertension whose blood pressure is controlled. Practice revenue (points times price-per-point) from a ratio indicator increases in line with the proportion treated, between a lower threshold (0.25) and an upper threshold (0.70 in the case of BP 5).

All indicators have the same lower threshold but the upper threshold varies between 0.50 and 0.90. No revenue is earned from the indicator if the proportion is less than 0.25. Importantly, increases in the proportion treated above the upper threshold generate no additional income.

Expressing a clinical indicator as a ratio is intended to provide an incentive to practices to increase the numerator, that is, to increase the number of treated patients. But the denominator for an indicator in a disease domain – the number eligible for treatment – is the number of patients with the disease minus the number of patients the practice chooses to deem ineligible for that indicator ('exception reporting').

Table 2: Clinical quality indicators from the hypertension domain for QOF 2004/5 and 2005/6 (all lower thresholds in all disease domains are 25%)

Indicator	Max points	Upper threshold
BP 1: The practice can produce a register of patients with established hypertension	9	
BP 2: The percentage of patients with hypertension whose notes record smoking status at least once	10	90%
BP 4: The percentage of patients with hypertension in which there is a record of the blood pressure in the past nine months	20	90%
BP 5: The percentage of patients with hypertension in whom the last blood pressure (measured in last nine months) is 150/90 or less	56	70%

Table 3: Exception reporting in Scottish practices 2005/6

Disease domain	Number of indicators	Maximum points available	Average exception reporting in 2005/6: By practices *below* the upper threshold in 2004/5	Average exception reporting in 2005/6: By practices *above* the upper threshold in 2004/5
Asthma	6	65	15.16	10.79
Cancer	1	6	7.32	6.73
CHD	11	95	7.48	8.15
COPD	7	40	10.89	8.70
Diabetes	17	93	9.11	7.41
Epilepsy	3	14	16.70	9.84
Hypertension	4	96	4.99	3.90
Hypothyroidism	1	6	0.74	0.87
LVD	2	16	12.24	8.47
Mental health	4	34	6.80	5.51
Stroke and TIA	9	27	10.03	7.69
Total	65	492		

Exception reporting rate is exceptions per 100 prevalent patients.
Average exception reporting for domain is weighted by practice domain prevalence and by the maximum points for the indicator.

Patients can be reported as unsuitable for an indicator on a variety of grounds, for example, if they are terminally ill, frail or cannot tolerate the medication. The practice can also exception report patients who have failed to attend. So a practice can increase the proportion of patients for whom an indicator is achieved by increasing the number of patents it exception reports.

Our research uses the structure of the incentive scheme to test whether some practices deliberately increased the number of exception reports to increase their indicator scores. By 'gaming' the system in this way, practices that otherwise expect to be below the upper threshold for an indicator can increase their revenue.

Practices that expect to be above the upper threshold will have no financial gain from increasing the proportion of eligible patients for whom the indicator is achieved. So there is an incentive for practices to overstate exceptions when the practice expects to be below the upper threshold but not when it expects to be above the upper threshold.

The new funding arrangements increased GPs' incomes and reduced their working hours

The financial reward for achievement on an indicator increased by 75% between 2004/5 and 2005/6. So for practices expecting to be below the upper threshold for an indicator in 2005/6, there was a considerable increase in the financial reward for increasing the proportion of eligible patients treated. For practices expecting to be above the upper threshold in 2005/6, the extra financial reward from increasing the ratio treated was zero.

This suggests that practices that were below the upper threshold in 2004/5 would have higher reported exception rates in 2005/6 than practices above the upper threshold in 2004/5. Practices above the upper threshold in 2004/5 would only have to maintain their behaviour to maximise their 2005/6 revenue from the QOF.

Table 3 compares the exception reporting rates for two groups of practices in 2005/6: those that were below and above the threshold in 2004/5. In nine of the 11 disease domains, practices below the threshold in 2004/5 had higher exception reporting rates in 2005/6 than those above the threshold in 2004/5.

In more detailed analysis allowing for differences in the characteristics of practices and their patient populations, we examine the 65 clinical indicators individually. We find that for 60 of the 65 indicators, practices below the threshold in 2004/5 had higher exception reporting rates in 2005/6 than those that were above the threshold in 2004/5.

For the 14,384 of the 56,980 practice-indicator cases where achievement was below the threshold in 2004/5, the average exception rate in 2005/6 was 8.55%. We calculate that if their achievement had been above the upper threshold in 2004/5, reported exceptions would have been 7.25%.

The number of exemptions was therefore 17.9% higher than we would have expected in the absence of any manipulation. So the incentive to overstate exceptions appears to have led to manipulation in the 25% of practice-indicator cases where practices were below the upper threshold in 2004/5.

Over-achievement: evidence of professionalism?

Quality was trending upwards before the introduction of the QOF, suggesting that the majority of practices are concerned about patient well-being, not just financial rewards. Over-achievement in the QOF is further evidence of GP professionalism.

Those practices that were above the upper thresholds in 2005/6 could have reduced the number of patients that achieved the required outcome by 11.8% without reducing their revenue. But without baseline data, there is no evidence of whether previously high performers reduced or maintained their performance after the introduction of the QOF.

Which types of practices delivered better quality?

We also investigate the factors that affected the difference between the levels of quality delivered by practices. We define delivered quality as the number of patients for whom a clinical indicator was achieved divided by the number of patients with

Box 2: Factors associated with differences in quality across practices

Delivered clinical quality was **higher**
- In more rural areas
- Where there was more potential competition for patients among practices
- In practices with smaller numbers of patients

Delivered clinical quality was **lower**
- In areas with lower income
- In areas with a higher ethnic minority proportion
- In practices with a higher turnover of patients
- In practices where the average age of GPs was higher

the relevant condition. Our findings are summarised in Box 2. Holding a large number of other factors constant, quality appears to be lower in more deprived areas and in areas with a higher proportion of the population from ethnic minorities. This is not surprising in the light of previous studies of equity in health care with respect to deprivation and ethnicity.

But the effects of these factors are not large. In the absence of evidence on the magnitudes of these effects before the QOF was introduced, we do not know if the QOF increased or reduced inequity.

Lessons from the QOF

The QOF appears to have increased the rate at which the quality of general practice care across a number of important disease areas was improving. But the effect was quite modest and the financial cost of the QOF exceeded expectations.

GPs can manipulate the indicators by which they are assessed by increasing the number of ineligible patients

The reforms to GP funding in April 2004 resulted in significantly higher income for GPs, and it seems likely that this led to GPs working fewer hours. There was a modest improvement in those indicators that were specifically linked to payment. But we find evidence consistent with the idea that some GPs increased the number of patients deemed ineligible for treatment to improve their scores and payment.

The UK's experience with the QOF suggests that major reforms to payment systems should be trialled and evaluated before being rolled out nationally. Such pilot schemes with baseline measurements would have revealed if quality was already improving and may have enabled the taxpayer to get better value for money from the scheme.

More considered design would also have revealed potential problems with exception reporting and other peculiar details of the scheme, such as the lack of transparency in the link between effort and reward (see Guthrie et al, 2006).

This article summarises 'Doctor Behaviour under a Pay for Performance Contract: Evidence from the Quality and Outcomes Framework' by Hugh Gravelle, Matt Sutton and Ada Ma, Centre for Health Economics Research Paper No. 34 (http://www.york.ac.uk/inst/che/pdf/rp34.pdf).

Hugh Gravelle is at the Centre for Health Economics at the University of York. Matt Sutton is at the Health Methodology Research Group at the University of Manchester. Ada Ma is at the Health Economics Research Unit at the University of Aberdeen.

Further reading

Stephen Campbell, David Reeves, Evangelos Kontopantelis, Elizabeth Middleton, Bonnie Sibbald and Martin Roland (2007), 'Quality of Primary Care in England with the Introduction of Pay for Performance', *New England Journal of Medicine* 357(2): 181-90.

Bruce Guthrie, Gary McLean and Matt Sutton (2006), 'Workload and Reward in the Quality and Outcomes Framework of the 2004 General Practice Contract', *British Journal of General Practice* 56: 836-41.

Julia Hippisley-Cox, Yana Vinogradova and Carol Coupland (2007), *Time Series Analysis for Selected Clinical Indicators from the Quality and Outcomes Framework 2001-2006*, Health and Social Care Information Centre.

Review Body on Doctors' and Dentists' Remuneration (2007), *Thirty-Sixth Report 2007*, Cm 7025 (http://www.official-documents.gov.uk/document/cm70/7025/7025.pdf).

Martin Roland (2004), 'Linking Physicians' Pay to the Quality of Care – A Major Experiment in the United Kingdom', *New England Journal of Medicine* 351: 1448-54.

Matt Sutton, R Elder, Bruce Guthrie and G Watt (2007), 'What Quality Improvements did the Quality and Outcomes Framework Produce?', paper presented to the UK Health Economists' Study Group, Brunel University.

Diane Whalley, Hugh Gravelle and Bonnie Sibbald (2008), 'Impact of the New General Medical Services Contract on General Practitioners' Job Satisfaction and Perceptions of Quality of Care in the UK', *British Journal of General Practice* 58: 8-14.

Can pay regulation kill?

Nurses' pay in England is set centrally with little local variation. This means that hospitals in high cost areas like London and the South East struggle to recruit and retain staff. As a consequence, our research finds that they treat fewer patients and have higher fatality rates among patients admitted with emergency heart attacks.

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 about 5%.

Centralised pay setting happens in many public sector labour markets like health, teaching and the police. People often worry about the minimum wage pricing people out of jobs. But when pay in a sector is set to be almost the same across the country, it effectively imposes a maximum wage on people living in parts of the South East where labour markets are tight, pushing up wages outside the public sector.

Centralised pay setting for nurses means that hospitals in high cost areas struggle to recruit and retain staff

Nowhere is centralised pay setting more important than in the NHS. More than a quarter of a 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 Newcastle and one in London is small compared with the pay gap between women in those areas who are not nurses.

We looked at 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 hospital trusts over a six-year period. Common sense would suggest that hospitals located in places where outside opportunities are better are going to struggle to recruit, retain and motivate staff.

This is exactly what the study finds: in areas like London where the outside labour market is strong – where the wages of nurses are lowest compared with their non-nurse counterparts – nurse vacancy rates are higher and fewer qualified nurses work in the NHS.

But these recruitment difficulties are not confined to the human resources department. More worryingly, they feed 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.

We checked to see if this was a problem common to other firms who do not have centrally regulated pay, but none of these effects are present in firms operating in the private sector. Nor do they seem 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.

One key problem is that hospitals that find it difficult to recruit permanent staff rely more 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 will not know the hospital as well as someone on a permanent contract. The maps below show the link between outside wages and use of temporary 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.

***Carol Propper* and colleagues present evidence on the impact of regulating the labour market for nurses on the performance of hospitals in England.**

These maps suggest that one route by which poorer outcomes occur in high cost areas is their greater use of agency nurses. Our detailed statistical analyses confirm this.

Hospitals in high cost areas have higher fatality rates among patients admitted with emergency heart attacks

Our study uses data from 1995 to 2002. The good news is that there have been some relaxations in the rules since then, with greater use of recruitment bonuses and cost of living allowances. But it is still the case that nurses are taking a much bigger effective pay cut compared with their colleagues in lower cost areas.

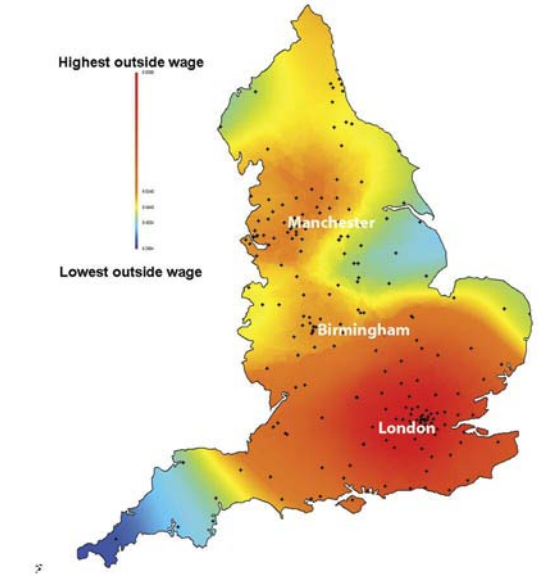
The lessons from this study are not just ones for the NHS. Teachers and other public sector workers are also in this situation: those in high cost areas take an effective pay cut relative to their colleagues in the rest of the country. The lessons are that instead of mandating across the board pay increases with small uplifts for the South East, the pay review bodies should look seriously at allowing wages in the high cost areas of the South to increase at a much faster rate than the low cost areas of the North. This should be done in schools and police departments as well as hospitals. Only then will the death premium of London be properly tackled.

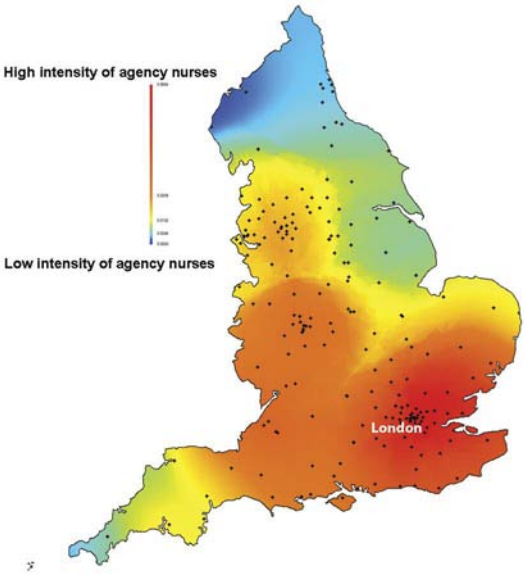
This article summarises 'Can Pay Regulation Kill? Panel Data Evidence on the Effect of Labour Markets on Hospital Performance' by Emma Hall, Carol Propper and John Van Reenen, CMPO Working Paper No. 08/184.

For the full paper, see: http://www.bris.ac.uk/Depts/CMPO/workingpapers/wp184.pdf

To listen to an audio interview with Carol Propper, visit: http://www.bris.ac.uk/Depts/CMPO/audio/main.htm

Outside wages and the use of agency nurses





Zonal pay for the public sector

Despite significant increases in public sector pay, deprived areas of the UK still struggle to recruit good staff and, as a result, have lower quality public services. *Natalie Tarry* proposes a zonal system for public sector pay, which would target extra pay where it is most needed to compensate workers for challenging living and working conditions.

Public sector pay is a crucial plank of the government's reform agenda. It has invested heavily in public sector pay over the last 10 years in a drive to expand and improve services. Higher pay was thought to be needed to attract new, well-qualified workers into the public services, especially education and health.

To some extent, the policy has worked. Public sector pay has grown at a much higher rate than private sector pay (which in part reflects a catching up from decades of low pay awards), and the overall public sector workforce has expanded significantly over the last decade. Yet there is little firm evidence that this has delivered the improvements in service quality that might be expected from investment on that scale.

At the same time, the public service workforce, the unions and professional bodies have not responded to these real wage increases with the appreciation that the government might have expected. Indeed, they continue to be very critical of their pay settlements – as indicated in the recent demonstrations by the police and the teachers.

It is not just the workforce expressing discontent. The large increases in public spending – from 39% to 43% of GDP – have not had a commensurate effect on user satisfaction. In the NHS, overall satisfaction dropped from 72% in 1998 to 62% in 2006, with similar falls across a range of services. Even satisfaction with GPs, although pretty stable over the last decade at 90%, has not budged despite record pay rises for GPs.

So, as far as the public is concerned, the government's huge investment has not translated into better services. Where are we going wrong?

In a recent report, the Social Market Foundation (SMF) argues that the government's approach to public sector pay is fundamentally flawed and will continue to fail to yield significant results unless it is reformed.

Our research shows that user satisfaction across the country has large variations, and dissatisfaction is greatest in deprived areas of the country. This is linked to the correspondingly lower levels of service quality consistently found in those areas.

In healthcare, this has been termed the inverse care law: 'the availability of good medical care tends to vary inversely with the need of the population served'. It clearly holds true outside medicine too: the poorest children are taught in the worst schools and social services struggle for capacity where they are needed most.

This is at least in part due to recruitment and retention difficulties in these areas. Regular turnover of personnel and overstretched staff are likely to have a significant effect on service quality. Teachers working in areas with high deprivation face different challenges to those in more affluent areas: lower aspirations; a tendency for parents to be less involved in their children's education; and pupils with behavioural difficulties.

For example, working in a housing department in an inner London borough with little housing capacity and endless waiting lists is fundamentally different to working in an equivalent department in a more prosperous part of the country. Often staff are unwilling to work in such challenging circumstances, especially if they are inadequately compensated.

Our research shows that local deprivation is a major factor in the variation of vacancy rates. For example, according to a 1998 *British Journal of General Practice* survey, GPs look for the following when choosing a practice (in order of preference): low or moderate deprivation in the patient population; opportunities to develop outside interests; freedom from financial management responsibilities; and extra pay.

So for GPs choosing a practice, the level of deprivation is the single most important factor. In fact, some surveys suggest that the average GP would be willing to give up more than £4,000 of income to avoid a practice with highly deprived patients. This has translated into fewer applicants for GP vacancies in poor areas and posts taking longer to fill.

Beyond London weighting, the current public sector pay structure does not take account of these different working and living conditions. It is negotiated in a statutory national settlement and makes little or no allowance for differences in costs of living, working environments, levels of retention and staff turnover.

Many alternative arrangements have been used in both the private and public sector: 'golden hellos' and other recruitment incentives, which do little for retention; relocation of staff to the North of England, which is not a wholesale solution for all public services; regional pay, which, like London weighting, does not address differing working conditions within regions; and deprived

Table 1: Sample zonal pay structure – teachers

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
M1	£19,641	£20,623	£21,605	£22,587	£23,569
M2	£21,195	£22,255	£23,315	£22,255	£25,434
M3	£22,899	£24,044	£25,189	£26,344	£27,479
M4	£24,660	£25,893	£27,126	£28,359	£29,592
M5	£26,604	£27,934	£29,264	£30,594	£31,925
M6	£28,707	£30,142	£31,578	£33,013	£34,448

area supplements, which are hard to define and do not recognise other causes of recruitment problems, such as high living costs. The government has tried a number of these approaches since 1997 with mixed results. There have been some general attempts to reform pay structures and levels with the aim of tying these to improved standards. The government has also stated its desire for more localised pay. But to date, localised pay has largely been confined to extended use of London weighting.

There have also been some efforts to introduce greater flexibility. For example, under Agenda for Change, hospitals are able to attach a long-term pay bonus to posts that would not otherwise be filled. In the police, special priority payments of £500 to £3,000 are payable to posts that 'present particular difficulties in recruitment and retention'.

Yet all of these attempts have been, to an extent, isolated and reactive. Most deprived areas continue to struggle to recruit good staff with a consequent impact on service quality. A reformed public sector pay system that compensated workers for more challenging working and living circumstances would be able to improve service quality and reduce inequalities. The inverse care law would be reversed.

As public sector pay becomes an even more contentious issue – with future spending rounds looking leaner and a recession looming – it will matter even more that public funds are spent efficiently. So what could be done?

The SMF's proposed solution is a zonal pay system, which is already operated successfully by a number of large private sector organisations, including Argos, WH Smith and Tesco. This system would respond to labour shortages (whatever the reason for them) and target extra pay where it is needed most.

Under such a system, a number of pay spines would be negotiated nationally with progressively increasing wages. If a particular public service provider, such as a school, faced recruitment problems and high staff turnover, it would move up to the next pay spine. Once the organisation's recruitment problems ceased, it would move down the pay spine again, with existing staff retaining their level of pay.

Table 1 shows a potential zonal system for teachers with the calculations based on the England and Wales lower pay spine as at 1 September 2006. The salaries for Zone 1 are the same as the 2006/07 salaries for England and Wales. As an example, bands of 5%, 10% 15% and 20% above this are included.

So far, our proposed system sounds quite similar to the existing system of London weighting. The difference is that the zones would not equate to a geographical area but would instead operate at the level of the individual school or hospital to respond to particular challenges that the institution was facing.

This would be a more efficient system, responding directly to recruitment problems as they arise. Extra funds could be targeted directly at the institutions that need them, pushing up pay in deprived areas until those institutions were able to recruit as easily as their more affluent counterparts, marking a major move towards equal delivery of services.

There are three potential problems that would need to be addressed when designing an effective zonal pay system. First, the definition of recruitment problems is critical and must be agreed by both unions and employers.

Second, the whole process could be inflationary and bureaucratic if the movement of each institution between zones were subject to negotiation. But it should be possible to negotiate rules that automate this process, as long as there was an appeal process. It has certainly proved possible in the private sector.

Third, and perhaps the biggest potential problem with such a system is movement between the zones. While it would be quite easy to gain agreement to move up a zone, moving down is likely to be far more difficult and might be resisted heavily. Rules for movement both up and down a zone would need to be agreed between employers and employees with an independent adjudicator. As always the devil is in the detail.

The current national pay system does not work: entrenched inequalities are exacerbated; and deprived areas continue to suffer from lower service quality. Zonal pay would be able to reverse this. It is not an easy solution, but the rewards could be great, with a better return on funding and improved quality of services in deprived areas.

Natalie Tarry is the director of research at the Social Market Foundation, a London-based independent think-tank.

This article draws on the arguments made in the Social Market Foundation's pamphlet *Poverty Pay: How public sector pay fails deprived areas* by Robin Harding. For the full report, see: http://www.smf.co.uk/assets/files/publications/Poverty%20Pay.pdf

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Third sector delivery of public services

The potential advantages and disadvantages of the third (charitable) sector in the delivery of public services are now part of a wide-ranging debate. In this issue of *Research in Public Policy*, authors including academics, policy-makers and service providers discuss the key issues surrounding the use of the third sector.

The first and crucial evidence, found by Sarah Smith and colleagues, suggests that not-for-profits, including the public sector, have a clear advantage over the private sector in the delivery of caring services. The advantage is that workers who care for the service they deliver in health, education and caring services donate a large amount of unpaid labour that is absent in private sector delivery of the same services. This amounts to 120 million extra hours worked per year.

In addition, private firms seeking profit may well reduce the quality of service provided if contracted by the state to deliver services. Hence, the private sector may be most useful where there is limited pro-social behaviour by workers and easily defined outcomes. But there is a strong argument that the public sector may be less efficient.

Ann Blackmore and Stuart Etherington from the National Council for Voluntary Organisations argue that the third sector offers clear advantages. First, the sector can maintain the 'pro-social' attitudes of workers and be trusted to keep the focus on service outcomes.

They also argue that charitable organisations can engender greater trust with clients and hence be better at delivering personalised services to groups distrustful of the state. At the same time, they note, there is a danger that this trust will be threatened if the organisations take on other state functions such as rationing access to services. Furthermore, they suggest that good contracting and cost pressures, as well as the focus on outputs, can lead to efficiency.

Many of these issues are highlighted in specific examples in the other articles. Joëlle Noailly and colleagues highlight how greater marketisation of childcare services in the Netherlands led the private sector to focus on more affluent urban markets to the detriment of poorer and rural areas, which had had services delivered by charitable bodies.

This seems to be clear evidence of how not-for-profits will focus on equity of access rather than following profit-type motives. Since contracting with the private sector over price, equity and quality is often impossible, the third sector offers a partner that can perhaps be trusted to have objectives more in line with the state. But that does not mean perfect alignment, still leaving difficult contracting issues.

Peter Kinderman, a professor of clinical psychology and provider of mental health services in Liverpool, argues that the third sector may be best placed to offer novel mechanisms of service delivery of more individualised or personalised services.

Chris Manthorp describes how the London council for which he works is engaging with the third sector in delivery of care to the elderly. He emphasises the passing of risk to the sector while maintaining quality of care, although again he stresses the potential pitfalls of contracting difficulties.

In search of the public service ethos

Is there such a thing as a public service ethos – and if so, does it matter? Research by *Sarah Smith* and colleagues finds evidence that public service ethos makes a real difference in the delivery of public services.

The term 'public service ethos' captures the idea that people working in the public sector are driven not just by the direct financial reward they get from working, but also by a desire to serve the greater public good. The point of contrast is with the private sector, where profit is assumed to be the main driver of behaviour. Put crudely, people in the public sector will work hard because they care; people in the private sector will only work hard because they are paid to.

For debates about the future provision of key welfare services such as education, health and social care, it matters hugely whether there really is a public service ethos. Privatisation of some of these services and the introduction of hard financial incentives into public sector provision potentially threaten to undermine the ethos.

This makes it important to understand whether a public service ethos exists – not just in what workers say, but also in what they actually do – and what underlies any difference in behaviour in employees across the two sectors.

People working in non-profit public services are more likely to do unpaid overtime than those in the private sector

One explanation is that people simply differ in their 'pro-social motivation' – the extent to which they are motivated by the desire to help others. 'Caring' people choose to work in the public sector, which is perceived to be less profit-oriented, while 'uncaring' people are attracted to work in the private sector. This idea is more formally expressed in a theory of 'mission-matching' (Besley and Ghatak, 2003, 2005).

CMPO associate Patrick Francois (2003) proposes an alternative explanation. He argues that workers in the for-profit and non-profit sectors may both have pro-social motivation, but there are good reasons why they may differ in their pro-social *behaviour*.

Consider a small hospital where employees care about their current and future remuneration and about their patients. As a result, they are reluctant to leave at the end of their shift if there is no one to take over because this may threaten patient care and they are willing to stay on even if they are not directly paid for doing so.

In a private sector organisation, there is a risk that all or some of this unpaid or 'donated' labour is expropriated as profit. If employers know that their workers will not leave their shifts until the next person arrives, they can start cutting back on the number of staff required. Knowing this, the workers have no incentive to put in the extra effort in the first place.

In a non-profit organisation by contrast, the absence of a profit motive prevents this expropriation and so any extra effort translates directly into improved patient care.

These two explanations are not mutually exclusive. The fact that any extra effort in the public sector will directly improve output quality, rather than lining the profits of shareholders, may create the caring mission that attracts similarly motivated individuals. The one thing that the explanations have in common is that they predict a clear relationship between sector of employment and workers' behaviour – and more pro-social behaviour in the public sector.

To date, there has been very little research addressing the practical importance of the public service ethos. Most studies have involved questioning workers in the two sectors on their motivations (see Le Grand, 2003, for an overview). These studies typically find that people in the public sector attach a greater importance to pro-social concerns than those in the private sector although this may be a 'halo effect' (people responding in a way they think they ought to) rather than a genuine difference.

The public service ethos is evident in real differences in the behaviour of people working in the non-profit and for-profit sectors

Our research provides the first hard evidence that there is a link between sector of employment and pro-social behaviour. We use unpaid overtime as our measure of pro-social behaviour. In the absence of information on work intensity, this captures hours

worked for which the individual does not receive any direct financial compensation. Individuals may do unpaid overtime to get promoted and we allow for this possibility.

The raw data show that 46% of employees in education, health and social care in the non-profit sector do some unpaid overtime compared with 29% of their counterparts in the private sector. They also typically do more hours of unpaid overtime: more than one hour extra a week (9 hours 35 minutes in non-profits and 8 hours 20 minutes in for-profits). This does not seem to be a general 'non-profit effect': there is little difference between people in the for-profit and non-profit sectors working in other industries.

Donated hours in the public sector are the equivalent of employing an extra 60,000 people

There are other differences between workers in the two sectors that may account for this observed non-profit premium. For example, public sector employees are older and more likely to be female. We control for a wide range of individual and job characteristics, including age, gender, ethnicity, marital status, number and ages of children, contracted hours of work, job tenure, employer size and unionisation.

Another potential concern is that unpaid overtime may be motivated by career, rather than caring, concerns. We control for this in a number of ways: we include a measure of the variance of wages across occupations to capture the potential financial rewards associated with future promotions; and indicator variables if individuals report that their current job has promotion prospects or potential bonuses, as well as self-reported measures of job security.

All of these variables affect whether or not people do unpaid overtime, but their inclusion in the analysis does not change the main conclusion. After including a robust set of controls, we find that people working in welfare services in the non-profit sector are 12 percentage points more likely to do unpaid overtime than those in the private sector.

In other words, some of the differences in behaviour between people working in the two sectors in the raw data can be explained away by individual and job characteristics, but there is still a sizeable and statistically significant non-profit premium.

To get some idea of the size of this effect, consider that there are approximately 2.5 million full-time equivalent public sector workers in education, health and social care (Hicks et al, 2005). Our estimate of the premium suggests that an additional 120 million hours are donated in the public sector compared with similar people working in similar jobs in the private sector. This is equivalent to an extra 60,000 people.

This tells us that the public service ethos is more than just a notional idea – it shows up in real differences in behaviour between people working in the non-profit and for-profit sectors. For the debate about public services reform, what we would really like to know is whether these are 'caring' people who would do unpaid overtime whatever sector they worked in, or whether they only exhibit pro-social behaviour if they are working for a non-profit organisation with the right incentives and a common mission.

We think that we can learn something by looking at what happens when people change sectors. We find that there is no change in unpaid overtime behaviour: people do not start doing unpaid overtime when they move from the for-profit to the non-profit sector. Instead, there is evidence that people who were doing unpaid overtime in the for-profit sector are more likely to move into the non-profit sector (and *vice versa*).

On one hand, this finding is reassuring. It means, for example, that the difference in unpaid overtime between the two sectors is not just a reflection of social norms in the two sectors. If it did, we would expect to see movers conforming to the norms in their new sector.

On the other hand, it suggests that sector *per se* does not change behaviour. Instead, what we need is a greater understanding of the role of missions in individuals' choices about where to work – and of how those missions are created and may be threatened.

This article summarises 'How Important is Pro-social Behaviour in the Delivery of Public Services?' by Paul Gregg, Paul Grout, Anita Ratcliffe, Sarah Smith and Frank Windmeijer, CMPO Working Paper 08/197.

For the full paper, see: http://www.bris.ac.uk/Depts/CMPO/workingpapers/wp197.pdf

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The role of the third sector in delivering public policies

Voluntary and community organisations are set to play an increasingly important part in the delivery of public services. *Ann Blackmore* and *Stuart Etherington* explore the challenges and the risks – for service users, the government and the third sector itself.

Voluntary and community organisations (VCOs) have been identified as key players in achieving reform of public services. The government's review of the third sector recognised the multiple roles that VCOs can play: in service delivery; as a partner in innovation and the design of services; and as a campaigner for change in the way services are delivered (HM Treasury and Cabinet Office, 2007). Enabling our sector to contribute in each of these ways will be crucial if the government really is to achieve a transformation in public services.

The National Council for Voluntary Organisations (NCVO) has long argued that simply transferring public services from one sector to another will not transform them: transformation requires us to look at public services in a different way, one that puts citizens at the heart of the process. And VCOs can then contribute at each stage in the process, helping to identify need and design solutions, not just deliver services.

The involvement of VCOs in public services is not new. Many public services have always been run by VCOs, notably the hospice movement. Other services began in the third sector, moved across to the public sector and are now moving back.

But starting at the end of the 1980s, when compulsory competitive tendering meant that many VCOs entered into public service delivery contracts, there has been a change. And there has been an even greater growth over the last 10 years. Income from contracts is now worth £5.3 billion, accounting for 20% of the sector's income, and all the main political parties talk of the importance of the sector in public service delivery.

This change in the sector's role – and in the relationship between civil society and the state – has many advantages in terms of improving the quality of public services. But it also poses challenges and risks.

The role of voluntary and community organisations

If VCOs are to contribute to the transformation of public services, then all sides need to understand both their potential contribution and how they differ from the public sector.

VCOs are distinctive in being value-based. We are driven to make a positive improvement to the lives of individuals and communities. At our best, we do this by putting users, citizens or communities at the heart of what we do. Many of our organisations are not simply run for a particular group, but by the people they benefit.

This does not automatically mean that we provide better or more efficient services than organisations in the private or public sector: a VCO bidding to deliver a service still needs to show the value of its service. But we should not have to make a case for the value of the sector as a whole. Public sector commissioners need to ensure that if they value our contributions, then they procure services in a way that takes account of them.

At the same time, there are things the public sector can do that VCOs cannot. For example, even the largest VCOs do not have the capacity to provide universal public services. And the responsibility for ensuring equity of provision must remain with the public sector funder. That is why VCOs cannot meet the challenge of public service reform alone. A mixed economy of providers is essential.

One argument often used against the involvement of VCOs in public service delivery is that they are not democratically accountable. Such arguments are fundamentally flawed. When a VCO takes on a contract to deliver a public service, it is accountable through the contract to the funder. But it would be very wrong for statutory agencies either to try to transfer their democratic accountability to an organisation delivering on a contract or to seek to control the organisation delivering a contract.

VCOs are independent organisations with a range of appropriate accountability mechanisms. They are not part of the public sector and should not be treated as such. Their contribution goes far beyond public services, and they need to retain the room, freedom and flexibility for civil society to thrive.

Independence

While it is true that the independence of VCOs may be compromised if they take on public service contracts and develop closer relationships with government, this is not a reason, as some have argued, for VCOs to avoid such contracts. As with any risk, the question should be how to manage it, not necessarily how to avoid it altogether.

As an NCVO report argues, entering into a contract or partnership with a statutory body does not automatically

undermine the independence of an organisation (Blackmore, 2004). What matters is that the relationship is entered into after careful thought, and that it is properly managed.

Crucially, this is a matter of good governance: the trustees of an organisation must satisfy themselves that the relationship contributes to the delivery of their organisation's mission, not diverting the organisation from it or skewing its focus; and that the terms are acceptable and sustainable.

Coercion: the impact on trust and confidence

Taking on a greater role in delivering public services might affect the relationship between a VCO and the public and, more importantly, with the users and supporters of a VCO. At present, there is very little public awareness of the role VCOs play or of the extent to which some VCOs take on public sector contracts. But we need to be prepared for this to change.

We need to think more carefully about how to explain these relationships, and demonstrate that we remain independent advocacy organisations. Otherwise, there is a real risk of creating confusion about the nature and role of the third sector. Some VCOs may begin to be perceived as agents of the state. And if that is the case, why would people donate their time or money?

But there is also a second issue that will affect public trust and confidence, which has received far less attention. What will happen if some VCOs really do take on roles where they act as agents of the state, for example, by making decisions about who can access services?

This will be especially difficult if they have to impose sanctions on those who do not meet the government's requirements. The role of VCOs has always been to empower people, not to have power over individuals and communities. Any shift in this relationship is potentially very dangerous.

A voice for civil society

The role of VCOs in designing and delivering public services is only one aspect of their role within civil society. At least as important is the role VCOs play in providing a voice for, or supporting the voice of, citizens and communities. The sector's role in campaigning and advocacy is critical.

The government recognised this in the compact – the document setting out the relationship between the public and voluntary sectors – when it guaranteed the right of VCOs to campaign and speak out against government policy, regardless of any funding relationship they might have. But a decade on, VCOs continue to express their concerns about being critical of government.

There seem to be several factors at play. There is growing anecdotal evidence that some government funders use their powers inappropriately to constrain the actions of VCOs. But it is also true that some VCOs self-censor because they fear speaking out against a body that funds them.

Another possible reason is that some VCOs and some parts of government are simply finding it hard to adapt to the new relationship. Government is used to being in control, and finds working in partnership difficult. Equally, some VCOs with a history as vocal campaigners, employing outsider tactics, need to make more of the current climate and get better at using insider tactics and, where appropriate, learn to work with statutory partners to achieve their goals.

Conclusion

Civil society organisations have an important contribution to make to delivering public services. At its best, this new relationship will have positive outcomes that put citizens and communities at the heart of public policy and enable them to inform and influence the development and delivery of public services.

In a country that is increasingly diverse and faced with competing demands, the need for a mixed economy of providers is stronger than ever. But this does not mean that the state escapes its responsibility to ensure equity and accountability.

Taking on a role in delivering policies does not necessarily equate to a loss of independence for VCOs, either individually or as a sector. But it is important to be aware of the risks. The blurring of boundaries between the state and VCOs could create problems if new and evolving relationships are not properly understood and managed.

This is why VCOs and government need to develop a better understanding of the environment in which they operate and the circumstances that enable civil society – and within that the voluntary and community sector – to thrive.

Ann Blackmore is head of policy at the NCVO. Stuart Etherington is chief executive of the NCVO.

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When market forces govern childcare provision

There is no public provision of childcare in the Netherlands – and recent reforms have made the market for childcare wholly demand-driven. *Joëlle Noailly, Sabine Visser* and *Paul Grout* investigate who wins and who loses.

Childcare services are provided by the public sector in many countries. In Denmark, France and Sweden, for example, childcare provision is the exclusive domain of public organisations, which gives the government the tightest possible control of quality, affordability and accessibility. But public organisations may be inefficient, and so other countries allow private for-profit childcare centres to operate alongside public and not-for-profit centres.

The Netherlands is one of the few countries without any public provision of childcare. In 2004, about 60% of the 1,300 Dutch childcare organisations were private for-profit organisations while the remainder had not-for-profit status. The government guarantees quality and accessibility through regulations on minimum quality standards and subsidies targeted at specific groups.

Yet until recently, local government still played an important role in shaping the supply of childcare. Municipalities purchased a portion of places from childcare providers and allocated them to parents based on social considerations. In 2004, roughly seven in 10 of all childcare organisations sold up to 30% of their available places in this way.

The 2005 Childcare Act led to a rise in the number of providers and a big fall in the proportion of not-for-profit providers

So political factors partly determined the local provision of childcare. There is evidence from other studies that the decision to invest in childcare is likely to be positively affected by the percentages of left-wing members and women on the council. Such results have been found in Sweden, for example, where provision was entirely determined by public officials.

The 2005 Childcare Act in the Netherlands marked an end to the purchase of subsidised places by local municipalities. The Act introduced a new financing structure that is wholly demand-driven. All subsidies now flow directly to parents rather than the childcare supplier. Parents are free to choose their provider and sign a contract directly with the childcare centre. Depending on their income, parents can qualify for a government reimbursement of part of their costs.

With the supply of childcare now fully dependent on demand from parents, market forces govern local provision. As a consequence, public officials at the local level have lost some control. This sparked concerns in the run-up to the introduction of the Act about the effect that the new financing system would have on the accessibility of childcare. For example, one commentator noted:

'It would appear less than probable that entrepreneurs in day-care for children will feel inspired to set up business in the poorer neighbourhoods or in country areas, where they will be less assured of a flow of customers (idealists excepted). Offering services in a wealthy neighbourhood with two-income households is safer for an entrepreneur, and the market there is far from saturated.'

The main concern was that the provision of childcare would move away from poor rural neighbourhoods towards wealthy urban areas where the demand for childcare is high and the market is profitable.

The Act also altered the playing field between for-profit and not-for-profit providers. There is evidence that not-for-profit organisations were favoured in the contracting process with local municipalities. This was motivated by the belief that not-for-profit organisations offered more guarantees and that the subsidy would be spent on welfare-related issues. As such, the Act is likely to have significantly modified the provision of childcare by for-profit and not-for-profit providers.

Our research compares the factors driving the provision of childcare centres in the Netherlands before and after the introduction of the Act. We examine the implications of the new financing structure for total childcare provision as well as the balance between for-profit and not-for-profit providers.

The empirical analysis uses data from the General Firm Registry on the location and legal status of childcare facilities for the years 1999-2001 and 2006. We analyse how different factors influence the supply of childcare across different postcodes.

We analyse the effect of the Act by contrasting the childcare

Table 1: Markets for childcare in the Netherlands

Market characteristics	All markets	Increase in total number of locations	Decrease in total number of locations	Decrease in not-for-profit locations
Population (in 10,000)	0.55	0.66	0.47	0.51
Income per capita (€10,000)	2.19	2.23	2.15	2.16
Urbanisation (1=highly urbanised)	0.27	0.41	0.14	0.17
Number of childcare facilities in 1999-2001	1.43	0.86	2.04	1.98
Share of not-for-profits in total provision in 1999-2001	76.6%	58.5%	87.7%	92.4%
Number of markets	2,440	891	933	1,151

market before and after the reform. But other unobserved factors – a change in technology, for example – may also have affected the market over the same time period. And since the reform is relatively recent, it is possible that supply and demand have not yet fully adjusted to the new regulatory framework.

Childcare provision has grown in affluent and urbanised areas but fallen in less affluent and rural areas

The data show two clear trends. First, the number of childcare facilities increased by about 10% in 2006 compared with 1999-2001. Second, the percentage of childcare locations run on a not-for-profit basis dropped considerably. Between 1999 and 2001, approximately 80% of all locations were run on a not-for-profit basis, but this number dropped to just short of 50% in 2006. Our results show that neither of these developments occurred evenly in all local markets for childcare.

Table 1 shows that most of the markets that experienced an increase in childcare provision were located in relatively wealthy urban areas. In contrast, most of the markets that experienced a drop in childcare provision were located in disproportionately poor and rural areas.

This picture is confirmed by our statistical analysis. We find that in 2006 the provision of childcare is more responsive to income and urbanisation than in 1999-2001. A market's purchasing power has become more important in determining in what type of market childcare providers locate. In addition, a market in a city has a 25% greater chance of experiencing growth in the number of childcare facilities than a market outside a city.

This finding suggests that there is a more efficient interplay between supply and demand in the Dutch market for childcare. But it also seems to indicate that the new financing system might cause childcare providers to focus on high-income, urban markets, endangering the accessibility of childcare in poor rural areas.

This turns out to be the case: the growth in childcare provision in affluent and urbanised areas has been accompanied by a fall in childcare provision in less affluent and rural areas. Although financial access is still guaranteed in these markets in the form of targeted subsidies, parents may have to travel further to find a childcare provider.

Similarly, the fall in the number of not-for-profit childcare facilities has not been spread evenly over the different markets. Demand factors – in particular income and urbanisation – seem to have grown more important for not-for-profit providers. These providers have mostly exited markets where demand factors are less favourable, in particular those markets with lower average income and which are less urbanised.

The exit of not-for-profit childcare providers from rural neighbourhoods is particularly striking

Not-for-profit childcare providers have also exited markets in which no for-profit providers were active in the period 1999-2001. The exit of not-for-profit organisations from rural neighbourhoods is striking. In the period 1999-2001, rural areas had around three and a half times as many not-for-profit childcare locations per 10,000 inhabitants than urban areas. By 2006, this multiple had been reduced to one and a half times.

A possible explanation for these results is that prior to the introduction of the Act, not-for-profit providers were more frequently granted municipal subsidies and so were able to maintain their activities in non-profitable markets. The removal of these subsidies levelled the playing field between for-profit and not-for-profit providers. In the absence of subsidies, the two kinds of providers exhibit the same market behaviour and focus on the same market segments.

If the Dutch government considers that provision and accessibility of childcare should be guaranteed in the less affluent rural areas from which not-for-profit providers appear to have retreated, one option would be to offer subsidies to entice providers to enter these markets. But our results indicate that no distinction on the basis of the profit status of the provider seems warranted.

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Third sector providers in the delivery of mental health services

Mental health care demands expertise from a range of disciplines – but too often professionals from different agencies work from vastly different perspectives. *Peter Kinderman* argues for a radical rethink of the way mental health services are understood and delivered, drawing on ideas from the third sector.

People are wonderful, fantastic, complex creatures – but difficult to understand and explain. For a variety of complicated political reasons, a range of social and mental health problems tend to be assessed from a diagnostic, medical perspective. This creates difficulties.

Plato said that natural scientists should 'carve nature at the joints' and identify the distinctions between entities. This approach was hugely successful in the eighteenth-century Linnaean classification of plant and animal species, and has been extremely beneficial in physical medicine. And in psychiatry too, we have diagnosis: the identification of the natural forms of distress – the different 'illnesses' patients are believed to be suffering from.

But carving nature at the joints is appropriate only if you're dealing with a beast that has joints. Diagnosis is an unwieldy tool for human distress. Decisions about the provision of mental healthcare should instead be based on individuals' distress and their personal and social functioning (Kinderman and Tai, 2006). Extending diagnosis from the confines of the clinic to more wide-ranging social issues such as 'diagnosing' child abuse seems even more unwise.

Clinical psychologists, in contrast, use 'psychological formulations', which incorporate the events of people's lives, and how they have interpreted and reacted to them. These evolve over the course of assessment and therapy. They are complex and often based on several psychological theories, each drawing on scientific research.

The complexity of mental health

Mental health and social problems are linked; social, familial, circumstantial and economic factors are all crucial elements of any framework of understanding. The World Health Organization (WHO) defines health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' and mental health as 'a state of well-being in which the individual… can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community' (WHO, 2003).

The European Commission goes further, suggesting that 'there is no health without mental health. For citizens, mental health is a resource which enables them to realise their intellectual and emotional potential and to find and fulfil their roles in social, school and working life', and recognises that mental health 'is determined by a *multiplicity of factors* including biological (e.g., genetics, gender), individual (e.g., personal experiences), family and social (e.g., social support) and economic and environmental (e.g., social status and living conditions)' (European Commission, 2005).

Psychologists suggest that disruption of psychological processes is a final common pathway in the development of mental disorder (see, for example, Kinderman, 2005). A range of biological, social and circumstantial factors can lead to such disruption and in turn lead to mental health problems.

An example of a biological factor would be certain neurotransmitters (and the associated genes) believed to be significant in schizophrenia or depression. These affect people through their impact on perceptual and cognitive systems and on psychological processes associated with self-esteem, beliefs in self-efficacy, motivation and expectations of reward.

The same principles apply to social and circumstantial factors. Social deprivation and poverty can lead to problems such as depression – but they operate through the disillusionment, hopelessness and learned helplessness that constitute a realisation that one's actions have no effect or purpose.

Being abused or traumatised obviously leads to problems, but this association is, again, mediated by the disruption of psychological processes – the ways in which children (and later adults) appraise themselves, the people in their lives and the ways in which relationships and social intercourse should be governed.

Interventions and services

Multidisciplinary, multi-agency approaches are needed to deliver appropriate intervention for such psychological and social problems. Consider the following example:

Jane Doe was referred by her GP to the local NHS Clinical Psychology service for assessment of her apparent mental health difficulties. Ms Doe was continuously anxious, depressed and apparently experienced occasional hallucinations. She occasionally harmed herself through cutting. When interviewed, she was wearing sun-glasses in her 9th-floor flat with newspapers at the windows, continually smoking cannabis. She was morbidly obese with ulcerated legs. None of her three working-age sons were in employment, one was on probation and one had an ASBO. All were heavy cannabis users. Their flat was barely habitable.

Clearly a simple diagnosis of anxiety disorder fails to describe the situation adequately. This woman and her family need multiple health agencies and various social services, together with public institutions such as the police or the courts.

Multi-agency working is supported by the government's Social Exclusion Task Force, and similar approaches exist in most Western countries. But too often professionals from different agencies work from particular and individual perspectives. There are different rules, different funding arrangements, different staffing systems and different policies. There may even be different aims – consider the difference in perspective of psychotherapists and the police. And while there are regular multidisciplinary meetings, they seem often to result in people returning to their camps afterwards.

The role of the third sector

A genuinely integrated approach could include a radical rethink in the basic assumptions lying behind the delivery model. Psychologists have already advocated novel approaches to such matters, placing psychosocial aspects centrally and incorporating medical and social factors as well as circumstantial factors (Kinderman, 2005; Kinderman and Tai, 2006; Kinderman et al, 2007).

In this analysis, social problems and mental disorders are part of the human condition rather than pathologies. Such a perspective is likely to enhance social inclusion and lead to an increased focus on primary prevention. Rather than waiting for a disorder to be 'diagnosed', it makes sense to identify those aspects of the world that may lead to problems in the future.

Such an approach may also lead to a more genuine adoption of both a service-user led service and a service based on the 'recovery model'. People are not abnormal, or even suffering from abnormal psychological processes. Instead, they are experiencing an unfortunate part of the set of normal human experiences. This should make 'them' more seen as part of 'us'. And this in turn may help us reach out to frequently excluded groups.

The third sector may be able to provide novel mechanisms for service delivery. These may include a single point of access with comprehensive services from a single agency operating specialist multidisciplinary teams.

More radically, we may see professionals or the service users themselves having an element of control over the budget. Such budget-holding could radically expand the choice available to service users. Third sector organisations may make 'service-level agreements' to supply expertise. This could lead to improved coordination between health and non-health services.

Measurement, psychology and econometrics

Finally, such ideas would lead to quite different econometrics. The costing and funding of mental health services are based too much on diagnosing mental disease, identifying episodes of illness and consequent treatment. This returns to concepts of 'caseness' (the identification of incidences of illness) and packages of care applicable to each putative illness.

The dominant model of economic costing is closer to Lord Layard's idea of applying a successful treatment (cognitive behavioural therapy) to identifiable episodes of illness (in that example, mild-to-moderate depression and anxiety) and monitoring the outcome in terms of both 'symptom reduction' and occupational statistics.

A psychosocial approach would place less emphasis on 'episodes of illness' and 'caseness'. Similarly, 'treatment' of 'illness' would not be the primary measured outcome. Multi-dimensional measures of psychological well-being are well developed and have good psychometric properties. They relate well to meaningful markers of health and productivity. But they are less frequently used.

Simple lists of people's problems are more inclusive than diagnoses and have ultimate face validity. Psychological measures of such specific problems also have excellent psychometric properties. And finally, tools such as 'goal attainment scaling' offer the possibility of individualised, idiographic measurement of the degree to which a person has moved towards their personal goals. Economic arguments could be based on such systematic assessments of increases in well-being.

High-quality mental health care involves multi-agency, multidisciplinary approaches. Services should facilitate – not frustrate – these. Of course, such changes may be possible within existing statutory services. It may not be necessary to use third sector organisations. But it might require third sector ideas.

Peter Kinderman is professor of clinical psychology at the University of Liverpool.

Further reading

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Delivering residential care through the third sector

The London borough for which I work faces a problem familiar to most local authorities. There are seven residential homes for older people, providing for up to 256 residents. These homes were built between the 1950s and the 1970s. They were not especially well built and little was spent on maintenance over the years, so their physical repair leaves much to be desired.

Rising numbers of older people together with pressures on public sector budgets have led to the raising of eligibility criteria for admission to such homes. This means that they are home to people with much more challenging demands than those for whom they were originally designed.

When these homes opened, they catered for largely able-bodied, often recently retired people, who came into residential care because they wanted security and company. These days, the average age of admission is over 85 years old and more than 70% of people admitted suffer from dementia. Problems with health and mobility are commonplace. In short, the homes are no longer fit for purpose.

Although all have undergone periodic upgrades, none meet the standards that the Commission for Social Care Inspection rightly imposes on new build residential accommodation. Bedrooms are too small and lack *en suite* bathrooms, so residents live in cramped and undignified conditions.

Our programme is committed to demolishing these homes and replacing them with two 90-bed establishments, split into small group living units for groups of about 10 residents. This is inspired by European accommodation, and in particular Daelhoven in the Netherlands.

After consultation with older people in the community and in current homes, the new establishments will function as resource centres for the local community, providing advice, a café and centre in which to meet and an outreach service. To maximise peer contact and use of the facilities, the homes will be surrounded by sheltered housing schemes. Consisting of around 35 units each, these will effectively form small retirement villages, in which the options to buy or rent will be available.

The borough has committed itself to ring-fencing the funds from sale of the existing seven residential sites and allocating the majority of current revenues to providing care. It would be possible to borrow money and to build and staff the new establishments within the public sector. So what are the advantages that have driven the decision to look for a partnership with the third sector instead?

A principal benefit is the transfer of risk away from the public purse. For example, if a roof collapses in 15 years time, the council will not have to worry about the bill. A contractual agreement with the third sector will also ensure that the home is properly maintained, something that budget pressures often force councils to forgo.

Partnership allows for the transfer of staff to an external organisation with their pay and conditions protected. In the long term, this reduces costs, transferring management costs to organisations perceived as being more efficient than those in the public sector.

Partnerships between the public sector and third sector organisations can manage risk and plan for the long term more effectively

Crucially, it allows the council to commission services that can provide nursing care (for which there is ever-increasing demand), which we cannot do ourselves under existing legislation. Equally crucially, it will mean that care can be provided in modern, purpose-built environments at the cutting edge of design for older people.

The new buildings will incorporate anticipated changes in legislation, as they must have a shelf life of 25 to 30 years. New designs will specifically help the management of people with dementia and behavioural problems or nursing care issues. These problems are expensive to find placements for in the marketplace and are best managed under close commissioning supervision.

As leading edge designs, the new homes will also demonstrate the borough's commitment to its residents and contribute to

The re-provision of residential care homes for older people is an urgent public priority. *Chris Manthorp* explores the potential of partnerships between local authorities and the third sector, drawing on his personal experience working for a London borough.

perceptions of it as a forward-thinking council, no small consideration given the importance of performance indicators and star ratings in the current political climate.

Is there a 'win-win' situation here, in which the third sector can derive similar advantages from partnership arrangements? There are some clear positives. Principal among these is the fact that a long-term arrangement with a council guarantees an income stream and allows business development. While it would be foolish to tie the borough into a 25-year contract (tying up money in stock and with one organisation in an environment where flexibility is at a premium), a five-year period before re-tender is practical – and attractive to both sides.

Partnership enables residential care to be provided in purpose-built environments at the cutting edge of design for older people

Moving into the care market as a provider on a large scale also increases the business awareness, planning and personnel management strategies of smaller third sector organisations. It allows organisations to assume the status of major players in local markets and demonstrate their commitment to high standards of care for older people. It also increases their political profile, both as influences on local government policy in the area and more generally.

There are, of course, risks for both parties in such partnerships. Local government has to get the contracts right. Recent history is littered with the wrecks of partnership projects where third sector providers have exploited poorly designed contracts without effective penalty clauses or local government has demanded the impossible.

For example, I visited a new scheme last year that had no fewer than 17 protection of vulnerable adults orders outstanding against it. There are many less dramatic examples of everyday difficulties generated by complex contractual arrangements particularly between third sector care providers linked into partner organisations that are responsible for building and maintenance. This is becoming increasingly common – and such tripartite partnerships allow for endless blameshifting.

Equally, there are clear risks for the third sector. Organisations are accepting transferred risk and they are effectively corralled into promising cost reductions. Not all third sector organisations are ready for this degree of discipline. There is a danger that they will lose touch with their original ethos and that a swathe of increasingly ruthless businesses will replace the organisations that have done so much to transform attitudes to the old and vulnerable over the last three decades.

Do the advantages outweigh the risks? I am convinced that they do. My perspective is simple. It is my primary responsibility to ensure that service users get the best available to them, at a price acceptable to the council, delivered through partnerships sufficiently genuine to ensure continuity of care and supply.

Risks of partnerships include poorly designed contracts and insufficient third sector expertise

For residents and visitors to the new resource centres, success will ensure much increased privacy and dignity in a comfortable environment. The chance to reconfigure care in a purpose-built environment allows the development of better care patterns (for example, involving residents in helping with the preparation of their own meals).

The development of community links through a resource centre will also end the depressing isolation that characterises much current residential care. Perhaps most importantly, rebuild, redesign and a new commissioning relationship allow service users and older people in the community the lead voice in the process and the chance to shape services to reflect their needs.

Everyone concerned understands the parameters – all we need to do is get the details right!

Chris Manthorp is a project director for a programme of re-provision of residential care homes in London. He is writing in a personal capacity.

Fatal fluctuations?

Irreversible health consequences of recessions in India

Can recessions have permanent effects on health outcomes in developing countries? *Sonia Bhalotra* addresses this question by looking at infant mortality in India.

In poor countries, about 30% of all deaths occur in childhood compared with just 1% in richer countries. The proximate cause of these excess deaths is infectious disease combined with inadequate nutrition. Diseases like diarrhoea, malaria and respiratory infection are more prevalent in poor countries because of unclean water, indoor air pollution and poor sanitation and housing. Children are especially vulnerable to infections, and more so if they are undernourished, both *in utero* and in early childhood.

A question of longstanding policy interest concerns the extent to which income (or poverty) is an ultimate cause of childhood death in poor countries. The answer is indicative of the welfare effects of economic growth and the effectiveness of cash transfers made to poor households.

Since longer-range growth is entangled with many other changes – in technology, education, infrastructure, and political and social institutions – the effects of income growth are best isolated by studying the effects of short-range changes. I studied the effects on infant mortality of booms and busts in the state-level economy in India, a country that accounts for a quarter of child deaths worldwide. Between 1970 and 1997, the risk of infant death was 1 in 20 in urban areas and 1 in 10 in rural areas.

Recessions increase infant mortality in rural areas of India

Why might growth in aggregate income (GDP) lower mortality? First, by raising the incomes of the poor, so that they can acquire more nutrition and other health inputs; and second, by raising state social expenditure.

But the evidence on the effectiveness of income in improving survival is not overwhelming. Studies of developed countries show that mortality risks for adults and children are *lower* in recessions (Ruhm, 2000). And historical evidence suggests that secular improvements in medical technology, public services and education are more important than income growth in bringing about sustained mortality decline.

I revisit this question using new data and new methods. The essence of my research strategy is to compare the risk of dying before the age of 1 of siblings, one born in a recession and one not. Comparing children born at different times to the same mother takes care of the problem that during a recession, women who are more at risk of facing infant death may be more likely to defer birth or to suffer foetal loss.

By analysing cohorts of children (and their siblings) born across 27 years and 15 states, I control for the effects of unmeasured trends that are correlated with both mortality and income, such as technology and public services. I also control for the effects of regional characteristics that evolve sluggishly over time, for example, culture and climate. And I control for rainfall 'shocks' as these may directly affect incomes (through agricultural production) and mortality (by changing the disease environment).

Girls are more likely to die in downturns than their brothers

The data on linked siblings come from retrospective fertility histories collected in a household survey: more than 152,000 children born to around 50,000 mothers in 15 Indian states during the period 1970-97. I merge these data by state and year of birth with time-series data on state income, social expenditure, rainfall, etc.

The results show that recessions increase rural infant mortality. A recession involving a one standard deviation change in income raises mortality risk by 1.6%, implying an additional 0.42 million infant deaths. Another way of representing the size of this effect is to note that a negative income shock of median size undoes two-thirds of the annual linear rate of decline in rural mortality in India over the period.

The effects of income shocks on lifetime health are likely to be even greater since, where children survive income shocks in childhood, early exposure to poor living conditions has lasting adverse effects on their health (van der Berg et al, 2006; Bhalotra, 2007a).

The effects of recessions are not evenly distributed. The most vulnerable households are those in which the mother is uneducated or had her first birth when she was a teenager. Within

households, girls are much more likely to die in a downturn than their brothers (Bhalotra, 2007b), reinforcing previous findings that girls' welfare is put second to that of boys in lean times.

Recessions are frequent and severe in India. The average change in per capita income in downturns in the period 1970-97 was minus 4.4%; in upturns, it was 6.2%. And India has a relatively stable economy. Developing countries tend to exhibit high-income volatility, occasioned by frequent crises, and this is potentially as important for welfare as their low levels of income.

In contrast to richer countries, when aggregate income dips in poor countries, social expenditure tends to fall. So the state offers limited insurance. At the same time, poor, often rural, households are unable to borrow to maintain their living standards. They try to cope by, for example, cutting back on nutrition or private healthcare, taking their children out of school or sending mothers to work.

I investigate these mechanisms and find that attended births, antenatal care, child vaccinations and the probability of treatment for infectious diseases among children are lower in downturns. This is partly because the supply of public services declines. But there is also evidence that the demand for healthcare is lower.

This is consistent with lower earnings in a downturn but I show that it is also because mothers work harder and do not have as much time to seek healthcare. So it seems that households use maternal labour supply as an insurance mechanism. This imposes a cost in terms of their children's health, which has not been sufficiently recognised.

Rural mothers are more likely to work in downturns – and this has a cost in terms of their children's health

These results contrast with those for richer countries, where women work more in upturns, contributing to higher infant mortality at such times (Dehejia and Lleras-Muney, 2004). The difference in the cyclicality of child survival in the United States and India is driven by the difference in the cyclicality of maternal work. Indian women tend not to work unless they need to, but recessions stimulate distress work among poor women. Most of their additional work is in agriculture, often on their own farms.

The results suggest the need for mechanisms to shield the vulnerable from temporary falls in wages or increases in unemployment, which, as we have seen, have irreversible consequences. In addition to expanding safety nets such as the public food distribution system already in place in India, governments need to smooth social provision across the business cycle. Interventions that reduce poverty by raising wages, stabilising incomes and encouraging mothers to work and save in good times will all potentially improve child survival.

But the devil is in the detail. Women's work has been encouraged by provision of microcredit. An unintended consequence may be a worsening of child health and survival. Policies that increase work opportunities for women should be accompanied by improved provision of childcare facilities at the community level.

This article summarises `Fatal Fluctuations? Cyclicality in Infant Mortality in India' by Sonia Bhalotra, CMPO Working Paper 07/181.

For the full paper, see http://www.bris.ac.uk/Depts/CMPO/workingpapers/wp181.pdf

Further reading

Sonia Bhalotra (2007a), 'Wuthering Heights: Evidence on the Effects of Childhood Conditions on Height at Maturity in India', mimeograph, University of Bristol.

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Avon Longitudinal Study of Parents and Children (ALSPAC) Social Science User Group

A new user group is being set up for social scientists interested in working with data from the ALSPAC cohort study. A website that will provide new information about the resource tailored to the interests of social scientists will shortly be launched (watch out for announcement in future bulletins). There is also a monthly seminar series and a biennial workshop with presentations about the resource and the results of research with the ALSPAC cohort data. If you would like to join the user group, please email: alspac-socsci@bristol.ac.uk

CMPO working papers

Recent additions to the CMPO Working Paper series all of which, along with the rest of the series, can be downloaded from the CMPO website:

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