

EDITORIALS

Editorials are usually commissioned. We are, however, happy to consider and peer review unsolicited editorials

Tackling the NHS's unprecedented deficit and securing reform

The new government's response has so far largely missed the point

Kieran Walshe professor of health policy and management, Manchester Business School, University of Manchester, Manchester M15 6PB, UK
kieran.walshe@mbs.ac.uk

Judith Smith director and professor of health policy and management, Health Services Management Centre, University of Birmingham, Birmingham B15 2RT, UK

The Conservative Party finds itself unexpectedly in government without a coalition partner and able to pursue its own health policies at last.¹ It has called for seven day working in hospitals and primary care; sought improvements in rates of early diagnosis of cancer; and endorsed the vision in the NHS *Five Year Forward View*² of radically different models of care, such as integrated accountable care organisations and a stronger role for preventive care.

But many of these initiatives require an increase in health spending. In a review of the government's first 100 days,³ the King's Fund outlined the miscellany of government initiatives so far—financial control, devolution, quality and safety, primary care, mental health, public health, and social care. But Chris Ham, its chief executive, said that the immediate concern should be dealing with the looming financial crisis.⁴

The financial position is indeed dire. The Chartered Institute of Public Finance and Accountancy predicts a £2.1bn (€2.9bn; \$3.2bn) overall deficit for the NHS this year,⁵ two and a half times last year's record £820m deficit. Most NHS trusts and foundation trusts, including those that have been financially secure in the past, are forecasting substantial losses. The government response has been to issue edicts seeking to restrict spending and micromanage NHS organisations. But with half the financial year already gone and winter pressures ahead, it seems very unlikely that this will make much difference. The deficit results largely from four years of virtually zero real terms growth, rising emergency care demand, cuts in social care spending that shift costs into the NHS, and increased nurse staffing levels in response to the Francis inquiry.⁶

The NHS has survived such problems before, but much of the NHS organisational architecture and management capacity that used to deal with these pressures and broker local solutions was foolishly stripped out of the NHS in the Lansley reforms of 2012.⁷ There is no clear leadership at a regional level of the health system, and Monitor,



A rocky start

the NHS Trust Development Authority, and NHS England seem to be overwhelmed by the scale and pace of the financial problems.

During the 2015 general election campaign, the Conservatives promised to fund in full the extra £8bn a year that NHS England said was needed for the NHS by 2020² but failed to say when this would arrive. We therefore await the comprehensive spending review in November. The government is, however, understandably wary of giving the NHS more money without guarantees of a return on investment in terms of real service reforms, especially at a time when other public services continue to suffer swingeing real terms cuts.

There are two promising ideas in play which could support that kind of substantial service reform. Firstly, the Treasury has started to engage, apparently seriously, with the potential for radical devolution of health budgets to local government, opening the way to real integration of health and social care spending.⁸ Secondly, NHS England has set up a raft of “vanguard” sites to develop and test the new models of care sketched out in the *Five Year Forward View*.⁹

Plans to devolve control of about £6bn of health spending a year to local government and NHS leaders in Greater Manchester have excited much debate, partly because they seem to reverse a decades long trend of centralisation of power within the NHS. Other areas are now seeking similar devolved powers. Although it is too early to know what difference devolution might make, we can look to other countries (in the UK and Europe) to see health and social care services that are less fragmented and better led by democratically accountable local stakeholders. Although devolution is unlikely to save money in the short term, it could provide a politically safer and more sustainable context in which to make the radical

changes implied by the *Five Year Forward View*. Local authorities can claim a rather better record of fiscal self discipline and tough decision making than NHS organisations, especially in recent years.¹⁰

NHS England's programme of vanguard sites is now up and running, with substantial resources to invest in system reconfiguration and in evaluation.⁹ Equally importantly, there are changes emerging through locally led innovation—for example, new “super partnerships” of primary care doctors and integrated care organisations that straddle primary, social, and hospital care.^{11 12} It seems that at last service (rather than structural or organisational) change is being encouraged and supported, of a kind that can excite and engage clinicians and managers. Again, the new models of care are unlikely to save much money in the short term but have the potential

to reshape services and make them more affordable in the longer term.

An important barrier to these changes is the Health and Social Care Act 2012. Devolution and the vanguard models of care cut right across

the logic of competition and choice embedded in the legislation, which sooner or later will have to be substantially rewritten. The organisational structures and processes established by the act already look dated, and there is a real risk that these changes, entailing collaboration across health organisations, will get mired in legal challenges based on the act from others who lose out.

The government must tackle head-on the severity of the financial deficit facing the NHS, probably by committing new upfront funding in the comprehensive spending review. It should insist that the NHS embraces real service reconfigurations and change through the new care models and devolution arrangements and it should support local health economies through these transitions, including changing legislation where that is needed. In return, NHS managers and clinicians should seize the opportunities provided by the new care models and devolution to make service improvements that will make a real difference to patients.

Cite this as: *BMJ* 2015;351:h4670

Soft healing prioritises proactive prevention rather than reactive treatment and uses a range of strategies, not only the healthcare system, to promote wellbeing

Learning from soft power

A need for soft healing in the 21st century

Dariush Mozaffarian dean, Friedman School of Nutrition Science and Policy, Tufts University, Boston, MA 02111, USA dariush.mozaffarian@tufts.edu

Jordan A Blashke JD candidate, Yale Law School, New Haven, CT

James Stavridis dean, The Fletcher School, Tufts University, Boston, MA

The limitations of direct military intervention—“hard power”—for achieving foreign policy are increasingly highlighted by international events. Policy makers, military leaders, and intelligence experts now recognise the crucial role of preventive policy approaches—“soft power”—to tackle the multifaceted, upstream causes of conflict and instability.¹⁻³ Soft power encompasses diplomacy, development, trade agreements, sanctions, foreign aid, and the promotion of education, women’s rights, and democracy. It prioritises prevention, the shaping of international affairs to pre-empt or minimise crises before they arise, and is supported by bipartisan commissions, independent agencies, and the military.⁴ Hard power is reserved as a last resort. Used early and efficiently, soft power not only provides effective and diverse policy options, but it costs far less and risks fewer lives.

These hard learnt lessons in national security provide eye opening parallels to a second, major industrial complex: the healthcare system. The modern approach to health emphasises “hard healing”—the reactive, individualised treatment of risk factors and diseases. Like the military, healthcare systems benefit from highly trained, dedicated personnel who use complex, advanced, and dizzyingly expensive technologies to achieve a proximal aim: treating a disease.

And they both primarily respond to, rather than prevent, major crises. This is expensive and inefficient. Just as military interventions may resolve acute crises but leave behind fragile or deteriorating circumstances, medical care may resolve acute health exacerbations but does not tackle root sociocultural, economic, and environmental determinants of chronic disease. Both systems



Waging war on disease is expensive and inefficient

also represent massive industrial complexes that incentivise self sustaining growth and high tech intervention rather than prevention. In many countries, these are the most costly systems: in the US, for example, annual military expenditures approach \$700bn (£440bn; €610bn) and health system expenditures are \$2900bn—together making up 23% of gross domestic product.

Successful strategies

We propose the concept of “soft healing.” Like soft power, soft healing prioritises proactive prevention rather than reactive treatment and uses a range of strategies, not only the healthcare system, to promote wellbeing (box).⁵ Tools range from education and advocacy to economic incentives and multinational approaches. Examples of successful strategies include air and water regulatory standards to reduce contaminants and taxation and better sanitation and surveillance systems to prevent infectious outbreaks.

Just as soft power operates outside the military system to minimise conflict, improve national security, and reduce the need for costly, extended military campaigns, soft healing strategies complement the healthcare system to reduce population risk, improve health, and minimise the need for inefficient, costly medical treatments. The healthcare system must also be used for soft healing, analogous to deploying the military for peacekeeping missions rather than full scale military intervention. Soft healing must be prioritised in the health system to encourage behavioural and lifestyle changes in the popu-

lation. This might be achieved with integrated clinical teams, quality benchmarks, and reimbursement structures.⁶

Hard healing continues to dominate health policy and resources, despite the long history of advocacy for population health approaches by people such as Geoffrey Rose. Historical tradition, institutional incentives, and resource allocation are obstacles to balanced national approaches. In most nations, spending on public health and population research is dwarfed by healthcare, with billions of dollars being invested in precision medicine, drugs and medical devices, healthcare financing, incentive reform, and an ever expanding medical-industrial complex. These approaches can improve health but are often expensive, inefficient, and incremental. Meanwhile, soft healing approaches outside the healthcare system remain largely overlooked for tackling the pressing concerns of our time: diet, food systems, and lifestyle.⁵ Correcting these imbalances will require concerted, sustained efforts to reform strategic planning, re-allocate both money and personnel, and encourage private sector and multinational efforts. Moreover, better surveillance and communication systems are needed to inform decision makers.

We believe soft power provides a refreshing analogy for promoting the fundamental need for soft healing. Use of soft power enhances influence, promotes stability, reduces costly military interventions, and strengthens national security. Similarly, more soft healing will improve health, reduce costs, and enable government and corporate resources to be used for other crucial strategic investments. At the same time as seeking more individualised, precision medicine, we must also add robust, community facing, population medicine. Both health and economic considerations support this evolution. The broad national benefits should command strong support from the public and multiple political parties. A shift in focus towards soft strategies will create “smart” healing—a thoughtful, coordinated, and highly effective blend of both soft and hard tactics. The complex, multifaceted health challenges of the 21st century require a shift toward multicomponent soft approaches that use all appropriate tools to safeguard our health.

Cite this as: *BMJ* 2015;351:h4645

KEY TOOLS FOR SOFT HEALING

- Education
- Media and advocacy
- Environmental design and planning
- School and worksite programmes
- Economic incentives
- Healthcare system
- Surveillance
- Regulatory approaches
- Private sector
- National policies
- Multinational approaches

The full version of this table, with examples of successful strategies, is available online.

Although it is often assumed that the placenta protects the fetus, carcinogenic substances do cross the placental barrier, entering the fetal bloodstream

Diet, transplacental carcinogenesis, and risk to children

Dietary carcinogens cross the placenta, but we don't know whether this leads to childhood cancer

Denis L Henshaw scientific director, Children with Cancer UK, London WC1N 3JQ, UK d.l.henshaw@bris.ac.uk
William A Suk director, superfund research programme, National Institute of Environmental Health Sciences, National Institutes of Health, USA

With an estimated worldwide annual incidence of 175 000 and a rate below 200 cases per million, cancer in children is rare. Although survival rates have steadily improved, especially for leukaemia, the prognosis for other cancers remains poor, with brain tumours now the major cause of death from cancer in childhood. The aetiology of individual childhood cancers remains largely unknown, but interest continues in the possible role of environmental and lifestyle factors, especially given that incidence seems to be increasing.¹ The rarity of childhood cancer, however, creates severe challenges for epidemiology in that even national studies often lack statistical power to investigate possible environmental causes.

Childhood leukaemia is the most investigated and ionising radiation is an established cause. Other environmental exposures linked to increased risk include magnetic fields from the electricity supply,³ pollution from motor vehicle exhausts,^{4 5} and pesticides.⁶

Perhaps half of childhood cancers are initiated in utero. Could environmental carcinogens reach the fetus by transplacental transfer from maternal diet and thereby initiate carcinogenesis? Although it is often assumed that the placenta protects the fetus, carcinogenic substances do cross the placental barrier, entering the fetal bloodstream.¹⁰ Indeed, there is epidemiological evidence in children for such transplacental carcinogenesis.¹¹

In a linked Analysis article, Jos Kleinjans and colleagues describe their series of studies on transplacental carcinogenesis (the NewGeneris project¹²), which overcomes the problems of statistical power in conventional epidemiological studies. It marks an important step forward in our understanding of the topic.

They took paired blood samples from mothers and the umbilical cords of 1151 newborns from Denmark, Greece, Norway, Spain, and UK. They measured biochemical and cytogenetic biomarkers of exposure to carcinogens in the maternal diet and present in the fetal bloodstream: acrylamide (associated with deep fried



Exposed

potato products such as French fries and crisps), polycyclic aromatic hydrocarbons (associated with grilled and barbecued meats and smoked foods), oxidative fat metabolites (associated with vegetable oils), nitrosamines (in processed and smoked meats and fish), and dioxins and polychlorinated biphenyls (PCBs) (in meat, fish, and dairy products).

Crossing the placental barrier

In addition, laboratory measurements were made of transfer across placental samples. All of the above carcinogens readily crossed the placental barrier. The group used various assays to quantify the concentrations of carcinogens in cord blood. Though large variations in levels were present, fetal exposure was confirmed in most infants.

The group also determined the frequencies of micronuclei in lymphocytes in 467 newborns. Micronuclei represent a cytogenetic biomarker for chromosomal damage. Though the link is not confirmed in children, in adults occupationally exposed to carcinogenic compounds, micronuclei have been prospectively associated with cancer risk. Statistically significant associations

were found between features of micronuclei and exposure markers for oxidative fat metabolites and levels of dioxin and PCB related chemically activated gene expression.

Some children may be genetically predisposed or more susceptible to dietary carcinogens. They may lack DNA repair genes or display higher metabolic transformation. While the evidence remains limited, the NewGeneris data suggest a role for genetic predisposition in childhood cancer risk in association with fetal exposure to dietary carcinogens.

Whole genome gene expression levels were assessed in 120 newborns. Sex specific responses were found to acrylamide and dioxin exposure in boys, which may explain the higher leukaemia and overall cancer incidence among boys. Selected genes were examined for all 1151 newborns. Higher gene expression relating to generic processes involved in carcinogenesis was found, which seemed to be associated with markers of exposure to dietary carcinogens.

In other measurements, gestational age was shorter by about half a week in the highest compared with the lowest exposure levels. Some evidence was found for an association between exposure to acrylamide and polycyclic aromatic hydrocarbons and lower birth weight. Maternal intake of dioxin and PCBs was also associated with immunotoxic events during early childhood.

The NewGeneris findings provide explicit evidence of fetal exposure and biologically relevant responses to carcinogens present in maternal diets in a large sample. This is an important advance in our understanding of potential early stage, chemically induced carcinogenesis in children. However, we do not know what proportion, if any, of childhood cancer may be so attributed.

Prudent avoidance of consumption of cured meats in pregnancy is one area for consideration given a possible link with childhood brain tumours.¹⁰ Food safety agencies may wish to consider these findings and issue appropriate advice to food manufacturers and expectant mothers. However, many of the dietary carcinogens investigated are hard to avoid given their widespread presence in foods both nationally and globally.

Cite this as: *BMJ* 2015;351:h4636

● ANALYSIS, p 16

“When a doctor self-refers a patient to a hospital in which he or she is invested, that is fundamentally the wrong incentive and leads to the wrong behavior”

Should doctors own hospitals?

Financial incentives for physician owners can work against patients’ best interests

John A Romley associate professor of research, Leonard D Schaeffer Center for Health Policy and Economics, University of Southern California, Los Angeles, CA, USA
romley@healthpolicy.usc.edu

In the United States, nearly four out of five hospitals are private. As of 2010, more than 200 of these private hospitals were owned by doctors. In that same year the US Congress passed and President Obama signed into law the Affordable Care Act, a comprehensive package of healthcare reforms that prohibited (with limited exceptions) further development of “physician owned hospitals” (POHs).

The American Hospital Association supported this move, stating: “When a doctor self-refers a patient to a hospital in which he or she is invested, that is fundamentally the wrong incentive and leads to the wrong behavior.”¹

From this critical perspective, the linked paper by Blumenthal and colleagues examines the performance of POHs in the US in 2010.² Specifically, the authors compared the quality of care, cost of care, and patient population at POHs with those at non-POHs located within the same hospital referral regions.

Overall, POHs look largely benign in this study. In terms of quality, POHs were indistinguishable from non-POHs in the same region in a publicly reported patient satisfaction survey, and in the provision of appropriate care for patients with heart attack, heart failure, and pneumonia. POHs achieved comparable rates of risk adjusted 30 day mortality and readmissions among elderly patients with public Medicare insurance coverage.

The patient mix at POHs was favourable, but only modestly. For example, the average age of patients with Medicare was 77.4 years at POHs compared with 78.4 years at non-POHs. Mortality risk was similar for POHs and non-POHs, as were hospital costs and Medicare payments. POHs were accessible to disadvantaged populations, such as racial and ethnic minorities and patients on a lower income with public Medicaid insurance.

Perhaps these findings are not fully representative. Almost half of POHs in the US in 2010 were “specialty hospitals”—that is, facilities with a narrow scope of care, often cardiac or orthopaedic surgery. Incentives for self serving behaviour are stronger in this context. Specialty hospitals are often small, and in so far as profits are split



among fewer owners, a doctor’s clinical decisions have a magnified impact on his or her earnings. These facilities have clear reason to limit themselves to well compensated services, potentially endangering the viability of general hospitals, which provide the full array of inpatient care. In their defence, specialty hospitals may succeed as “focused factories” that deliver high quality care at reasonable cost. If true, seemingly perverse incentives could serve the public interest.

Against this backdrop, Blumenthal and colleagues compare specialty POHs with general POHs. Patients with Medicaid were under-represented at specialty POHs. Moreover, patients treated at specialty POHs had less severe health problems, with a 30 day mortality risk of 5.9% compared with 9.9% at general POHs. Yet these patients were substantially more likely to be re-admitted within 30 days of initial discharge. Treatment costs were no lower at specialty POHs.

Cherry picking

Previous studies of physician ownership have examined mainly specialty hospitals and found similar patterns of dealing with healthy and wealthy patients.^{3 4} There is even some evidence of increased population rates of surgery in areas with a specialty hospital.^{5 6} Specialty hospitals may not simply capture market share from general hospitals but may also create new patients. In distinguishing physician ownership from specialty orientation, Blumenthal and colleagues are able to paint starkly different portraits of specialty and general POHs. This distinction is lost in legislation under consideration by the US congress to loosen the current prohibition on the development of POHs. The weight of evidence suggests that specialty hospitals can result in substantial harm to the public’s health. It is rea-

sonable to worry that physician ownership of specialty facilities exacerbates this harm.

The proposed law, “The Promoting Access, Competition and Equity Act,” reflects a view that competition within private markets benefits consumers, even in healthcare. While the majority of US hospitals are private, most of these facilities operate on a not for profit basis. One explanation is that non-profit organisation allows for competition, while restraining the temptation to exploit patients for financial gain.⁷

Regardless of the dominance of non-profit organisation, there is considerable scepticism in the US and elsewhere about the role of the private sector in healthcare. This scepticism is understandable. Still, politicians and technocrats have their own incentives and may not always represent society’s best interests. In the United Kingdom, for example, the government pays nurses in public hospitals on a nearly equal basis throughout the country. Consequently, hospitals in areas with high wages experience shortages of skilled nursing, and patients after heart attack are less likely to survive.¹⁰

As peculiar as the US health system may be, the influence of incentives, which is at the heart of the debate around physician ownership, extends beyond doctors, inpatient services, and the US. To begin with, doctors hold ownership interests in hospitals elsewhere, including Brazil and India. Moreover, there is wide variation in the public versus private orientation of healthcare across the globe. Whatever balance is struck between public and private sectors (including private ownership of hospitals by doctors), incentives within both, financial and otherwise, can have substantial consequences for the quality and cost of healthcare.

[Cite this as: BMJ 2015;351:h4615](#)

● RESEARCH, p 13