ageing" in the United States. The message of that programme is that it is almost never too late to begin healthy habits such as smoking cessation, sensible diet, exercise, and avoiding obesity. Moderate exercise dramatically increases physical fitness, muscle size, and strength in older people; improves balance; reduces the risk of falls; counters the development of frailty; and cuts the risk of dying. Maintaining physical fitness is perhaps the single most important thing an older person can do to remain healthy.

Developments in technology will also be important. Assistive technology is the umbrella term for any purpose designed device or system that allows people to perform a task they would otherwise be unable to do. Devices of this kind are important as aids to mobility and other daily activities, allowing older people to stay longer in their own homes. It is increasingly possible to extend control of the home environment beyond the familiar television remote control-to adjusting heating, opening curtains, switching on power points, opening and locking doors, as well as providing acceptable external monitoring. Adapting the standard paging device to prompt those with failing memory is another attractive possibility, an example of the way in which advances in microelectronics and miniaturisation for consumer goods generally should yield benefits for assistive technology. But markets for assistive technologies tend to be small and fragmented, leading to high prices and underdeveloped design.9

The biggest impact of technology on age associated disability may come instead from inclusive design, an approach which aims to extend usability through thoughtful design based on a comprehensive understanding of the capabilities of the whole population—including older people. For instance, the latest London taxi is claimed to be the world's most accessible, the design being based on research and consultation with disability groups to improve access for all, including wheelchair users. For housing, the inclusive design approach points to "lifetime homes," designed at the outset to be capable of adaptation to meet future needs—for instance, having space for wheelchair use, the absence of ground floor steps, an accessible downstairs lavatory, and room for a future stair lift.

Matching this growing recognition of the potential to improve quality of life and reduce dependency in old age, has been increased funding for research. Four of the United Kingdom research councils have initiated modest targeted research programmes, and there are significant initiatives from some of the medical research charities, as well as an important new European Union research programme.¹⁰

Research on ageing and age associated conditions spans a wide range of disciplines. In this situation it is hard to assess whether the scale, scope, and coordination of the current UK research effort is about right. This could be a task for the panel on the ageing population included in the new round of the government's Foresight initiative. Beyond that, research findings need to be demonstrated in practice and disseminated widely, which would be a natural responsibility for the standing National Care Commission suggested by the royal commission.

We need to make an impact on disability in old age over the coming 50 years comparable to that which led to the closure of sanatoriums for infectious diseases and asylums for mental illnesses over the past 50. At least part of the answer to the dilemma faced by the government, in contemplating its response to the royal commission's proposals, is to foster innovation that will reduce the scale of disability in old age.

David Metz director

AgeNet, Wolfson Institute of Preventive Medicine, St Bartholomew's and the Royal London School of Medicine and Dentistry, Charterhouse Square, London EC1M 6BQ (d.h.metz@mds.qmw.ac.uk)

Agenet is funded by the Medical Research Council, BUPA, SmithKline Beecham, Research into Ageing, Westminster Health Care, and the Office of Science and Technology.

Beds in the NHS

The National Bed Inquiry exposes contradictions in government policy

News p 463

anuary was a tough month for British health ministers, as a flu epidemic put the inadequacies of the NHS on the front page of most newspapers, but then it's been a tough two decades for patients and staff in the NHS. The political remedy for the chronic underfunding of the NHS has been perpetual revolution through reorganisation. Recent acute hospital and NHS service reconfigurations around Britain show how management and political reputa-

tions have been staked on exploiting the apparently bottomless pit of clinical productivity to fund investment. But judging by rising waiting lists, growing patient dissatisfaction, and low morale among staff, modernisation appears to be a recipe for reducing capacity and loss of service. A government inquiry has now provided the hard data to confirm this impression

The National Bed Inquiry, commissioned in 1998 by the Secretary of State for Health to test the hypoth-

BMJ 2000;320:461-2

Royal Commission on Long Term Care. With respect to old age: long term care—rights and responsibilities. London: Stationery Office, 1999 (Cm 4192-1)

² Murphy E. With respect to old age. *BMJ* 1999;318;681-2.

³ Royal Commission on Long Term Care. With respect to old age: research volume 1. London: Stationery Office, 1999 (Cm 4192-II/1):38.

⁴ Grimley Evans J, Holliday Ř, Kirkwood TBL, Laslett P, Tyler L. Ageing: science, medicine, and society. *Phil Trans Roy Soc London: Biol Sci* 1997;352:1761-920.

⁵ Kirkwood T. Time of our lives: the science of human ageing. London: Weidenfeld and Nicolson, 1999.

⁶ Grimley Evans J. Implications for health services. Phil Trans Roy Soc London Biol Sci 1997;352:1887-93.

⁷ Prophet H, ed. Fit for the future: the prevention of dependency in later life. London: Continuing Care Conference, 1998.

⁸ Rowe JW, Kahn RL. Successful aging. New York: Dell, 1999.

⁹ Cowan D, Turner-Smith A. The role of assistive technology in alternative models of care for older people. In: Royal Commission on Long Term Care. With respect to old age: research volume 2. London: Stationery Office, 1999 (Cm 4192-II/2).

¹⁰ European Commission. Fifth framework programme: improving the quality of life and management of living resources. http://www.cordis.lu/fp5/home.html

¹¹ Office of Science and Technology. Blueprint for the next round of Foresight. London: Department of Trade and Industry, 1998.

esis that bed closures had gone too far, was finally published last week in the form of a consultation document and supporting analysis. The consultation document, Shaping the future NHS: long term planning for hospital and related services, shows not only that is there is little scope for productivity gains but also that there is no spare capacity in the NHS. The current system cannot keep pace with need. The report projects that up to 2003-4 an increase of 2000 (1.4%) general and acute beds and 2000 intermediate care beds will be required for the NHS along with 1000 extra general practitioners and unspecified numbers of nursing and home help staff.

The expansion in staff and bed numbers is modest. More importantly, however, the report leaves a policy paradox on which the bed inquiry is curiously silentabout what Alan Milburn has described as the "the largest ever hospital building programme in the history of the NHS." Financed under the private finance initiative this programme is associated with reductions in acute bed provision of around 30% and cuts in operating budgets and staff numbers of up to 25%. In the 11 first wave hospital schemes financed through the initiative over 2500 beds will be lost over the next five years. $^{\text{\tiny 3-6}}$ For example, the scheme for the Worcester Royal Infirmary NHS Trust is based on "forecasts of future performance which show that the trust will have too many beds." It proposes a reduction in number of acute inpatient beds of 28% against an increase in finished consultant episodes from 1995-6 to 2000-1 of 13%. Nationwide there are 32 such major schemes in progress.

But, as the beds report shows, not only have acute bed numbers remained static against rising caseloads over the past five years, but also increases in clinical productivity, measured by length of stay, throughput, and bed occupancy, have come to a virtual standstill. Of the planning assumptions which underpin the 32 new replacement hospitals to be built under the private finance initiative the report says: "on the evidence of recent trends and the other material we have collected, service configurations based on assumptions about major bed reductions are unlikely to be (safely) attainable unless expanded intermediate and community services are put in place."

The government has the immediate problem of reversing the reduction in bed numbers, staff, and operating budgets brought about by its current policy of financing new investment through private funding. In an attempt to do so it presents in the consultation document three scenarios for a 20 year investment strategy for NHS acute beds (recognising that most of these serve older people), on which it is inviting comments.

Each has echoes of current public consultations on hospital reconfigurations. The first option maintains the current direction but requires an increase of 8000 (6%) NHS general and acute beds and $30\,000$ overall. The second envisages an increase of $35\,000$ (26%) NHS beds, with $22\,000$ more "intermediate" nursing and residential care beds. The third option, which fits with current policies, again envisages a doubling of day cases but a total reduction in NHS general and acute beds of $12\,000$ (-8.5%) to be offset by an expansion in intermediate care beds in the sector which currently provides mainly private nursing and residential care. The supporting analysis² appears to indicate that areas

with higher rates of institutional long term care provision and district nursing have lower rates of acute admissions and better discharge policies. But some separately commissioned papers included in the report show that the evidence is weak at best that hospital at home and other early discharge schemes reduce overall hospitalisation and the need for acute hospital beds. Similarly, the evidence that primary care services substitute for secondary care is insufficient.²

Crude as they are, beds are an indication of patterns of provision, staffing levels, resources, and service capacity across the NHS. In the great wave of privatisation which took place under the Conservative administration of the 1980s NHS rehabilitation, convalescent, and long term care beds vanished and so too did the care staff, the services, and the resources. NHS continuing care provision is reduced to a handful of beds in many health authorities and subject to stringent eligibility criteria. For the 400 000 plus frail and vulnerable people living in mainly private institutions in England the "poor law test" applies: care is a private responsibility substantially outside the remit of the NHS. Older people, who will be among those most affected by policies which bring "care closer to home," will be concerned to ensure that the current unfairness in the system identified by the Royal Commission is not exacerbated by the failure to identify the source and amount of funding and the location of staff and services.8

In the immediate term the report calls into question the entire basis of the Treasury's capital investment strategy for the NHS. The introduction of the internal market in 1991, together with the introduction of the capital charging regime, annual efficiency savings of 3%, and the private finance initiative are all policies designed to release funds for investment by eliminating surplus capacity and increasing clinical productivity. The National Bed Inquiry is an important watershed. Will the government have the courage to embark on the policy U turn the evidence now requires? Or will the report simply become a blueprint for the expansion not of the NHS but of private health care?

A M Pollock professor

Health Policy and Health Services Research Unit, School of Public Policy, University College London, London WC1H 9EZ (allyson.pollock@ucl.ac.uk)

M G Dunnigan senior research fellow

Department of Human Nutrition, University of Glasgow, Glasgow

We ask all editorial writers to sign a declaration of competing interests (www.bmj.com/guides/confli.shtml#aut). We print the interests only when there are some. When none are shown, the authors have ticked the "None declared" box.

Department of Health. Shaping the future NHS: long term planning for hospitals and related services. Consultation document on the findings of The National Beds Inquiry. London: Department of Health, 2000.
Department of Health. Shaping the Future NHS: long term planning for hospitals.

Department of Health. Shaping the Future NHS: long term planning for hospitals and related services. Consultation document on the findings of the National Beds Inquiry: supporting analysis. London: Department of Health, 2000.
Gaffrey D, Pollock AM. Can the NHS afford the private finance initiative?

³ Gaffney D, Pollock AM. Can the NHS afford the private finance initiative? London: BMA, 1997

⁴ Gaffney D, Pollock AM, Price D, Shaoul J. NHS capital expenditure and the private finance initiative—expansion or contraction? BMJ 1999; 319:48-51.

⁵ Gaffney D, Pollock AM, Price D, Shaoul J. PFI in the NHS: is there an economic case? BMJ 1999;319:116-9.

⁶ Pollock AM, Dunnigan MG, Gaffney D, Price D, Shaoul J. Planning the "new" NHS: downsizing for the 21st century. *BMJ* 1999;319:179-84.

⁷ Worcester Royal Infirmary NHS Trust. Proposals for a new hospital in Worcester. Full business case as approved by NHS Executive and HM Treasury on 19 March 1999. Worcester: Worcester Royal Infirmary NHS Trust, 1999.

⁸ Royal Commission on Long Term Care. With respect to old age: long tern care—rights and responsibilities. London: Stationery Office, 1999.

Gaffney D, Pollock AM, Price D, Shaoul J. The politics of the private finance initiative and the new NHS. BMJ 1999;319:249-53.