underlying conditions, often tobacco related, may provide an alternative explanation in most instances.[7 8] In the agency's thorough review, the data on adverse events associated with bupropion are similar to data in published global clinical trials—there were no new trends or surprises.

The dramatic shift in public opinion is reminiscent of the media coverage six months after nicotine patches were released in the United States a decade ago. Doctors working in emergency departments reported to the United States Food and Drug Administration that many patients who were admitted for myocardial infarctions were using nicotine patches. The media reported the story widely.[9] In contrast with the prolonged media attention in the United Kingdom about bupropion, however, the stories ended abruptly a month later after the Food and Drug Administration's decisive report that there was no increased risk of myocardial infarction associated with nicotine replacement.[10] A subsequent trial showed that patches were safe to use specifically in patients with cardiac disease.[11] Unfortunately, although the experts were convinced of the safety of nicotine patches, many smokers still believe the original media messages that "if I use a patch and smoke even one cigarette, I might have a heart attack."

The report from the National Institute for Clinical Excellence sends a clear message about the efficacy and safety of nicotine replacement and bupropion in treating tobacco dependence—similar to the US public health service's clinical practice guideline of June 2000.[12] Clinicians should give clear messages to their patients that it is much safer to use either of these drugs to help their attempts to quit than to continue smoking. Unfortunately, much damage has been done.

Medical and nursing schools, medical specialty training programmes, continuing professional development programmes, and medical journals should educate doctors and nurses about their crucial role in developing the skills to help their patients to give up tobacco.[13] Tobacco treatment specialists and public health agencies need to refute the inaccuracies of the media and present a clear picture of the enormous problem of preventable disability and the 120 000 tobacco related deaths a year from the 13 million smokers in the United Kingdom.

Linda Hyder Ferry *associate professor*

Departments of Preventive Medicine and Family Medicine, Loma Linda University School of Medicine, Loma Linda, CA 92350 USA (LHFerry@aol.com)

LF has been a consultant to several pharmaceutical companies including GlaxoSmithKline, Eli Lilly, and McNeill Pharmaceuticals and has received funds for research and travel.

1 National Institute for Clinical Excellence. *Guidance on the use of nicotine replacement therapy (NRT) and bupropion for smoking cessation*. London: NICE, March 2002. http://www.nice.org.uk/Docref.asp?d=30617 (accessed 25 Apr 2002).
2 Department of Health. *Smoking kills*. A *white paper on tobacco*. London: Stationery Office, 1998.
3 Royal College of Physicians. *Nicotine addiction in Britain*. London: RCP, 2000.
4 Cantor JC, Baker LC, Hughes RG. Preparedness for practice: young physicians' views of their professional education. *JAMA* 1993;270:1035-40.
5 Ellis R. Anti smoking drug deaths: 18 smokers die after treatment with 'wonder cure' Zyban. *Mail on Sunday* 2001; February 18.
6 Department of Health. Statistics on smoking cessation services in health authorities: England, April-September 2001. www.doh.gov.uk/public/smokingapril01.htm and www.doh.gov.uk/public/press14feb.htm (both accessed 25 Apr 2002). (Statistical press releases.)
7 Medicines Control Agency. *Zyban (bupropion HCl SR) safety update*. 8 April 2002. (www.mca.gov.uk) (accessed 25 Apr 2002).
8 Committee on the Safety of Medicines. *Important safety message: safety of Zyban*. Statement released by Professor Alisdair Breckenridge, Chair of the Committee on the Safety of Medicines, 26 April 2001. (www.mca.gov.uk/ourwork/monitorsafequalmed/safetymessages/zyban.htm) (accessed 25 Apr 2002).
9 Hwang SL, Waldholz M. Health: Heart attacks reported with nicotine patches while still smoking. *Wall Street Journal* 1992; June 19:B-1.
10 Food and Drug Administration, Department of Health and Human Services, Drug Abuse Advisory Committee. Twenty-third meeting, July 14, 1992, Rockville, Maryland.
11 Joseph, AM, Norman SM, Ferry LH. The safety of transdermal nicotine as an aid to smoking cessation in patients with cardiac disease. *N Engl J Med* 1996;335:1792-8.
12 Fiore MC, Bailey WC, Cohen SJ, Dortman SF, Goldstein MG, Gritz ER, et al. *Treating tobacco use and dependence. Clinical practice guideline*. Rockville, MD: US Department of Health and Human Services, Public Health Service, 2000.
13 Ferry LH, Grissino LM, Runfola PS. Tobacco dependence curricula in US undergraduate medical education. *JAMA* 1999;282:825-9.

Intermediate care

Appealing and logical, but still in need of evaluation

Intermediate care describes care given after traditional primary care and self care, but before or instead of the care that is available deep inside large acute hospitals.[1] It seems to address one of the limitations of many health systems: the lack of a wide range of specific and integrated facilities that can address complex needs. Going too far along a clinical pathway into a large acute hospital or remaining there for too long because no alternative facilities exist is wasteful, dangerous, and inconvenient. Examples of services that are intermediate between traditional primary care and secondary care include pre-admission assessment units, early and supported discharge schemes, community hospitals, domiciliary stroke units, hospitals at home, and rehabilitation units.[2]

Although an important feature of intermediate care is its location, the term intermediate also refers to care that is organised and delivered by teams of different professionals and organisations. The progressive erosion of barriers between doctors and other clinical professionals, between social and health services, and between statutory and non-statutory services provides important opportunities to smooth the many interfaces throughout the system.[3] The implementation of the NHS Plan makes the case for a radically different relation between health and social services, particularly in improving care for older people.[4] As the Wanless report suggests, financial incentives may need to be strengthened to minimise blocking of hospital beds.[5] Complex health care without hospitals should be as normal as self care without professionals.[6]

Intermediate care is compelling because it can theoretically increase throughput and capacity. Most large specialised hospitals have many bed days occupied by people awaiting discharge. The National

BMJ 2002;324:1347–8

Bed Inquiry emphasises the inappropriate use of many acute hospital beds.[7] The issue is not the number of beds but how they are used. The prevalence of chronic disease may be rising, but that is little epidemiological justification for increasing emergency admissions: rather, for more care. Teams of specialists and clinical directors (be they from primary or specialised care) with budgets specific to programmes can bridge organisational and professional barriers and span previously fixed and inflexible budgets.[8]

Secondly, intermediate care also has the potential to offer equally effective care closer to home. Assuming the facilities and funding exist, this is good for services, carers, and patients.

Thirdly, technological evolution allows more diagnosis and treatment in the community. Information technology with NHS Direct, "near patient testing" by community staff and patients themselves, and electronically summoned assistance for vulnerable people living independently are all being developed to meet demand and need more conveniently and cost effectively.

Fourthly, if some services really are as effective outside the hospital, then this whole system approach is likely to be more cost effective.

Finally, primary care now faces the organisational opportunity to address what may be the main obstacle to modernisation and reform: the historical configuration and working practices of acute general hospitals. Integrated systems with integrated budgets (such as combined health and social care trusts) can ensure more rapid placements of people who no longer need to be in big hospitals after the acute episode. This needs a coordinated response based on evidence, cost, and patient preference, which minimises crises and where long term institutional care is a last resort.[9]

Intermediate care is an important part of modernisation. Service development needs to recognise and respond to epidemiological reality and technical opportunity. Intermediate care schemes can help shift the balance of power from secondary care to primary care and empowered self care. National service frameworks emphasise the importance of agencies developing joint investment plans, especially when improving services for older people. But the same framework reminds us that most schemes for intermediate care generate either no evidence or evidence of little effect. Evaluative evidence of intermediate schemes is scarce.[10] We may be implicitly sacrificing one dimension of quality, notably long term clinical outcome, for another, such as short term convenience. Clinicians and managers should remain vigilant in balancing carefully the wishes of patients and politicians against clinical need.[11] Schemes for intermediate care need to avoid inefficient duplication of services in a system starved of resources.[9] Providing alternatives to current services can easily make the system more costly, especially if an increased supply reduces thresholds for referral from elsewhere. Wholesale re-engineering that provides significant reductions in overheads is a necessary step in genuinely improving efficiency. Unlike a waiting list, which is usually an inconvenient and dangerous method of deferring demand, intermediate care can be used as a genuine way of managing demand better.[12]

Successful schemes for intermediate care seem to develop as an integrated system of professional teams where multiple assessments are avoided, the sharing of skills is promoted, and there is a single point of contact about timely access to non-hospital alternatives. There is a clarity of purpose ranging from the overall purpose of a scheme (for example, an aim to return people to their home) to the details of admission and discharge protocols. Without such clarity, the effectiveness of such schemes is impossible to assess, and the contributions of many professionals are difficult to integrate.[8] Schemes for intermediate care are undoubtedly as difficult to evaluate as they are logical to implement. We will, however, never be sure we are increasing capacity, cost effectiveness, and convenience if we fall into the historically bad habit of believing more than we understand.

David Pencheon *director*

Public Health Observatory, Institute of Public Health, Cambridge CB2 2SR (pencheond@rdd-phru.cam.ac.uk)

1 Hull S, Jones I. Is there a demand among general practitioners for inner city community hospitals? *Quality Healthcare* 1995;4:214-7.
2 Department of Health. *Intermediate care*. London: Department of Health, 2001. Health Service Circular 2001/01. (Circulars on the Internet, www.doh.gov.uk/intermediatecare/index.htm, accessed 9 May 2002.)
3 Vaughan B, Lathlean J. *Intermediate care: models in practice*. London: King's Fund, 1999.
4 Department of Health. *Delivering the NHS Plan. Next steps on investment. Next steps on reform*. London: Stationery Office, 2002. www.doh.gov.uk/nhsplan/ (accessed 9 May 2002).
5 HM Treasury. *Securing our future health: taking a long-term view—the Wanless review*. London: HM Treasury, 2002.
6 Steiner A. Intermediate care—a good thing? *Age Ageing* 2001;30:33-9.
7 Department of Health. *Shaping the future NHS: long term planning for hospitals and related services. Consultation document of the findings of the national beds inquiry*. London: Stationery Office, 2000.
8 Light D, Dixon M. Intermediate care. A new way through. *Health Service J* 2000;110:24-5.
9 Hadridge P, Newman P. *Opportunities in intermediate care: Anglia and Oxford Intermediate Care project*. Milton Keynes: NHS Executive: Anglia and Oxford, 1997.
10 Department of Health. *National service framework for older people*. London: Stationery Office, 2001. www.doh.gov.uk/nsf/olderpeople.htm (accessed 30 Apr 2002).
11 Ebrahim S. New beginning for care for elderly people? Proposals for intermediate care are reinventing workhouse wards. *BMJ* 2001;323:337-8.
12 Edwards N, Hensher M. Managing demand: managing demand for secondary care services: the changing context. *BMJ* 1998;317:135-8.

Delaying folic acid fortification of flour

Governments that do not ensure fortification are committing public health malpractice

The failure of European governments to mandate universal fortification of flour with folic acid has allowed a continuing epidemic of preventable human illness. It is ironic that the United Kingdom has not required fortification, as it was a randomised controlled trial from the United Kingdom that conclusively proved that supplementation with synthetic folic acid prevents about 75% of spina bifida and anencephaly—common and serious birth defects.[1] This study provided the primary scientific basis for the

BMJ 2002;324:1348–9