and one hypothyroidism. At no time did the growth of either falter, nor did any of the remainder of the cohort cross a height centile band, at least not before puberty. This should lay to rest any concern that important new disease will be missed after the age of 5 without further measurements. The most recent guidelines concede that velocity estimates are unreliable but nevertheless propose that the height charts of short children should be checked for movement across centile bands.<sup>9</sup> The evidence, however, is that the sensitivity and specificity of these measures in identifying silent disease is inadequate.<sup>10</sup>

It remains unclear whether more frequent height checks from infancy, a greater awareness of signs and symptoms other than short stature, or a single measurement of height would best identify growth related disease. The evidence so far suggests that the single measurement at school entry is the most sensitive anthropometric marker for silent disease.<sup>3</sup> At that age very short stature must result from sustained slow growth. Further proof of growth failure is unnecessary and any concern about disease missed is best addressed, not by awaiting additional measurements, but by improving clinical acumen. Short, but otherwise healthy, school entrants can also be reassured that they are no more likely to become ill than their taller peers.<sup>8</sup> To be spared repeated height checks in school would come as a relief to many. The debate will undoubtedly continue unless resolved by a large scale prospective community study. Until then there is no evidence that growth monitoring, as opposed to height screening, is a cost effective use of scarce resources.

Linda D Voss Senior research fellow

Wessex Growth Study, University Child Health, Southampton General Hospital, Southampton SO 16 6YD

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## Evidence based mergers?

Two things are important in mergers: clear goals, clearly communicated

The NHS seems to be in the grips of "merger mania." Why is this happening and why now? More importantly, on what basis do we judge whether the merger of two or more NHS organisations is successful and is there an evidence base on how to manage them?

Seventeen mergers of NHS trusts took place in England in 1991-7.<sup>1</sup> The cycle of trust establishment and merger activity follows the NHS financial year. Twenty three mergers came into effect from 1 April 1998, and ministers are considering further proposals for April 1999. In Scotland's current "reconfiguration" the number of trusts is planned to reduce from 47 to 26, and in Wales 26 trusts will be reconfigured into 16 by April 1999. The government sees these mergers as "evidence of a new cooperative culture developing inside the NHS." Laudably the key test that will be applied in judging the merits of merger proposals will be whether they improve patient care. All will also have to lead to proved reductions in bureaucracy.<sup>2</sup>

Mergers occur in mature industries because of trends such as globalisation, increased competitiveness, and government deregulation policies: thus many examples exist in the airline, telecommunications, pharmaceutical, and utility industries. The last government's introduction of the internal market into the NHS and associated deregulation, albeit mild, stimulated merger activity in the early 1990s. Certain trust mergers in London were perceived as "shotgun marriages" forced by the Tomlinson report—a government intervention in a market place which was beginning to take hold and to wound major teaching hospitals.

Other than edict, what are the reasons for merger? Clearly there are economic reasons. Economies of scale (operating efficiently at higher rather than lower levels of production) and economies of scope (centralising multiple services to ensure critical linkages) are both often cited as rationales. Merger is also a legitimate device to deal with excess capacity in the local health economy, as evidenced by many proposed mergers resulting from reconfigurations of acute services within a whole health authority area. The "concentration" of services on one site is also driven by the reform of medical staff training, reduced hours of working for junior doctors, the trend towards subspecialisation, and in some cases by national service guidance such as the Calman-Hine recommendations on cancer services; we can expect more of the last sort through the national service frameworks proposed in the English white paper on the NHS.<sup>8</sup>

During early 1995 the pursuit of power in the marketplace could have been cited as a powerful reason for merger; now it is truer to say that the power which accrues from being a substantial player on the local health scene has become the goal—in order to attract and keep staff, raise capital, and work flexibly across multiple services. Finally, the downward pressure on management costs is a further factor. Mergers offer organisations potentially large savings on senior management positions and board structures.

What is the evidence about the outcome of mergers in the health sector? As with the commercial world, very few data exist. A recent economic review states, "The evidence of the impact of mergers in the health

<sup>1</sup> Robinson R. Effective screening in child health. BMJ 1998;316:1-2.

sector is inconclusive and suggests that the expected benefits from mergers often do not materialise."<sup>1</sup> The Department of Health's guidance on the operation of the internal market in 1994 summarised the literature on mergers relating to economies of scale and scope and to quality. It concluded that the evidence is at best mixed, that studies are subject to substantial methodological problems, and that the evidence from this literature cannot be used alone to justify decisions on reorganising services.<sup>4</sup> The NHS and other health organisations internationally clearly need methodologies to support benefit analysis of merging healthcare organisations.

Because of the lack of sound evidence, we have a government encouraging mergers as an act of faith-albeit with the intention of improving patient care. So how do we ensure that mergers are successful? Evidence from the literature of organisational behaviour does exist, and, ironically, it shows that many mergers fail. Studies in the United States show that as many as 75% of mergers of hospitals are unsuccessful when issues surrounding corporate culture are ignored. "Employee problems" are said to be the cause of as many as half of all merger failures.5 Reflect back on the recent proposed (and then aborted) merger of SmithKline Beecham and GlaxoWellcome and we find very senior employees having problems with the deal. In reorganisations of acute health services in the United Kingdom and abroad it has been shown repeatedly that carefully thought out plans for merging services are extraordinarily difficult to accomplish (London Implementation Group archives 1994-5).<sup>6</sup>

Successful organisational mergers require focus on two critical elements: the clarity of the goals of the merger and how the process itself is managed and communicated.<sup>7</sup> The general secretary of the Royal College of Nursing recently commented, "Communicating with clinical staff and patients—sharing the vision of where you're going—is central to managing mergers successfully."<sup>8</sup> She is right. Managing the process of bringing together two or more trusts successfully requires sophisticated project management supported by carefully thought out staff handling policies.

Mergers will be the right thing for a community only when there is a convincing case to be made locally for the merger and when potential service benefits outweigh the considerable human and organisational costs of making the change happen. Ways must be found to assemble evidence on the benefits of merged NHS organisations and on how to manage the process of merging. Such evidence can then be used by the leaders of this change, both the national policy makers and those on local boards charged with bringing organisations together in the new post-market NHS.

## Pam Garside Management consultant

NewHealth, London W1N 1DL (PamGarside@compuserve.com)

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## The impact of new technologies in medicine *Call for papers*

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e have a lifestyle drug for almost every ill, surgical procedures which could render admission to hospital redundant, and communication networks which exceed all expectations. The space age world of medicine is not far off. But in some quarters there is a slowly growing backlash against such developments. Far from being welcomed with open arms, some of the latest adventures in medical wizardry are being held up as threatening, divisive, and dangerous.

In November 1999 the *BMJ* will be joining other medical journals worldwide in devoting an entire issue to the impact of "new technologies in medicine." Our aim is to stimulate *BMJ* readers to think about the impact of technology so that they are better able to take responsibility for shaping its effects on health. We will be looking at several new developments in medicine—diagnostic, therapeutic, and conceptual—as well as confronting and challenging some of the anxieties and fears that are fuelling the antitechnology lobby. New technology is not simply about new machines, but also about the way we look at and think about things. Our definition of technology is any intervention which influences health and society. So while we will highlight some of the ways technology may improve the lives of patients microsurgery, informatics, transplantation, gene therapy, and dialysis—we will also be debating some of the ethical issues, such as how the doctor-patient relationship is changing under the influence of the world wide web, the ethics of keeping "expensive" patients alive, whether new technology is simply increasing the gap between the haves and have nots, and how to regulate the global explosion of new technologies. Our remit is broad.

We are viewing this issue of the *BMJ* as an opportunity to expand in directions we do not usually pursue, but with the intent of remaining clinically grounded. We are happy to consider reports of original research, educational articles, debate pieces, and rigorous review articles looking at the impact of new technology in its widest sense. We have recruited a small international panel of experts to help us decide what to publish. All manuscripts will go through the usual peer review process, and the deadline for submission is 1 May 1999.

Abi Berger Science editor, BMJ

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