PRIME MINISTER

NHS REFORMS AND IT SYSTEMS

Sir David Wolfson popped in yesterday to ask about further Ministerial consideration of implementing the NHS reforms.

I said that there had been further Ministerial discussions but that no firm decisions had taken place.

He gave me the attached article which sets out clearly the scope of the IT problem facing the health service. It is worth a quick read.

You will recall that the conclusion of this week's Ministerial meeting was that Mr. Clarke should make a presentation on his proposals for implementing the reforms. This would provide an opportunity to consider how Mr. Clarke's approach and that of the Chief Secretary's could be more closely aligned.

I am in touch with the Department of Health to find a suitable date.

Do you want to invite Sir David to attend the presentation?

BHP

BARRY H. POTTER

18 May 1990

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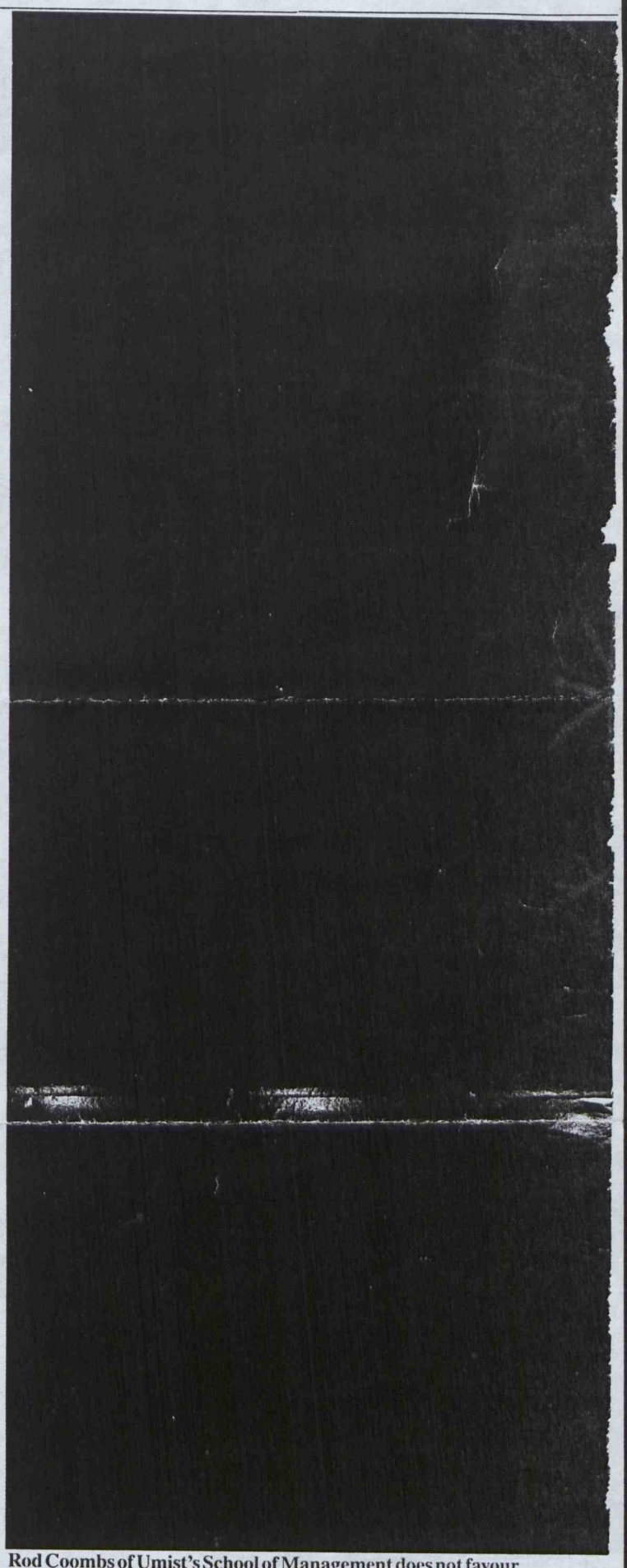
Cure-all?



Rod Coombs of Umist's School of Management does not favour

The NHS is facing the most radical shake-up in its short history and IT systems sit at the heart of changes which will turn health care into a market where services are bought and sold. Pat Sweet examines the progress so far

Britain's National Health Service is one of the biggest employers in the world, exceeded in staff numbers by only a few organisations including the Red Army. And in the next few years its thousands of consultants, doctors and nurses will need to become as familiar with computers as they now are with stethoscopes and bedpans.

The government is planning the most radical shake up of the NHS since the idea of free health care for all was originally introduced in 1948. It is seeking to overhaul the whole way in which health care is funded and managed: different sectors of the service will be transformed from providers of health care into 'buyers' and 'sellers' of health services.

England has 14 regional health authorities divided into 200 districts which run 2,000 different units. Regions and districts receive fixed budgets at the beginning of each financial year and are charged with arranging care for the local population.

Under government plans, which were first outlined in a White Paper called 'Working for Patients' published in 1989, all that will be swept aside in favour of a competitive marketplace. Districts will become the purchasers of those services they feel they need in order to supply the health requirements of their local population. Hospitals will become the providers of various services, according to their existing specialities and what they feel thay can market.

Furthermore, some hospitals will opt for self-governing status, while GPs can elect to be 'fundholders', running their own budgets and buying their patients services from a variety of sources.

A whole new complex web of relationships will build up between the providers and purchasers and will be held together by a series of contracts specifying performance, quality and cost.

Bill Lattimer, partner in charge of health care practice at Andersen Consulting, says 'IT is the foundation stone on which the whole thing depends and if the IT doesn't work and the information is not flowing, people won't know what is going on and there will be a shambles.'

Looking ahead to just a small slice of the activities the districts will have to address reveals difficulties. From 1 April this year, districts have had to provide a corporate asset register and account for depreciation and charges on all the land, buildings and other assets they hold which are valued at over £1,000. Some 60 authorities have chosen a Works Information Management System (Wims) package from Brighton-based ABS Computers for the task.

David Bristow, UK corporate sales manager with ABS, comments: 'It's a massive data collection exercise. Then there is the question of who owns that data — the estates management department who need it to schedule maintenance, or the finance people who need the figures for capital charging. Authorities are constantly buying and disposing of items, so keeping the register up to date is a big problem.'

Health districts are among some of the country's larger businesses, with turnovers ranging from £50 million to £400 million. Individual hospitals can have budgets of over £50 million a year.

David Crauford, IT partner in the public sector division at Price Waterhouse, maintains, 'The systems they need are as complex as any equivalent systems in banks or airlines.'

The capital charging application is just the tip of the iceberg. In essence, districts and hospitals are looking at introducing three main categories of computer system: resource management systems, hospital ward computers and systems for the new internal market. The first type allows hospitals to cost the treatments they give to patients and to monitor the resources they use, for example operating theatre time, laboratory tests, drugs, nursing care and a host of other factors.

The idea of resource management pre-dates the White Paper. Back in 1983 the Griffiths report on the NHS stressed the need for improved management accounting as a way of controlling costs. In November 1986 the government announced the Resource Management Initiative and the DoH plans to spend a further £250 million on resource management systems in the next five years. The aim is to have a total of 250 live sites by the mid 1990s.

Since the White Paper, resource management has assumed an even greater importance. Hospitals will need to find out precisely what it costs to provide certain treatments in order to get their pricing right. Unlike the present situation, when treating more patients than the year before is likely to produce a budget overspend, now the more treatment is performed, the more they earn, provided their figures are correct.

Ron Coombs is a senior lecturer with the School of Management at the University of Manchester Institute of Science and Technology (Umist) and recently completed research on the IT implications of resource management.

Coombs looked at what was happening in existing RMI pilot sites. He also examined work undertaken in the North West regional health authority which set up its own team to encourage districts to experiment with the concepts. One of his conclusions was that resource management costs more than most people think.

'Obviously the amount you spend depends on whether you want a Rolls Royce or a Mini. But it does seem that the resources committed don't match the requirement. In some cases people were trying to use string and sealing wax to put together systems which were supposed to achieve miraculous things,' Coombs maintains. And all sites had to wrestle with one of the big problems in all health care systems: the fact that doctors and consultants have a long tradition of independent thought and action.

Coombs identified two broad approaches to developing and implementing a resource management system. First there are the systems designed and run by the finance department which gather the necessary data for unit general managers. Such an approach tends to be cheaper and easier to implement, since it involves standard accounting procedures.

A more radical, probably more costly, but an ultimately more beneficial resource management system is one which is 'doctor-led'. Such a system is more difficult to devise, since it is much more difficult to capture and code clinical data. But there are advantages in consulting the doctors.

'In one pilot the doctors were in the driving seat. The system reflected their information needs and the hospital developed databases which doctors could use, to profile treatments and to give information which could be used to support medical audit. It seemed less like a system which was being imposed on them in the interests of better financial controls,' Coombs recalls.

The second category of computer system is concerned with what goes on in the wards and operating theatres of a hospital. Here the doctors' requirements are central to the design. The government has announced funding of around £103 million for 280 hospitals to run Hospital Information Systems (Hiss), and three hospitals in Greenwich, Nottingham and Darlington, have been selected to pioneer the idea.

But several big name suppliers have refused to bid for the pilots on the grounds that the money on offer is nowhere near enough to cover the true costs. Software Sciences, Bull, ICL and Istel are among those who felt a budget of around £2 million was inadequate. Some suppliers estimate the cost of a satisfactory system at anywhere between £5 and £10 million. The supplier community and the NHS regard the Hiss project as having lost its way, comments Andersen's Lattimer.

But Coombs believes that Hiss-style systems are important precisely because they are designed to help clinicians with their daily work. However, a big bang approach where all the sy-

Mike O'Dwyer

the big bang approach to implementing systems. 'If you let different departments develop operational systems then you do inherit big interface problems but you do have systems which work'

tems are unified at the outset is not necessarily the way forward.

Coombs argues: 'There is a lot to be said for the view that if the pathology department wants to develop a system to identify tests and to capture orders from consultants it should go ahead. If you let different departments develop operational systems then you do inherit big interface problems but you do have systems which work, as opposed to starting with the interface and nothing else.'

Clwyd district health authority has chosen to run resource management and Hiss systems together as part of an IT strategy developed by the Welsh Office. McDonnell Douglas is implementing a £7.2 million contract to provide five hospitals with systems covering ward orders, results communication, patient administration and a case database, plus links to local GPs.

Richard Reece, director of McDonnel Douglas health division, comments 'We have got to provide the sort of facilities which match the user's needs. That may mean abandoning keyboards and menu driven systems. A nurse doesn't see the ward as 12 screens linked together — she sees 12 patients in bed. She should be able to point a mouse at the bed on screen and move it onto a trolley and into the operating theatre.'

Training staff, the vast majority of whom have never seen a computer before, is one of the big problems for health care computing. So is collecting the data in the first place. Many hospitals simply do not have the kinds of records that are necessary. It has taken Guy's Hospital in London, over three years just to encode a part of the drugs list used by its pharmacy.

And when it comes to encoding patient details, there is a clear need to define standard methods of showing clinical data. Some of the resource management sites have been experimenting with Diagnosis-Related Groups (DRGs) a concept used in the US to divide treatments into a number of distinct classifications.

But some clinicians prefer the read codes, developed by a doctor, which provide a more versatile method of recording what was in the patient's notes.

Tim Benson, managing director of software house Abies which specialises in clinical systems, comments 'Until a coding system is developed for medical terminology which is unambiguous then there will be grave difficulties in implementing computer systems.'

Once the data has been captured in any medical system, it will probably end up being passed on to another clinician using another system. This raises important questions about security and standards. Benson is project team leader on a European Commission working body charged with looking at how to produce medical data interchange standards.

Nick Beard, a doctor working in the IT health team at Coopers and Lybrand Deloitte, points out: 'Integration is a big issue. Lots of small customised systems have grown up around hospitals which are only linked as an afterthought. But there has to be a way of sharing data which means a common record structure and the same patient details on each system.'

This problem of standardisation must be resolved by the resource management and Hiss initiatives, since the two approaches will have to be put together at some point in the future. It is one reason why many suppliers would like to see standard, and simpler, tendering and specifications from hospitals — although the fact that each site is shaped so much by its clinicians' views of their work makes this unlikely.

Meanwhile, many hospitals and districts have yet to tackle the third category of computer systems, those required for the internal market. By 1 April 1991, systems to handle contracts and cope with invoices and payment must be in place, and there has been little extra funding for this.

'The nightmare scenario is that hospitals don't have the systems to tell them what is going on and so they spend more than they earn, while the purchasing authorities don't know what has been spent in their name so they overspend producing a horrendous cash crisis,' says Lattimer.

Most hospitals and districts are going for a fudge, putting in systems which will help them through the early days using lower quality data and a lower level of detail in the hope of getting it right later.

The fudge approach has become quite common in health systems such as resource management. 'The traditional IT approach to new systems of this type is to get an exact definition from the users and then produce that. What we are seeing is prototyping on a very grand scale,' Crauford claims.

But these 'demonstrators' must evolve into the real thing pretty quickly if the NHS reforms are to work. ■