

HSJ

INTELLIGENCE

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IT CONFIDENTIAL

TOUGHER SANCTIONS TO IMPROVE DATA SECURITY 5-7

ONLINE SERVICES

GPs' broadband service set for summer

NHS Connecting for Health is this summer set to roll out IPstream across the N3 network at 11,000 GP surgeries and community provider units.

N3 programme manager Len Chard told *HSJ Intelligence*: "This will significantly improve the working capabilities of all the GPs across the network."

During six months of trials with GPs in different locations and on all the major GP clinical systems, IPstream had

consistently given GPs 3-4.5 times more usable bandwidth.

Mr Chard said: "This means that GPs will be able to access resources much more quickly. Most of the suppliers offer web-based resources that they need, even during consultations."

It will also increase the speed at which practices can transmit documents.

The organisation is working on the engineering processes for the roll-out. Mr Chard said: "One of the problems with the

N3 installation was multiple engineering visits. We are designing processes now that mean it will be done remotely with minimal disruption."

It will take about a year to roll out to 11,000 practices and other community units such as community hospitals, he added.

The programme is centrally funded under the N3 contract, although primary care trusts pay the running costs, which Mr Chard expects to fall as a result of IPstream.

TELEMEDICINE

NHS North West backs cardiac telecare

NHS North West has given backing to a cardiac telemedicine service after two pilot projects were successful.

Studies by the former Cumbria and Lancashire strategic health authority and Greater Manchester and Cheshire cardiac network have shown the system has potential for reducing accident and emergency attendance by offering a sophisticated ECG service in primary care.

NHS North West says the pilots show significant financial savings as well as improved outcomes for patients.

Both pilots used Broomwell Healthwatch, in which GPs and other healthcare professionals have access to immediate, expert interpretation of ECGs by experienced cardiology-trained clinicians.

Primary care clinicians use

the hand-held 12-lead ECG machine in the same way as a conventional machine. When the ECG is complete, it is transmitted as a sound signal by landline telephone in 45 seconds to Broomwell's monitoring centre, where it is displayed on screen for interpretation by expert clinicians. They then give an immediate verbal interpretation by phone. A full written ECG report is also sent to the GP surgery by email or fax.

The cardiac network evaluated use of the system over 12 months in 38 surgeries across four PCTs, where GPs used it on 3,406 patients. Doctors reported that without the telecare service, they would have referred 58 per cent of these patients to hospital for an ECG.

The six-month pilot in Cumbria and Lancashire

involved 15 GP practices and two NHS walk-in centres.

Data showed 82 per cent of patients receiving ECGs did not need to go to hospital following the test.

The strategic health authority says the system is being used in 150 practices in 10 primary care trusts across the region.

Joe Rafferty, its director of commissioning and performance, said: "The deployment of Broomwell's service across Greater Manchester has proven to be very successful. Using telemedicine to bring essential health services closer to patients in a primary care setting is beneficial to both patients and the NHS, and I think a service such as this has the potential to make a great deal of difference to health services across the UK."

SUPPLEMENT EDITOR'S COMMENT

A question of security

Welcome to the latest issue of *Intelligence*, the quarterly *HSJ* supplement dedicated to innovation, information and technology. In this issue we look at data security. Following the revelation by HM Revenue and Customs that it had lost the confidential details of child benefit claimants, there has been increased scepticism about big government IT projects (page 5). We explore how good policies and procedures are only part of the picture when it comes to information security – a change in culture is also needed to ensure that people know how and why they should be followed.

In her regular column, Lyn Whitfield looks at the recently revived push towards ID cards (page 2). With the suggestion that this will help cut illegal immigration, the NHS is faced with the possibility of becoming part of the "border police", both as an employer and healthcare provider.

Elsewhere, we look at a new model to predict the risk of cardiovascular disease and its impact on the health inequalities agenda (page 8).

If you have any ideas for *Intelligence*, please email rebecca.allmark@emap.com.

The next issue will be on 26 June.
Rebecca Allmark



CONTENTS

Card carrying 2

Lyn Whitfield on ID cards and the NHS

National IT programme 3

How far has it been a success?

Safety first 5

The NHS is changing its culture in order to avoid another data protection crisis

Tool for change 8

New cardiovascular risk assessment tool

Cancer statistics 11

Now more accessible to the public...

Changing face of PCTs 12

Alan Maynard asks if it is just change for change's sake for primary care trusts

LYN WHITFIELD ON CARD GAMES



When you're in a hole, stop digging. It's a well-known maxim, but one the government seems completely incapable of applying to ID cards.

Home secretary Jacqui Smith had the spade out again last month, when she relaunched the much-criticised scheme for the umpteenth time. The BBC loyally reported the government's line that it had made concessions. Notably, it suggested that cards will not be compulsory and that people will be able to "opt" for biometric passports or driving licences instead.

However, these were identified as ID vehicles in the very first green paper on what the government was then trying to call "entitlement" cards (indeed, it suggested that only people who did not travel or drive would need another piece of plastic).

This not only makes sense but has to be the case if you bear in mind that it makes no difference what kind of card you carry as long as it shows that your personal details and biometric information have been entered on to the "national identity register" underpinning the scheme.

Despite this, Ms Smith did have some new information on how the cards will be rolled out. As previously announced, "non-European Economic Area nationals subject to immigration control" will be the first to have to carry a card.

Ministers have often suggested that this will help to cut illegal immigration, by restricting access to

work. The standard response is that illegal immigrants will come to the UK whether they have an ID card or not, and that employers who do not ask for a work visa or NI number are unlikely to ask for one. On the other hand, reputable employers, including NHS trusts, will have another hurdle to jump.

Immigration minister Liam Byrne has also suggested that non-EEA foreign nationals will need ID cards to claim benefits. Will this mean benefits such as NHS treatment? If so, the difficulties will be legion.

Doctors' organisations have said their members do not want to become "state agents", checking immigration status and benefit entitlement. Even if they did, it is far from clear how they would decide who to check – after all, the difference between a non-EEA national subject and an EEA or UK citizen may not be obvious to immigration control at first glance.

This particular issue might be resolved by forcing everyone to carry ID cards and to present them to access public services. This may well be the government's intention.

But even then, what would a doctor in accident and emergency do, for example, if faced with a non-card-carrying person in need of emergency surgery? Let them die? Treat them but call in the cops?

Meantime, the government has found a whole new category of people to help to get the scheme off

“What would a doctor in A&E do if faced with a non-card-carrying person? Let them die?”

the ground: workers in sensitive areas. Initially, that will mean people working in airports and on London's Olympic site. But Ms Smith hinted that it might also mean people who work with children and in healthcare.

This is supposed to reassure the public – although airline unions are saying ID cards will do nothing to improve airport security and the government has offered no evidence that there is a problem to solve. As far as the NHS goes, the biggest scandals to hit in recent years have related to people who are not only well known but well respected.

At the same time, the government is claiming that its latest move will help staff, because they will be able to get through criminal record and other checks faster. However, it has not explained why the present system couldn't be better resourced or made more efficient.

Nor has it tackled a host of other issues, such as how the national identity register will actually synch with other databases, or just how many cards people will have to carry to, say, work in a public building and use its IT systems.

The campaign group No2ID points out that the government's latest relaunch of ID cards meets none of the criteria that its own advisers have set out for it. Most obviously, it still lacks a clear purpose. Yet public services are being pulled in. We will have to wait to see the outcome. ●

VIRTUAL COMMISSIONING

With the recent launch of the Department of Health's world class commissioning agenda, there is increased pressure on primary care trusts to manage their budgets effectively while improving public health and patient satisfaction.

However, many PCT staff have not had specific training in commissioning, and sometimes little experience of the dynamics of the local healthcare economy.

Seeing this gap in skills, Humana and Sweden-based BTS came together to develop a simulation exercise that

engages PCT staff and boosts confidence in making long-term commissioning decisions.

Under the umbrella of the Commissioning Institute, the Commissioning Simulator was born – an interactive computer programme designed to enable people who work in a local healthcare economy to practise taking important commissioning decisions in unfamiliar situations and to take risks.

The simulator replicates the variables of commissioning in a virtual environment and maps the implications and outcomes of decisions across

a set time, based on the population demographics of a realistic PCT area.

The simulation effectively illustrates how multiple strategic decisions by competing stakeholders in a healthcare economy create changes in patient outcomes and experience and financial position. It helps participants to broaden their understanding of how different stakeholders may be thinking and to take a "system view" when considering their own decisions.

At the first commissioning simulator workshop at

Gloucestershire PCT, four teams of seven people worked for two days on a series of scenarios and predictive modelling tasks replicating the construction of a commissioning strategy over a three-year business cycle.

Participants found the experience challenging but very positive. They felt that the structure of the programme allowed them to think through and discuss complex decisions with their colleagues, and gave them an overview of the implications of short-term decisions on the whole commissioning cycle.

Reflecting the development and aims of the simulator, its director David Goldberg said: "The Commissioning Simulator enables stakeholders in a local health economy to collectively address how to improve the health of their population. The learning and relationship building transcend the simulation session and affect how commissioning is conducted."

The simulator was launched in March and will be implemented across the UK in the coming months.

FRANK BURNS ON PROGRESS



“
Claims are made that lives have been saved, which is not borne out in the report
”

The very latest view of progress with the national IT strategy is contained in the recently published document, *Supporting Transformation* – the first of what promises to be an annual statement of programme benefits.

Naturally enough, this report accentuates the positive and a quick superficial read will give the intended impression of real progress across a wide swathe of the programme.

Ultimately, the only serious test of the benefits so far of the £3.5bn invested to March 2007 is the degree to which an “informed patient” will judge that their care has improved.

Much of the expenditure to date has of course been committed to essential infrastructure and the informed patient will recognise that the benefits of this spend will not be visible at the point of care.

Nonetheless, the programme has invested considerable time, effort and expenditure on initiatives for which real and observable benefits have been claimed, and it is on these programmes that the “fair” judgement of the informed patient should be focused.

In making their own judgement, patients will be influenced by the importance to them of the projects to which priority has been given and the degree to which actual progress is faithfully and accurately reported.

Against these criteria there can be no doubt that patients will appreciate the priority and service benefits associated with picture archiving

and communication system investment. However, in relation to choose and book, electronic transfer of prescriptions and electronic transfer of GP records, they may be less enthusiastic.

This is not because these things do not provide benefits in their own right for some patients, but because they may provide less urgent and less important benefits to patients as a whole than, say, the summary care record, where there is the potential for wholesale improvement in the clinical care and safety of all patients.

This priority, as perceived by patients, is well reflected in quotes from them in *Supporting Transformation* about the usefulness of shared electronic records, which may give the impression that these benefits are in place or very close.

Regrettably, this is not the case and the informed patient may well be disappointed that a key priority for them is not a key priority of the programme, if judged by the rate of progress. The missing link for shared electronic records across the NHS is sophisticated clinical systems in hospitals, and by even the most optimistic analysis, these are still many years from being a reality.

As usual, the statements of senior executives and ministers in the press release accompanying the document are full of hyperbole, which in no way reflects the substance of the report. Claims are made that “lives are saved”, which is not borne out in

the report, and while it is fair to claim credit for considerable progress in some areas, the implication in these statements that the national IT programme has already had a dramatic impact on the quality of clinical care would not find much of an echo across the NHS.

In a recent speech to the World Health Congress, the chief executive of the NHS is reported as claiming that 400 lives have been saved by the investment in the IT programme. This is put in perspective by the fact that, according to the National Patient Safety Agency, over 1,000 NHS patients a year are killed through errors and mistakes in England and Wales and many of these will be attributable to clinical documentation in some way.

In the appendix of *Supporting Transformation*, credit is again claimed for the fact that the national programme for IT pays only for systems delivered and that “suppliers have borne the cost” of the acknowledged delays in delivering clinical systems to hospitals. Given the potential of shared electronic records to “save lives”, it is reasonable to adduce that it is patients rather than suppliers who are paying the real price for the lack of priority and progress in this area. ●
Frank Burns is a former NHS chief executive and was the author of the 1998 strategy Information for Health. He is currently working as an independent healthcare consultant.

NEWS IN BRIEF

Cracking the code

NHS Connecting for Health has completed the national procurement of an encryption solution for removable media and full disk encryption on behalf of the NHS. The selected product, SafeBoot by McAfee, is provided by Trustmarque Solutions. The process for obtaining software and licences has now been agreed and the solution is available to the NHS. It is being deployed by trusts and health informatics services groups to machines throughout their estates.

New leads for IT

NHS Connecting for Health has announced the appointment of eight national clinical leads who will build on the work being done to involve their colleagues in the national IT programme. The eight are: Nigel Beasley and Dr Robert Pitcher, for hospital doctors; Dr Adrian Scott, for diabetes; Dr Gifford Batstone, for pathology; Sharon Hart, for medication management; Dr Joe McDonald, for mental health; John Sparrow, for ophthalmology; and Parul Desai, for public health.

Personalised treatment

Under free choice, any patient receiving routine elective treatment will now be able to choose from any NHS-approved hospital provider in England. Junior health minister Ben Bradshaw said: “Choice is fundamental to the delivery of a personalised NHS. People would like to have more control and be more involved in the decisions about their illness and treatment.” As part of the broader initiative to increase choice, trusts and organisations providing healthcare funded by the NHS

will be able to promote their services for the first time.

iSOFT in context

Software provider iSOFT has signed an agreement with US-based Sentillion to become its first healthcare channel partner in Europe for its single sign-on (SSO), context management and user provisioning solutions. The move coincides with the launch of Sentillion's UK Channel Partner Program and enables iSOFT to become the first partner for the Vergence SSO/context management suite and

Sentillion's next generation SSO solution expreSSO, which have all been developed for healthcare. Paul Richards, managing director of iSOFT UK and Ireland said: “Our partnership with Sentillion via its Channel Partner Program allows our customers to benefit from the industry's most comprehensive set of solutions for single sign-on and context management. These manage single sign-on across multiple applications and allow users to easily switch between applications while retaining patient context.”

SECURITY

The HMRC data breach cast a shadow over government IT projects. To restore confidence, the NHS needs a culture change that makes it unthinkable for staff to cut corners on security, says Lyn Whitfield

SAFETY FIRST

The nation's headline writers did not hold back when HM Revenue and Customs was forced to admit that it had lost the confidential details of every child benefit claimant in the country. Words like "shocking" and "fiasco" featured above the first stories about how the information had vanished after a "junior official" put it onto two unencrypted disks for delivery to the National Audit Office – which never received them.

The furore was justified. The HMRC incident, lost laptops and other data breaches from the Ministry of Defence and other public bodies, have already had far-reaching consequences.

The government was almost immediately forced to promise new powers for information commissioner Richard Thomas, including the right to conduct unannounced "spot checks" on private and public bodies.

And new legislation is likely to follow. In January, the Commons justice select committee called for new laws to force companies and public bodies to disclose data losses and to make both of them criminally responsible for breaches of the Data Protection Act.

Meanwhile, the Criminal Justice and Immigration Bill will provide tougher legal penalties for individuals who knowingly or recklessly breach the data protection law.

Tougher penalties were first proposed last summer, when the information commissioner's *What Price Privacy?* report showed that journalists, private detectives and others routinely trick or pay staff in public services for information about users.

But in evidence to a Lords inquiry, assistant information

commissioner David Smith said they might be used more widely. "Say a doctor leaves a laptop containing patients' records in his car," he said. "It's hard to say that's anything but gross negligence."

Tougher sanctions against individuals who breach the act have been backed by the Department of Health as a way of promoting confidence in the systems being delivered by the national programme for IT in the NHS.

However, another effect of the HMRC incident has been to increase scepticism about big government IT projects. The government has announced that it will push ahead with the controversial children's database, ContactPoint, and with ID cards – but it has been forced to review the first and relaunch the second.

Meanwhile, the Conservative Party has called for the NHS care records service to be scrapped in favour of "storage on local servers with interoperability between them", to reduce the risk of "catastrophic data loss".

Predictably, NHS Connecting for Health has rejected these demands. "The IT systems implemented as part of the national programme for IT have the highest standards of security control," it said in a statement.

"Access to specific clinical information is controlled by [a] smartcard and requires a legitimate relationship with the patient. Audit ➔7



'Any system must be proof against criminals, idiots and those who do not follow the ordinary rules'

5 ← trails will reveal who has accessed a record and NHS management is alerted to any inappropriate access.”

While this is true, campaigners have queried how robust the arrangements are in practice. It recently emerged that healthcare assistants have been printing off summary care records in the Royal Bolton Hospital’s accident and emergency department, despite the supposedly tight, role-based controls on who can see them.

The HMRC incident has had other impacts on the NHS. The DH was already undertaking a review of informatics, which is due to report this spring.

But at the start of December, NHS chief executive David Nicholson wrote to chief executives to remind them that they are now responsible for “securing effective information governance” in their own organisations.

His letter noted that trusts had to complete this year’s annual information governance self-assessment, using the NHS information governance toolkit, by the end of March. And it drew particular attention to the security of data in transit.

Mr Nicholson said he expected boards to assure themselves that their arrangements met all existing DH guidelines and “that there are robust procedures to make sure they are followed”. Recognising that this might take some time, he urged the NHS to stop bulk transfers of person-identifiable data until it was done.

He also urged chief executives to check their security policies for laptops and other “portable media” and to make sure they do not hold person-identifiable data unless it is encrypted.

Unsurprisingly, most analysts are predicting a big increase in the use of encryption technologies in both business and the public sector, as well as increased take-up of Microsoft’s Vista operating system, with Bitlocker drive encryption.

However, the mantra of security experts everywhere is that the best information security comes from a combination of good policies and procedures, good behaviour and good technology. And there is considerable concern that in the wake of the HMRC scandal, there will be a tendency to focus on just the first or the third of these.

Back in November, prime minister Gordon Brown asked the Cabinet Office to “ensure all departments and all agencies check their procedures for the storage and use of data”.

An interim report issued in December shows that the DH is far from being the only government department to have sent out reminders to its operational agencies about the need for good information governance procedures as a result.

However, HMRC had policies to prevent data leakage – it just didn’t follow them (partly because its databases had been constructed in



‘We need a change of culture, to bring processes alive by engaging people about why they are important’

such a way that it would have cost money to strip out the information that the national audit office actually requested).

At the other end of the scale, research and consultancy firm Forrester has found that European IT managers have tended to put information governance behind other priorities, including reducing costs.

Analyst Thomas Raschke says there is also a tendency for companies and public bodies to “mainly respond to and react to new threats, instead of proactively plugging holes and enforcing data policies”. He predicts there will now be more interest in a wide range of “data leak prevention” technologies – ranging from network and wireless security to identity and access management, and from audit to “post-leak” solutions, such as remote-kill. But he also points out that these “don’t fix inherently broken policies and processes”.

David Lacey, a member of the British Computer Society’s recently formed security forum, says new thinking is needed to bridge this gap between policies and technological fixes.

“One of the problems we are facing is that the world has changed,” he says. “We now live in a much more networked world – one in which people expect to do ‘home’ things at work and ‘work’ things from home. So the days when managers could lay down a set of rules about what could be done on ‘the’ computer system are gone.

“What we really need is a change of culture – one that brings policies and processes alive by engaging people about why they are important, and which uses technology to reinforce that.

“There is no point putting all your policies in an archive somewhere and expecting people to find them. You need to use things like social networks, so people can ask questions about what they are doing, and to build prompts into applications that encourage them to do the right thing.”

This, of course, requires sophisticated thinking about the context in which people are working and the risk that their actions present, as well as investment in technology. But the change of mindset is undoubtedly necessary.

Instead of simply supporting organisations, IT is increasingly being used to deliver policy objectives and to change the way services are delivered. This makes it more important for policy makers and managers to consider IT early and to build staff and public support for change – not least by instilling confidence that data will be held securely and used only for authorised purposes.

The HMRC data loss and similar, if smaller, incidents have dented that confidence. So far, government departments have responded by reminding their agencies about the importance of having good information security policies.

However, both security experts and privacy campaigners would like policy makers to go further – by recognising that privacy, as well as information sharing, has a value to service users, by taking steps to minimise the amount of information that is collected about them, and to be clearer about the uses that will be made of it.

Meanwhile, in reacting to the HMRC incident, Richard Thomas said it was no longer good enough for public bodies to blame breaches on “junior officials” or a failure to follow policies.

“Any aggregated system of collecting information must be proof against criminals, it must be proof against idiots, it must be proof against those who do not follow the ordinary rules,” he said. And he emphasised that the stakes are high, by adding that: “Anything less could inflict serious damage on institutions and, potentially, the e-government project.” ●

DECISION MAKING

A new risk assessment tool for cardiovascular disease is proving more accurate than its predecessors for informing management decisions and ensuring treatments are directed at those most likely to benefit, writes Daloni Carlisle

RISK AND REWARD

Framingham is a town in Massachusetts, not far from Boston. It is predominantly white and middle class. It provided a refuge for families persecuted in the Salem witch trials and it is where the *Battle Hymn of the Republic* was first sung.

So what has it got to do with how much English primary care trusts spend on statins?

The answer is simple: the Framingham heart study. Between 1968 and 1975, doctors gathered data on heart disease in 5,573 people in Framingham and developed a formula to calculate an individual's risk of having a heart attack. It was universally accepted and became the gold standard.

That is, until now. The National Institute for Health and Clinical Excellence has recommended it be replaced with QRISK. It is a decision that will have a profound impact for primary care trusts – both for the bottom line and for the health inequalities agenda.

Questions about the Framingham risk score began to emerge around 2002 when Peter Brindle, a GP in inner-city Bristol and at that time a Wellcome Trust fellow, questioned whether it was valid for his multi-ethnic, deprived population.

First he challenged it by comparing it with the British equivalent, the British regional heart study, and found that the Framingham score overestimated the risk of non-fatal coronary events by 57 per cent. More worryingly, he also found that 84 per cent of British deaths from heart disease were in the 93 per cent of men classified as low risk by Framingham. “Basically, it did not work that well, depending on where you were using it,” he says. While it included risk factors such as age, gender, smoking, blood pressure and total cholesterol, it had no measures of deprivation or ethnicity.

Dr Brindle, who is also research and development lead for Bristol, South Gloucester and North Somerset PCTs, adds: “My ambition since then has been to find an alternative.”

That alternative is QRISK. It was developed with a team of researchers from Nottingham University, Bristol PCT and the universities of Queen Mary and Bristol.

They used data from QRESEARCH, a general practice database set up by clinical system provider EMIS and Nottingham University. It is the largest database of its kind in the world, with every EMIS practice pumping anonymised patient data in on a daily basis.

Instead of tracking 5,500 patients in one town, they tracked the progress of 1.28 million healthy men and women aged 35-74, registered at 318 general practices over a period of 12 years to April 2007. They recorded the first diagnosis of cardiovascular disease and looked at the relationship between this diagnosis and various known risk factors for CVD.

The result is a complicated algorithm to predict who is at risk of the disease. In addition to the risk factors used by Framingham, they were able to factor in family history, body mass index, a measure for deprivation and current anti-hypertensive prescription.

Accuracy levels

Applying the algorithm to the original data, they were able to look at how accurate it was – and compare it with Framingham and another risk score developed in Scotland called ASSIGN.

Not only was QRISK more accurate, but it predicted fewer people overall would be at risk of CVD. In patients aged 35-74, QRISK over-predicted risk at 10 years by 0.4 per cent. Framingham over-predicted by 35 per cent and ASSIGN by 36 per cent. QRISK predicted 9 per cent of patients aged 35-74 to be at high risk of CVD, compared to 13 per cent for Framingham and 14 per cent for ASSIGN.

There was more. Because QRISK built in several additional risk factors, it identified a different

group of patients on the basis of age, sex and social deprivation. Broadly speaking, it identifies more women and more people in deprived areas as being at risk.

Writing in the *BMJ* in July 2007, the authors concluded: “It is therefore likely to be a more equitable tool to inform management decisions and help ensure treatments are directed towards those most likely to benefit.”

QRISK is online now and easy to use, requiring patients and/or their doctors to click through a series of questions before coming up with a risk score – and an explanation of what that risk means.

“It's not perfect,” says Dr Brindle. “But it is fairer. We are now looking at a second generation QRISK that builds in the ethnicity data we have on tens of thousands of patients.”

That is the academic side of things. Using a new tool such as QRISK requires research papers but also approval, acceptance and a political context. All three are coming together in 2008.

QRISK came along just as NICE was working on new guidelines on CVD risk assessment, lipid modification and primary and secondary prevention. In October 2007, the institute delayed them to take QRISK into account.

By February it had accepted that QRISK was indeed preferable to Framingham, a decision that has proved controversial, as Dr Brindle and another QRISK developer, Dr John Robson, were in the guideline development group and not everyone – doctors from the cholesterol charity Heart UK included – is convinced it works.

The institute has defended the GPs, saying they left the room during discussions about the choice of risk assessment tool and pointing out that the other panel members were in unanimous agreement to adopt it. It is widely thought QRISK will replace Framingham when the guidelines are published in May 2008.

Next the political. This January, prime minister



'If adopted nationally, we estimate that QRISK has the potential to save more than 200,000 lives over the next 10 years'

Gordon Brown made a surprise announcement. The NHS was to venture into primary prevention of CVD. He promised vascular screening, to be introduced this year or early 2009, to include a series of blood, fat and sugar tests in GP surgeries, alongside questions on age, gender, postcode, family history, height and weight.

Primary prevention

It is a tick list that looks very much like the variables in QRISK, and David Stables, clinical director of EMIS, looks at the numbers through this primary prevention prism. "If it is adopted nationally and used correctly, we estimate that QRISK has the potential to save more than 200,000 lives over the next 10 years."

Dr Brindle believes that primary prevention is on its way. "There is such a big groundswell of opinion that this is the right thing to do, it will happen," he says.

Nevertheless, he is deeply ambivalent about this. If primary prevention of CVD becomes

the norm and QRISK the risk assessment tool by which doctors identify who is at risk, several things result.

Certainly it will help PCTs get a handle on tackling deprivation, he says. "But from a managerial point of view, those practices in the deprived areas will have a lot more work and I am not sure if anyone has fully worked through the implications."

While QRISK will potentially reduce the number of men in affluent areas identified as at risk and therefore prescribed statins and/or exercise, it will bump up the number of women and people in deprived areas.

"We are talking about potentially another five million people on preventive drugs, needing blood tests and counselling, follow-up and to have drugs prescribed. I am not sure we know what the true costs are." The vascular board (a group at the Department of Health) is working on this now.

Willingness to share

QRISK is just one output of QRESEARCH – albeit one that has set a number of hares running. "This is just an example of what QRESEARCH is doing," says Dr Stables. "It has the potential for a significant change in the way outcomes and interventions are measured."

Already, the Health Protection Agency uses a service called QSURVEILLANCE, using anonymised data from 4,500 practices to track flu epidemics and vaccine use, as well as health status in disaster zones, such as after the Buncefield fuel depot fire in 2005.

Then there are the questions that the data could answer. Up to now, he says, clinical trials have been painstaking processes, based on a few hundred or a few thousand patients, but QRESEARCH can access literally millions of pieces of high quality information from electronic patient records.

In theory, you could ask this programme any question about the primary care data. Is there a link between MMR and diagnosis of autism, for example. I am a diabetic, should I be on HRT?

It could be used to flag up anomalous patterns, for example, between prescription of a drug and unexpected side effects or a cluster of ill health.

Right now, because of the way data is coded and searched, QRESEARCH takes three or four months to answer these questions. Dr Stables' vision is for the process to be done in minutes.

"This was my vision when I set up EMIS20 some years ago," says Dr Stables. "I thought it would take five years but we are not there yet. I have now revised it to a 30-year project."

It is made possible by the willingness of GPs to share their data and by a system in which family doctors have cradle-to-grave responsibility for the primary care needs of their patients. The really big question is whether this system will survive long enough for Dr Stables' vision to reach fruition. ●

➔ www.qrisk.org

UNCHARTED TERRITORY

The recently published *Cancer Reform Strategy*, which sets the direction of cancer care for the next five years, has emphasised the importance of accurate and timely statistics to plan and evaluate cancer care and prevention.

Public health observatories act as regional hubs of health intelligence and cancer registries have for many years been a source of high-quality information on incidence, mortality and survival in cancer. Now a collaboration between cancer registries and public health observatories has led to the creation of a publicly accessible interactive web-based tool, the Cancer E-Atlas.

This aims to promote awareness of, and access to, basic statistics about the main cancer sites affecting men and women. This is the first time these cancer statistics have been published in such an accessible form for the public and patients, as well as for commissioners, providers, and non-executives across the NHS.

The project involved three regional public health observatories – Yorkshire and Humber, North East and East

Midlands – and two cancer registries, Northern and Yorkshire cancer registry and information service, and Trent cancer registry. Data at local authority level from both registries has been used to create the Cancer E-Atlas.

The data has been extracted from the national Cancer Information Service, which is a more detailed analytical tool, accessible via NHSnet to NHS users who register.

Instant Atlas software then provides the platform to view the data in an intuitive user environment. Individual local authority areas can be highlighted for the common cancer sites (both in incidence and mortality) and then compared with regional, cancer network and other local authority areas. Trends in cancer rates can also be seen over the past 10 years. Data can be filtered, for example, if the viewer wants only to look at and compare “spearhead” local authority areas (those at the bottom of the leagues for mortality and poverty).

The data on the screen below takes the example of prostate cancer and shows how even neighbouring local authority

For the first time, cancer statistics have been put on the web in an accessible form for patients and the public. Colin Pollock on the Cancer E-Atlas

areas can have markedly different trends in diagnosis rates – in this case likely to be as a result of differing policies on the promotion of prostate-specific antigen testing in health communities.

For the more adventurous, there is a “double map” option that allows users to look at the association between two different cancer sites, differences between men and women, or how mortality changes with increases in incidence.

‘The data shows how neighbouring areas can have markedly different trends in diagnosis rates’

For instance, you might compare incidence rates against mortality rates in prostate cancer and discover that high incidence rates do not always lead to high mortality rates. The end results can be printed or exported into reports as needed.

Plans are in place to develop this tool to cover all local authorities in England and also to develop a companion version with data presented at cancer network level including survival statistics.

This national version will be ready by June 2008 to coincide with the launch of the new National Cancer Intelligence Network. The network is a key part of the *Cancer Reform Strategy*’s drive to improve cancer intelligence across the country and is being developed jointly by the National Cancer Research Institute and the Department of Health.

The network aims to bring together patient-level datasets and the expertise needed to provide high-quality national cancer intelligence. For the first time, data from cancer registries across the country will be brought together with other NHS data about cancer patients, to form a single national dataset, providing tools to improve cancer services, increase patient choice and provide a valuable research resource.

The national roll-out of the Cancer E-Atlas has been funded by the network and is one example of the kind of cancer intelligence tools that can be developed to support world class commissioning across the NHS in cancer care and prevention. Dr Colin Pollock is medical director at the Yorkshire and Humber public health observatory and medical director for the Northern and Yorkshire Cancer Registry and Information Service.

➔ www.yhpho.org.uk/cancere-atlas.aspx



National asset: the E-Atlas will eventually cover the whole of England.

ALAN MAYNARD ON THE CHANGING FACE OF PCTS



The Thatcher government introduced the purchaser-provider divide in 1991. Ever since, governments have been rebranding and “redisorganising” the structures of what are now primary care trusts. However, these reforms of structure have had little impact on process and outcome. PCTs are viewed as feeble organisations that facilitate the continuing inefficiency in provider performance. Consequently, the Department of Health wants to invest in world class commissioning and transform PCTs into robust agents of change.

This ambitious concept requires PCTs to manage activity and clinical costs with real-time data, increasingly supplemented by patient-reported outcome measures.

It requires them to hire in specialist analysts, particularly the data analytic skills of statisticians and economists. Only with these capabilities and sharp incentives to alter inefficient behaviour will PCTs be able to hold providers to account and mitigate the manifest inefficiencies of the NHS, exemplified by data showing the delivery of different bundles of care to patients with similar needs.

This policy will be costly in terms of developing data, its analysis and incentivising change in the NHS. They are all welcome, but do we need PCTs to implement this change? Providers create most of the data that will be used by PCTs to manage performance. They too will need to invest in the analysis of activity and service delivery cost data. They will be obliged to

develop patient-reported measures, particularly if PCTs threaten to withhold or reduce payments for poor outcome performance. Are PCTs needed or are they merely duplicating the efforts of providers?

Scotland and New Zealand abandoned the purchaser-provider split some years ago, but their system performance is hardly exemplary. However, health maintenance organisations such as Kaiser Permanente in California appear to achieve good results without the “benefit” of the purchaser-provider split.

The health maintenance organisation model and its focus on integrated service delivery also brings into sharp relief the UK division between primary and secondary care. The government’s policy of rebranding GP fund-holding in England as practice-based commissioning has given indicative budgets to primary care providers. However, this gives few incentives to economise and create cost-effective pathways for patients who need integrated packages of primary and secondary care.

Perhaps it would be better to allow practice-based commissioners to merge with local hospitals and create health maintenance-style provider capacity. Or can local collaboration between GPs and hospitals generate integrated care and, if so, why do we need PCTs?

Could world class commissioning allow experimentation with these alternative institutional

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arrangements without going for another system change? This requires increased regulatory rigour.

The remarkable similarities between the policy focus of today and 1976 is epitomised by the 30-year-old document *Priorities for Health and Personal Social Services*. This lamented the variations in clinical practice, such as the failure to develop day care.

Data similar to this is being reiterated by government, and is common across all health systems. Better activity, cost and outcome data will make variations in clinical practice more transparent, but how can this knowledge be used to induce change and translate 30-year-old evidence into improved patient care?

We do not know the answer to this. Putting your money on one horse, “world class commissioning”, is risky. Why not let “a thousand flowers bloom”, thereby creating different routes to common regulatory goals? This would create a nice research environment that facilitates learning from institutional change.

Improving patient care requires improved data, its analysis and implementation. The determinants of success are clear: simple policy goals and robust incentives to encourage radical change. It is worth considering experimentation with an approach involving integrated health maintenance organisation-style structures and the demise of some PCTs. ●

Professor Alan Maynard is director of the health policy group at York University.

SMART INFORMATION

Until recently the accident and emergency department at Charing Cross Hospital encountered a number of problems when recording patient data. Nurses were inputting and displaying patient information in two separate places: on a pen and ink manual whiteboard that was regularly updated throughout the course of a shift, and digitally via a central PC.

At the time, the A&E department had purchased a software package called

Symphony from Ascribe to provide a structured display of the location and status of current patients. Information was being entered into Symphony via a PC, but the manual pen and ink whiteboard was still being used as the main administrative tool. Information was being fed into both, and records contained conflicting information.

Henry Dowlen, a doctor working in the department, identified the possibility of using interactive whiteboards

to combat these problems and to combine both methods into one. Following the decision to trial an interactive whiteboard, Dr Dowlen contacted Steljes, the UK representative for SMART Technologies. Steljes then worked with its trade partner, Leapfrog, to conduct a pilot project in January 2007, consisting of one board being installed in the A&E department.

The trial was meant to be one month long, but was extended to two months after a larger SMART board was deemed more

appropriate for the amount of information that needed to be viewed simultaneously. A larger board allowed an electronic notepad to be shown with Symphony, to record more specific information or extended patient data.

Centralising all records created a time saving of up to 20 minutes per patient in busy shifts. The charge nurses were impressed with the more legible and movable information; the fact that more time was created to spend on clinical

instead of administrative duties; and that the board has been particularly useful for the regular handover meetings held within the A&E department.

As part of the survey with staff following the pilot, one of the nurses commented: “I find I have much more time to carry out clinical duties than I did before we started. It’s improved communications between people in the department, as messages are clearly read, instead of just being left unnoticed.”