A STITCH IN TIME • UPDATE 1

time

marches on

facing the challenge of the

year 2000 date change
The Audit Commission promotes the best use of public money by ensuring the proper stewardship of public finances and by helping those responsible for public services to achieve economy, efficiency and effectiveness.

The Commission was established in 1983 to appoint and regulate the external auditors of local authorities in England and Wales. In 1990 its role was extended to include the NHS. Today its remit covers more than 13,000 bodies which between them spend nearly £100 billion of public money annually. The Commission operates independently and derives most of its income from the fees charged to audited bodies.

Auditors are appointed from District Audit and private accountancy firms to monitor public expenditure. Auditors were first appointed in the 1840s to inspect the accounts of authorities administering the Poor Law. Audits ensured that safeguards were in place against fraud and corruption and that local rates were being used for the purposes intended. These founding principles remain as relevant today as they were 150 years ago.

Public funds need to be used wisely as well as in accordance with the law, so today's auditors have to assess expenditure not just for probity and regularity, but also for value for money. The Commission's value-for-money studies examine public services objectively, often from the users' perspective. Its findings and recommendations are communicated through a wide range of publications and events.

For more information on the work of the Commission, please contact: Andrew Foster, Controller, The Audit Commission, 1 Vincent Square, London SW1P 2PN, Tel: 0171 828 1212 Website: www.audit-commission.gov.uk
Summary

The Audit Commission’s management paper, *A Stitch in Time*, published in June 1998, reported on the action being taken by local government, the NHS and the emergency services to tackle the risks associated with the year 2000. It concluded that...

- preparations in these three sectors were behind schedule
- the date problems in medical and other equipment were proving more difficult to deal with than computer systems
- few organisations had established a realistic year 2000 budget
- more co-ordination and co-operation was required

...and this update provides a picture of progress made in the past six months.

The Commission’s auditors have continued to monitor preparations and there have been some improvements...

- both authorities and trusts have made significant progress since the last report
- the NHS has made the greatest progress over the last six months

...but some problems remain...

- district councils in general are falling further behind
- obtaining information from suppliers about the ability of their equipment to handle the century date change is proving difficult and is hampering progress
- there is wide variation between the action taken by individual authorities and trusts

...and so there is scope for many to learn from and match the standards of the best.

In spite of the good progress, authorities and trusts still have much to do if they are to be ready. They should...

- review their progress using the self-assessment questionnaire provided in *A Stitch in Time*
- discuss performance with their auditors, who are able to provide comparative and best practice information
- identify those areas where action is still required

...and be actively engaged in preparing contingency plans and ensuring that relevant key players are involved in the planning process.
Contents

1 Background 5

2 Progress 6
   Overall performance 6
   Detailed performance 10

3 Risk management and contingency planning 13
   Introduction 13
   Risk management processes 14
       Identifying the risks 14
       Prioritisation 14
       Risk reduction 17
       Monitoring and review 17
   Developing contingency plans 17
   Involving others 19

4 The next steps 23

© Audit Commission 1998

First published in November 1998 by the Audit Commission for Local Authorities and the National Health Service in England and Wales, 1 Vincent Square, London SW1P 2PN.

Typeset by Ministry of Design, Bath.

Printed in the UK for the Audit Commission by Kent Litho.

ISBN 1 86240 1284

Illustrations by Patrick MacAllister
1. **Background**

1. Concern over the impact of the year 2000 on public services is coming to a head at a time when local government and the NHS are facing some of their greatest challenges – for example, the introduction of best value in local government and the establishment of primary care groups in England and local health groups in Wales within the NHS. Balancing work on the year 2000 with other priorities is requiring considerable skill and effort.

2. The Audit Commission’s management paper, *A Stitch in Time*, published in June 1998, provided a unique insight into the preparations being taken by local government, the NHS and the emergency services (referred to as authorities and trusts throughout this update) to reduce the risk of disruption to public services resulting from the millennium bug. The key messages were:

   - services may be at risk because year 2000 projects were, generally, behind schedule;
   - progress in resolving problems associated with embedded systems was slower than for computer hardware and software;
   - the cost of remedial work will be high and is increasing;
   - the skilled staff needed to tackle the problem are in high demand and short supply;
   - most organisations did not have a realistic budget for their year 2000 projects;
   - the preparation of contingency plans should become a priority;
   - there was scope to improve the co-ordination of effort and co-operation between authorities and trusts, including dissemination of ideas, good practice and compliance status information; and
   - building and maintaining public confidence would be a crucial part of protecting the systems of authorities and trusts.

3. The paper concluded that the problems facing authorities and trusts were not insurmountable and could still be resolved in time if immediate action was taken.

4. Since the publication of the management paper, the Commission has been working closely with government, relevant agencies and associations, as well as with groups of authorities and trusts, to improve co-operation between organisations and co-ordination of effort.

5. The Commission’s auditors have continued to work with authorities and trusts to assess their performance against a series of best practice benchmarks. The key messages and practical guidance contained in *A Stitch in Time* remain relevant. This update provides:

   - a picture of the progress made since our last report, drawn from the results of individual reviews agreed with the authorities and trusts concerned;
   - an overall assessment of the current position of year 2000 projects compared with best practice; and
   - practical guidance on risk management and contingency planning – a vital activity that all authorities and trusts should be addressing now.
2. Progress

Overall performance

6. The Commission’s appointed auditors have been engaged in reviewing year 2000 preparations by all authorities and trusts since January 1997. This update is based upon work undertaken by auditors from District Audit in the six months to the end of September 1998 and includes results from visits to around 200 authorities and trusts.

7. Auditors have used a scoring mechanism to provide a quantitative view of their assessment of an individual authority’s or trust’s performance and compared that performance with a series of benchmarks [BOX A]. The benchmarks are updated regularly to reflect the dynamic nature of the year 2000 project. By comparing the changes that have occurred in the average position of groups of authorities and trusts in relation to the benchmark, the Commission has been able to assess whether groups are gaining ground or falling further behind in their preparations [EXHIBIT 1].

---

**BOX A**

**A check on progress**

Year 2000 benchmarks used to compare progress:
- senior management fully briefed;
- regular communication throughout the organisation taking place;
- strategy formulated for dealing with the problem;
- suitable project sponsor appointed;
- risk assessment undertaken;
- multidisciplinary project team operating;
- detailed project plan developed;
- year 2000 budget agreed;
- inventories complete;
- business partners identified and contacted;
- software licence problems identified;
- critical systems and equipment identified and priorities determined;
- purchasing specifications amended;
- contracts reviewed and renewed where necessary;
- testing plan formulated;
- testing well under way;
- contingency planning commenced; and
- relevant third parties identified and involved in contingency planning process.

*Source: District Audit*
8. The authorities and trusts in the sample used to illustrate the present position are not the same as those used in the management paper, *A Stitch in Time*, which covered the six months ending March 1998. The size of the samples, however, remains consistent and sufficiently large to enable valid conclusions to be drawn [BOX B].

9. The key messages from the latest assessments are that:
   - authorities and trusts have, in general, made significant progress since the Commission’s last report, with the average position now closer to the benchmark being used by auditors;
   - NHS bodies have made the greatest progress over the last six months;
   - the situation in local government is becoming more polarised, with district councils as a group falling further behind; and
   - all authorities and trusts should be developing contingency plans and involving relevant third parties in the planning process.
10. A comparison between local government, the NHS and the emergency services (which cover police, fire and ambulance services), provides an indication of the pace of year 2000 activity within each sector [EXHIBIT 2]. The NHS, on average, has made more progress than local government. All types of NHS authority and trust have improved their overall position in comparison with best practice benchmarks. Health authorities, in particular, have made most progress over the last six months. Progress in all sectors is being hampered to some extent by difficulties in obtaining compliance information from suppliers of equipment that contains embedded systems – for example, medical equipment.

11. Within local government, unitary councils and metropolitan authorities have made most progress. County councils have also improved their position. Both groups have narrowed the gap between their overall position and the benchmarks indicating that they are catching up. District councils, however, have made little headway and are losing ground. This reflects a generally lower level of activity on year 2000 preparations in district councils and puts the key public services for which they are responsible – such as housing, environmental health and payment of benefits – at greater risk.

12. The data has been organised to show an average for each category of authority and trust. The average includes those that are making good progress as well as those that need to increase the pace of their year 2000 activity. There is considerable variation between the action taken by individual authorities and trusts, with scope for many to learn from and match the standards of the best [EXHIBITS 3, 4 & 5].
13. Differences between the best and worst performers are more marked within local government than in the NHS [EXHIBIT 3]. The performance of almost two-thirds of district councils was assessed by their auditors to be below the average for local government as a whole; only a small number were considered to be at or ahead of best practice benchmarks.

14. A higher percentage of NHS authorities and trusts are closer to reaching the best practice benchmark than in local government [EXHIBIT 4]. However, those that are well below the average for the NHS as a whole must take urgent action now, otherwise they will have real difficulties in meeting targets set by the NHS Executive.

15. Progress by the emergency services sector is generally encouraging, with almost three-quarters of the bodies visited in the six months to the end of September 1998 assessed as being above the average for all audits undertaken [EXHIBIT 5]. Urgent action is required by the few authorities and trusts that are currently falling well behind the best practice benchmarks.
16. Being behind with their year 2000 preparations will make any organisation's contingency planning even more critical – although more difficult where earlier project stages have not been fully completed. Nevertheless, action on developing contingency plans needs to be taken now by all authorities and trusts to ensure that planned activities are not jeopardised – for example, it may be difficult to hire emergency electricity generators at short notice because of high demand.

**Detailed performance**

17. *A Stitch in Time* identified seven key steps that authorities and trusts should take when tackling the year 2000 problem. They are:

- raise awareness;
- put good project management in place;
- determine the size of the problem and the risks faced;
- decide priorities;
- change procurement practices;
- test critical systems; and
- prepare contingency plans in case things go wrong.

18. Detailed analysis of the preparations of the poorest performers in local government and the NHS across the seven key project areas indicates that these authorities and trusts lag behind in all areas of the project. Increased risks due to a failure to keep up with year 2000 preparations in such fundamental areas as project management and prioritising key services and systems for early action are not yet being mitigated by increased contingency planning activity [*EXHIBIT 6*].

19. From the latest visits by auditors, it is also possible to provide a more detailed picture of the overall progress made by authorities and trusts in the period up to September 1998 [*BOX C*]. Whilst progress has been made in all project areas, the poorest performers still have a great deal to do in fundamental areas of the year 2000 project, including prioritisation and budgeting.
## Overall position in September 1998

Authorities and trusts have made significant progress in the last six months.

<table>
<thead>
<tr>
<th>Key step</th>
<th>Progress by September 1998</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Awareness</strong></td>
<td>Almost all authorities and trusts have provided year 2000 briefings for senior management. Three-quarters are actively taking steps to improve understanding by communicating on the issue throughout the organisation.</td>
</tr>
<tr>
<td><strong>Project formation</strong></td>
<td>Good project management is critical to the success of the year 2000 project. In the NHS, almost all authorities or trusts have established multidisciplinary project teams and have appointed a project sponsor with the appropriate authority. In local government, one-third of project teams consist mainly of IT staff and two-thirds have appointed a suitable sponsor. As projects have progressed, more authorities and trusts have established a year 2000 budget – that is, 80 per cent in the NHS and almost 50 per cent in local government. Government estimates suggest that costs in the NHS could be around £390 million. The Society of Information Technology Management (SOCITM) has recently estimated that the figure for local government could be £259 million. Two-thirds of authorities and trusts have established formal mechanisms to flag and subsequently manage potential problems. Progress on embedded systems is still slower than for computer systems. Compliance information from suppliers is slowly beginning to emerge, together with estimated costs for fixing known problems.</td>
</tr>
<tr>
<td><strong>Scoping the problem</strong></td>
<td>Good progress has been made over the last six months in compiling inventories of IT, systems, equipment and contracts, with over 90 per cent of NHS organisations and 75 per cent of local authorities assessed as close to completing or having completed this critical step. Areas of doubt relate to inventories of embedded systems. 90 per cent of NHS organisations (two-thirds of local authorities) have requested compliance information from major suppliers and three-quarters (40 per cent in local government) have begun to follow up ambiguous responses. The last Commission paper reported the concern of authorities and trusts over the absence of information from major medical equipment suppliers. Information is now being made available, but the speed at which this is being released is hampering overall progress on year 2000 projects. Greater co-operation is evident between authorities and trusts, which are also beginning to share compliance information.</td>
</tr>
<tr>
<td><strong>Prioritisation</strong></td>
<td>It may not be possible to fix everything, and prioritisation is necessary. 80 per cent of NHS organisations and almost one-half of local authorities have determined which systems, equipment or services must take priority. This is a critical step for projects as a whole, and one that will need to be taken before contingency plans can be drawn up.</td>
</tr>
</tbody>
</table>

Continued overleaf
**Overall position in September 1998**
Authorities and trusts have made significant progress in the last six months.

<table>
<thead>
<tr>
<th>Key step</th>
<th>Progress by September 1998</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Change procurement practice</strong></td>
<td>Almost all authorities and trusts have amended their purchasing guidelines and specifications to ensure that future acquisitions are year 2000 compliant. There is still a need to test that acquisitions are compliant.</td>
</tr>
<tr>
<td></td>
<td>Critical contracts have been reviewed to ensure that supply continues and steps have been taken to involve legal expertise where appropriate in over half of authorities and trusts.</td>
</tr>
<tr>
<td><strong>Testing</strong></td>
<td>Half of all authorities and trusts have developed strategies for testing equipment, systems and any externalised services. Detailed testing plans and the specific tests to be undertaken are available in these organisations.</td>
</tr>
<tr>
<td></td>
<td>A similar proportion have ensured that change control procedures are sufficiently robust to cope with possible increased activity resulting from year 2000 changes to systems.</td>
</tr>
<tr>
<td><strong>Contingency planning</strong></td>
<td>Contingency planning is a critical activity for the next phase of the year 2000 project. One-fifth of NHS bodies (two-fifths in local government) have yet to start the contingency planning process.</td>
</tr>
<tr>
<td></td>
<td>Some have reported that the lack of assurance about the continuity of major utility supplies is making contingency planning much more difficult.</td>
</tr>
</tbody>
</table>

*Source: District Audit*
3. Risk management and contingency planning

Introduction

20. The year 2000 project is primarily concerned with risks – identifying and managing them. A key product is a contingency plan – or to be more accurate, contingency plans – since a plan is needed for each risk that cannot be eliminated, deferred or reduced to an acceptable level.

21. This section provides a brief summary of the practical steps that best practice authorities and trusts are taking to ensure that they have the appropriate plans in place [EXHIBIT 7].

22. It is generally agreed that such plans should be developed between now and the middle of 1999. It is worth remembering that there are several potential problem dates other than 31 December 1999.

23. This represents a relatively small contingency planning window. Those that delay may well discover that their proposed actions are more restricted or cannot be implemented. The availability of sufficient staff resources across the millennium is increasingly being identified as a potential constraint. This is a key area where early planning will be necessary. Consequently, authorities and trusts should already be actively engaged in, or at the very least be about to start, the contingency planning process.

Exhibit 7

Managing year 2000 risks

Contingency plans are needed in case risk management fails to eliminate critical risks.
24. Authorities and trusts already have in place a variety of plans to deal with incidents ranging from major emergencies, involving co-operation with third parties, to less urgent, internal events such as the recovery of a computer system following a hardware or software failure. These plans provide a useful starting point for contingency planning but will need to be reviewed in a year 2000 context to ensure that they remain relevant.

25. Cross-sectoral working and discussion are vital and should start now. Proposed action by one organisation may increase the risk in another's area of activity. For example, a decision by an acute NHS trust to reduce bed occupancy for a short period may increase pressure on community health services. Such interdependencies will need to be addressed in the contingency planning process.

26. Cross-sectoral working within a particular locality to address these and other common problems is, therefore, essential. Such co-operation also provides additional opportunities to share good practice; inter-agency forums are being formed in various parts of the country as a means of taking forward this important aspect of the year 2000 work.

**Risk management processes**

**Identifying the risks**

27. In order to reduce or manage risks, it is first necessary to identify the things that could go wrong despite all the best efforts of an authority or trust. One approach is to arrange for key staff to brainstorm ideas. Care will be needed to ensure that staff do not become too preoccupied with issues beyond their direct control. The year 2000 inventory of systems, equipment and contracts should provide a good starting point for discussion [CASE STUDY 1].

28. The process of risk identification is continuous. New risks may come to light as the project progresses and uncertainties are likely to remain because it may not be possible to test all equipment. But not all risks will be associated directly with a system or piece of equipment. Some will relate to a failure of a critical supply by a third party – for example, electricity or water. Others will emanate from the project itself – for example, the loss of key project staff.

29. All risks should be identified and logged in a centrally maintained register which details each risk, possible causes, risk reduction plans and those responsible for managing the risk.

**Prioritisation**

30. Deciding which risks should receive priority involves:

- assessing the consequences and possible impact of a failure;
- determining the probability of the failure occurring;
- determining the likely timing of a failure; and
- comparing these risks and consequences.

31. First it is necessary to assess the main consequences of a failure in a system or piece of equipment and its possible impact. The Local Government Association has been working with professional bodies to increase understanding of priorities within the local government sector [BOX D, overleaf]. Similar assessment models are also widely used within the NHS. The seriousness of each risk may differ and authorities and trusts should apply appropriate weightings as a quantitative indication of risk – for example, low to very high.

32. Another important element in prioritising risk is the probability that a failure will occur. The more likely a failure is to happen, the higher the weighting that authorities and trusts should apply. Finally, it is necessary to determine when the failure could occur. Systems that could fail sooner rather than later may need attention first.
**Case Study 1**

**Risk Identification**

Arranging for staff to brainstorm ideas is a useful way to start the contingency planning process.

In July 1998, the NHS Executive South and West Region arranged a contingency planning workshop at which delegates were invited to identify key processes, activities and equipment. Staff from the NHS Executive's Year 2000 Programme ran the workshop and the lessons learned are being used by authorities and trusts to develop contingency plans.

The findings for some key services were:

<table>
<thead>
<tr>
<th>Key service</th>
<th>Supply of blood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>request to laboratory collection and transport</td>
</tr>
<tr>
<td></td>
<td>book samples and request</td>
</tr>
<tr>
<td></td>
<td>group and cross-match</td>
</tr>
<tr>
<td></td>
<td>record information</td>
</tr>
<tr>
<td></td>
<td>generate compatibility labels</td>
</tr>
<tr>
<td></td>
<td>issue and store units</td>
</tr>
<tr>
<td></td>
<td>return surplus</td>
</tr>
<tr>
<td></td>
<td>people</td>
</tr>
<tr>
<td></td>
<td>refrigerators</td>
</tr>
<tr>
<td></td>
<td>reagents</td>
</tr>
<tr>
<td></td>
<td>blood</td>
</tr>
<tr>
<td></td>
<td>IT system</td>
</tr>
<tr>
<td></td>
<td>communications</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key service</th>
<th>Intensive Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>patient airway</td>
</tr>
<tr>
<td></td>
<td>management</td>
</tr>
<tr>
<td></td>
<td>cardiac support</td>
</tr>
<tr>
<td></td>
<td>other body systems</td>
</tr>
<tr>
<td></td>
<td>support</td>
</tr>
<tr>
<td></td>
<td>patient hygiene</td>
</tr>
<tr>
<td></td>
<td>communications</td>
</tr>
<tr>
<td></td>
<td>medical records</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key service</th>
<th>Emergency Surgical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>admission</td>
</tr>
<tr>
<td></td>
<td>assessment</td>
</tr>
<tr>
<td></td>
<td>treatment</td>
</tr>
<tr>
<td></td>
<td>nursing care</td>
</tr>
<tr>
<td></td>
<td>discharge</td>
</tr>
<tr>
<td></td>
<td>people</td>
</tr>
<tr>
<td></td>
<td>communications</td>
</tr>
<tr>
<td></td>
<td>IT systems</td>
</tr>
<tr>
<td></td>
<td>medical equipment</td>
</tr>
<tr>
<td></td>
<td>beds</td>
</tr>
<tr>
<td></td>
<td>environmental controls</td>
</tr>
<tr>
<td></td>
<td>piped gases</td>
</tr>
<tr>
<td></td>
<td>sterile supplies</td>
</tr>
<tr>
<td></td>
<td>people</td>
</tr>
<tr>
<td></td>
<td>communications</td>
</tr>
<tr>
<td></td>
<td>IT systems</td>
</tr>
<tr>
<td></td>
<td>medical equipment</td>
</tr>
<tr>
<td></td>
<td>beds</td>
</tr>
<tr>
<td></td>
<td>environmental controls</td>
</tr>
<tr>
<td></td>
<td>piped gases</td>
</tr>
<tr>
<td></td>
<td>sterile supplies</td>
</tr>
</tbody>
</table>

**Assumptions**

<table>
<thead>
<tr>
<th></th>
<th>No outpatients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mains power available</td>
</tr>
<tr>
<td></td>
<td>Curtailment of non-urgent elective surgery</td>
</tr>
</tbody>
</table>

*Source: NHS Executive South and West Region*
An example of a risk assessment diagnostic

It is important to assess the consequences of a failure and its possible impact.

<table>
<thead>
<tr>
<th>Consequences</th>
<th>Personal safety</th>
<th>Failure to provide statutory service/meet legal obligations</th>
<th>Financial loss or business disruption</th>
<th>Personal privacy infringement</th>
<th>Embarrassment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insignificant</td>
<td>Minor injury or discomfort to individual.</td>
<td>Litigation or claim &lt;£10K, for example.</td>
<td>Up to £1 OK, for example.</td>
<td>Isolated personal detail revealed.</td>
<td>Contained within section.</td>
</tr>
<tr>
<td>Minor</td>
<td>Minor injury or discomfort to several people.</td>
<td>Litigation, claim or fine £1 OK to £100K</td>
<td>£10K to £100K</td>
<td>Isolated personal detail compromised.</td>
<td>Contained within department or division.</td>
</tr>
<tr>
<td>Significant</td>
<td>Major injury to individual.</td>
<td>Litigation, claim or fine £100K to £500K</td>
<td>£100K to £500K</td>
<td>Several personal details revealed.</td>
<td>Local public or press interested.</td>
</tr>
<tr>
<td>Major</td>
<td>Major injury to several people. Death of individual.</td>
<td>Litigation, claim or fine £500K to £1 million Custodial sentence imposed.</td>
<td>£500K to £1 million</td>
<td>Several personal details compromised.</td>
<td>National public or press interest.</td>
</tr>
<tr>
<td>Catastrophic</td>
<td>Death of several people.</td>
<td>Multiple civil or criminal suits. Litigation, claim or fine above £1 million</td>
<td>Above £1 million</td>
<td>All personal details revealed and/or compromised.</td>
<td>Officer(s) and/or member(s) forced to resign.</td>
</tr>
</tbody>
</table>

Source: Local Government Association
Risk reduction

33. Having determined potential risks and decided which are critical, the next stage is to consider if and how each risk may be eliminated, deferred or reduced. It may be possible to eliminate a risk; for example, by replacing a non-compliant system or by creating the conditions so that it becomes impossible for the risk to happen, such as deciding not to use suspect equipment.

34. Deferring the risk may be an option in some circumstances. By delaying the occurrence or the effect of a failure, the risk is effectively deferred to a later date – for example, by disarming an electronic door entry system and issuing keys to authorised staff for a given period. The benefit of this approach could be that qualified staff are able to focus attention upon those risks that cannot be reduced or eliminated.

35. Risk reduction, on the other hand, acknowledges that the risk cannot be eliminated but that action can be taken to minimise its impact or probability. Actions may be categorised as follows:

- things to do immediately – for example, ensuring that contracts with alternative suppliers of critical goods and services are in place;
- things to do next year – for example, staff training; and
- things to do just before the change of the millennium – for example, instructing staff to back up their data.

36. Where it is not possible to eliminate, defer or reduce a risk to an acceptable level, a contingency plan is required.

Monitoring and review

37. Year 2000 risk management is not a one-off process. As more information becomes available, new risks may emerge and existing risks will need to be re-evaluated. One example might be the withdrawal of a supplier’s statement about the compliance of equipment. A risk monitoring and review mechanism is required that tracks and reports on existing risks and identifies new hazards as they emerge.

Developing contingency plans

38. There are various types of contingency plan:

- most plans are reactive, dealing with individual risks and describing the actions to be taken if something goes wrong;
- less numerous, proactive plans are those that are developed where risk assessment has revealed a particular problem area – for example, information systems in a particular department. In such cases it may be decided to take action before problems occur. Some reactive plans may also contain proactive elements and vice versa; and
- each organisation is likely to have a general plan, dealing with external links to locality-wide emergency plans, for example and overarching principles such as managing staff availability, maintaining communications and transport arrangements.

39. Not every identified risk requires a contingency plan, only those that cannot be eliminated, deferred or reduced to an acceptable level. Each plan should:

- define the scope – a brief description of the risk, how and why the problem may occur and its possible effects;
- identify the triggers – what will activate the plan? The events or results that indicate that the problem has occurred must be clearly and unambiguously detailed. In some instances, the failure may be obvious – for example, the complete shutdown of a computer system. There will be other instances where the failure is less obvious – in other words, where the system continues to work but produces erroneous
information. Such occurrences will be more difficult to detect and will require detailed monitoring procedures;

• describe what to do if the problem occurs and what the results of those contingency actions are anticipated to be. The action may not be intended to return things to normal and staff will need to be made aware of this. In addition, it is necessary to decide the duration of any action, the training required and whether there is anything that can be done in advance to make future actions more effective;

• define responsibilities, identifying those who decide that the plan is to be initiated, what resources are to be allocated to it and when action should cease; and

• allocate priorities. Each plan should describe its relative priority in case a number of contingency plans are activated simultaneously.

40. Each contingency plan should be documented [CASE STUDY 2]. In some cases, it may be possible to bring together into one plan those containing similar actions. Once contingency plans have been prepared, they should be tested, recognising that testing a contingency plan carries a certain amount of risk. The results from any tests should be considered as soon as possible and corrective action taken where necessary [CASE STUDY 3].

CASE STUDY 2
An example of a contingency plan
A plan should be kept as simple as possible but should contain sufficient detail.

Housing Department – Happy Days sheltered accommodation

Introduction
The central heating boiler may not be compliant.

Scope
There are 30 elderly residents at Happy Days sheltered accommodation. The central heating boiler provides heating to all 30 flats, the warden’s accommodation and all communal areas.

This plan is intended to cover the possibility that the boiler may fail on 31 December 1999. It assumes that the electricity supply will be available.

The boiler cannot be tested effectively and the supplier is non-committal.

In advance
The warden will check that the boiler is operational every 12 hours for one week before and one week after 31 December 1999. Ensure that sufficient portable radiators are reserved from central supplies for use at Happy Days. Radiators will be stored in the plant room for the two weeks spanning the new year.

Training
The warden will be trained to restart the boiler following a shut down.

Trigger
The boiler fails.

Action
Portable radiators will be provided in each flat and communal areas until the engineer can restart the boiler.

Duration
One week – that is, the maximum time required to fix the problem.

Responsibilities
The warden is responsible for monitoring and activating the plan.

Relative priority of this plan
High.

Source: Audit Commission
CASE STUDY 3

Testing contingency plans
Valuable lessons can be learned from testing plans.

Scenario
In September 1998, the North Hertfordshire NHS Trust tested its plans for continuing to provide services in the event of a prolonged loss of electricity supply. The test was planned with the help of the NHS Executive and involved the co-operation of other organisations locally. The exercise meant that the Lister Hospital in Stevenage was without mains electricity for a period of 15 hours.

Some key actions were necessary before the exercise could take place:
- additional electricity cabling was installed to provide power for lifts; and
- increased electricity generator capacity was acquired.

Key lessons from the exercise
- an early view of the minimum level of services to be provided is crucial in informing the contingency planning process;
- the commitment of accountable clinical and medical directors is essential;
- full understanding and communication of the technical problems and risks are necessary so that clinical service options can be formulated;
- having communicated the problem and understood the risks, a senior managerial and clinical team can start to challenge some of the initial minimum service requests and therefore reduce potential costs;
- early involvement of outside agencies, health authority, GPs, ambulance, police and other trusts helps to improve arrangements for joint support;
- the establishment of clear lines of command is very important. Well-meaning helpers can cause confusion by interfering in areas for which they have no responsibility;
- key managers must be on site to take decisions since conditions and associated risks may change;
- the use of volunteers needs careful management;
- lighting is a particular problem area;
- an alternative messaging service is essential in case telephones are out of action; and
- an answerphone in the control room with updated progress messages can save time on telephone enquiries.

Source: North Hertfordshire NHS Trust

Involving others

41. Given the nature of the year 2000 problem and the impact that one organisation's failure can have upon others, it is vital that the efforts of key bodies that are responsible for delivering services in a particular locality are properly co-ordinated. Local authority emergency planning units have a vital role to play here.

42. Although year 2000 projects have tended to be dominated by people working in IT or operational departments, local authority emergency planning officers should be directly involved in planning for contingencies arising from the millennium. Their experience of planning for large-scale public gatherings or various forms of utility failure in particular will be vital to the success of the planning process.

43. To enable them to make more informed judgements about the adequacy of existing plans and any further action required, emergency planners will need to understand the levels of preparedness within key organisations, the nature of remaining vulnerabilities, and the resources that are being made available to deal with them.
44. Establishing links with key organisations will be important in order to develop the co-operation that is essential in addressing year 2000 issues. Many links have already been established and standing forums created through professional bodies, industry associations, Business Link and local Chambers of Commerce. Others are being developed. For example, the Local Government Management Board is facilitating regional forum meetings to bring together local authorities with other key players.

45. Existing forums may not, however, be sufficient to bring together all of the critical players that have an important role to play in contingency planning for the millennium. In some regions, local authorities have hosted inter-agency seminars to bring together organisations that provide essential services in that locality as a first step towards deeper co-operation [CASE STUDY 4].

46. Key organisations in the emergency planning process will include:

- the NHS;
- local authorities;
- the emergency services;
- privatised public utilities – that is, the providers of power, water, and telecommunications which underpin the activities of all essential services;
- other organisations occupying a similarly important position in terms of the UK infrastructure such as Railtrack, bus and train operating companies, passenger transport executives, airports and so on;
- central government departments or agencies that operate locally such as the Environment, Highways and Benefits Agencies, which can play a role in major incidents; and possibly

CASE STUDY 4

Leeds City Council emergency planners are engaged in inter-agency co-operation for the year 2000 at the district, county, regional and national levels.

In the city of Leeds, discussions have taken place with representatives from NHS trusts and the health authority regarding the problems faced by the NHS. This has led to the creation of a city-wide year 2000 health working group, which has agreed joint operational control arrangements and will undertake joint planning with the City Council.

The group is chaired by the NHS regional health emergency planning adviser and includes representatives from the health authority, public health, year 2000 project managers from NHS trusts, the ambulance service, and the Council's peace and emergency planning unit.

The Council is also a member of the West Yorkshire emergency planning officers forum, a standing body which brings together emergency planners from five metropolitan district councils, the fire and civil defence authority, the emergency services, NHS, Environment Agency, and Yorkshire Water on a bi-monthly basis. The forum has established a year 2000 working group to share information and best practice, and to consider joint planning, cross-border issues and mutual aid.

In November, the Council's emergency planning unit is hosting an event for the whole of West Yorkshire to develop a fuller understanding of the implications of the millennium for contingency planning.

The conference will include speakers from specific sectors (local government, emergency services, NHS, Health and Safety Executive, utilities) and workshops focusing on the potential consequences of a limited number of millennium scenarios – for example, a wide-area power failure, loss of two major services simultaneously and disruption caused by a major New Year celebration – in order to get to grips with issues of resources and co-

The unit is also co-operating with the Local Government Management Board's Yorkshire regional year 2000 network and the Emergency Planning Society's national year 2000 working group.

Source: Peace and Emergency Planning Unit, Leeds City Council
• supermarkets, banks and petrol stations and their ability to continue operating and fulfilling their vital functions.

47. In some areas, additional organisations will need to be included where an increased risk is evident – for example, risks associated with hazardous chemical sites. Authorities and trusts should also consider how they might provide leadership in the community by determining what assistance with year 2000 preparations they could provide to other organisations, both inside and outside their sector [CASE STUDY 5].

CASE STUDY 5

Leadership in the community
How the London Borough of Lewisham is taking a lead in tackling the year 2000 problem.

On 9 September 1998, Lewisham Council hosted its first millennium bug conference. The aims were to bring together all those within the borough with a common and shared interest in surviving the millennium date problem and to alert small-to-medium sized enterprises to the potential risks.

A community-wide campaign was mounted to promote the event using a variety of channels including trade associations, local and national press, radio interviews, teletext broadcast, a local poster campaign and direct mail to all local businesses.

The event was well received and provided an ideal opportunity for information sharing and collaborative working. Delegates received a clear understanding of the year 2000 problem and the potential liabilities for failure to comply. Experienced facilitators were on hand to give advice on business continuity issues and exhibitors demonstrated a variety of tools and approaches to minimising the negative effects of the millennium bug.

The conference also provided an opportunity to conduct an assessment of the Borough’s year 2000 preparedness, using technology to collect instant responses from delegates on a whole series of year 2000 issues. Key findings from this session were:

• three-quarters had started to tackle the problem but the remainder believed they were not affected or had taken no action;
• 41 per cent believed the problem to be serious, but 5 per cent thought the topic over-hyped;
• 41 per cent felt that they could resolve bug issues within 12 months, while 13 per cent had no idea how long it would take them;
• delegates had greatest concerns for services provided by utility industries. Least concern was expressed about whether central government would be affected;
• almost one-third had already experienced bug-related problems; and
• 79 per cent were confident that they knew where they could obtain support and advice to tackle the problem.

The Borough intends to repeat the survey at regular six-monthly intervals as part of a process of consulting and engaging the local business community. Three dedicated information services have been established to ensure that the momentum is maintained.

Source: London Borough of Lewisham
Management challenges

<table>
<thead>
<tr>
<th>You should ensure that you have...</th>
<th>so that you minimise the risk of...</th>
<th>and benefit from...</th>
</tr>
</thead>
<tbody>
<tr>
<td>identified risks</td>
<td>something going wrong</td>
<td>business continuity</td>
</tr>
<tr>
<td>decided which risks are critical</td>
<td>allocating resources to reducing risks in non-critical areas</td>
<td>key business areas being addressed first</td>
</tr>
<tr>
<td>decided what action to take now to eliminate, defer or reduce risks to an acceptable level</td>
<td>simultaneous failures occurring</td>
<td>key business processes being ready</td>
</tr>
<tr>
<td>put a risk monitoring mechanism in place</td>
<td>unforeseen events causing failures in services</td>
<td>business continuity</td>
</tr>
<tr>
<td>developed contingency plans for those risks that cannot be eliminated, deferred or reduced</td>
<td>failures causing disruption to services</td>
<td>confidence that services will continue</td>
</tr>
<tr>
<td>tested your contingency plans</td>
<td>unforeseen events causing a failure in services</td>
<td>the confidence that plans are realistic and comprehensive</td>
</tr>
<tr>
<td>involved relevant third parties in the planning process</td>
<td>knock-on effects in your services caused by the actions of others</td>
<td>a comprehensive set of plans that reduce the risk of major disruption to services</td>
</tr>
</tbody>
</table>

Chief executive's indicators of success

<table>
<thead>
<tr>
<th>Indicators of success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk register in existence that is being maintained</td>
</tr>
<tr>
<td>Prioritised list of risks that reflect organisation-wide priorities</td>
</tr>
<tr>
<td>Risk reduction plans being developed and implemented</td>
</tr>
<tr>
<td>Results from contingency plan testing are available for review</td>
</tr>
<tr>
<td>Key players both inside and outside the authority or trust are involved</td>
</tr>
<tr>
<td>Contingency plans are in place and cover key business processes and areas</td>
</tr>
</tbody>
</table>
4. The next steps

48. Significant progress in preparing for the year 2000 has been made since the last Commission report. Although the overall position indicates that projects remain behind schedule, it is evident from the latest assessments that many authorities and trusts are now catching up. Progress in all sectors is encouraging, but there are specific concerns about the performance of district councils.

49. More detailed analysis of the latest reviews demonstrates that the variation between the best and worst performers in each sector is wide. There are real opportunities for many authorities and trusts to improve so that they match the performance of the best.

50. At this stage of the project, contingency planning is a key activity that all authorities and trusts should be pursuing. Plans are required in each area where risks remain above an acceptable level. Interdependencies also mean that cross-sectoral co-operation is vital when drawing up contingency plans.

51. Councillors and non-executive directors should review progress and performance with their officers.

52. Authorities and trusts should also:
   • review progress and performance with their auditors;
   • identify those critical embedded systems where compliance information has not been forthcoming and liaise with suppliers to ascertain what plans, if any, exist to make the equipment compliant;
   • prepare contingency plans and ensure that all key organisations within the locality are part of the planning process; and
   • develop a communications strategy for managing public concerns.

53. Those authorities and trusts whose year 2000 preparations are well advanced should also consider how they might provide leadership throughout the community by determining what assistance with year 2000 preparations they could provide to other organisations, both inside and outside their sector.

54. Those that are behind in their preparations are urged to consider and take immediate action on the Commission’s previous management paper, A Stitch in Time, which contained more detail, self-assessment checklists and best practice examples. For these authorities and trusts in particular, prioritisation and contingency planning will be vital activities in the coming months.

55. The Commission will be working with the Local Government Association and others to help provide an effective framework in which prioritisation and contingency planning work can take place. The Commission’s auditors will continue to monitor progress and bring issues of concern to the attention of management. It will publish updates to this paper on a regular basis and share examples of best practice in the lead up to 1 January 2000.
The year 2000 poses problems for all organisations that rely on computers and other equipment that contains microchips. Preparing for the new millennium is a major management challenge; organisations that delay taking action increase the risk that key services will fail. In particular, malfunctions in NHS and local government systems could have serious implications for public health and safety.

In June 1998, the Audit Commission published a management paper, *A Stitch in Time*, to help members, non-executive directors and chief officers in local government and the NHS to minimise the risk of serious disruption to services. It outlined key actions and appropriate timescales for management and contained examples of best practice.

This update provides a picture of the progress made by authorities and trusts in their year 2000 preparations in the six months to September 1998 and contains practical guidance on preparing contingency plans – a vital activity that all organisations should be addressing now.