

Audit Committee 23 September 2010

Internal audit report – Business continuity arrangements review

Executive summary and recommendations

Introduction

PKF has undertaken a review of Business continuity arrangements, in accordance with the internal audit plan agreed by the committee in February 2010. The report is attached as an appendix to this paper.

The report rated this area as sound and made no recommendations.

Decision

The Committee is asked to discuss the report.

Background information

At its meeting in February 2010, the Committee approved the Internal Audit Plan for 2010-11.

Resource implications

None.

Financial implications

None.

Appendices

Business continuity arrangements review – report.

Date of paper

13 September 2010.



Health Professions Council

**Business continuity
arrangements review 2010/11**

Final August 2010

Confidential



Accountants &
business advisers

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1 Introduction and scope

1.1 In accordance with the 2010/11 internal programme for the Health Professions Council (“HPC”) that was agreed with the Audit Committee in February 2010, we have undertaken a review of the organisation’s business continuity arrangements.

Scope of our work

1.2 A total of six high priority risks (before mitigations) have been identified by the HPC in relation to its business continuity arrangements. We therefore reviewed the arrangements for managing these key risks including the following areas:

- Business continuity planning, including disaster recovery site and plan testing arrangements;
- Support and maintenance contracts for telephony;
- Flood barrier and other physical protections against the risk of flood in operation; and
- Ongoing space planning.

1.3 Other business continuity matters such succession planning and loss of key employees are covered by our separate review of the HPC’s human resources management arrangements to be undertaken during 2010/11 and have not therefore been considered as part of this assignment.

1.4 The work was carried out primarily by holding discussions with relevant staff and management, reviewing any available documentation and undertaking detailed testing on a sample basis, where required. The audit fieldwork was undertaken in July and August 2010.

1.5 This report has been prepared as part of the internal audit of the Health Professions Council under the terms of the contract for internal audit services. It has been prepared for the Health Professions Council and we neither accept nor assume any responsibility or duty of care to any third party in relation to it.

1.6 The conclusions and recommendations are based on the results of audit work carried out and are reported in good faith. However, our methodology is dependent upon explanations by managers and sample testing and management should satisfy itself of the validity of any recommendations before acting upon them.

2 Executive summary

- 2.1 This report summarises the work undertaken by PKF within the agreed scope of our review of the business continuity arrangements in operation at the HPC. The work was performed as part of our agreed internal audit plan for 2010/11.

Background

- 2.2 The HPC operates primarily from the organisation's Head Office in Kennington. Access to premises and the telephone and computer systems is important to the capability of the HPC to conduct its business and to maintain the register of health professionals - the organisation's principal responsibility.
- 2.3 The HPC is also forecast to grow further over the coming years as new health professions are brought onto the register and fitness to practise casework is also expected to increase. Substantial further growth will also arise once the regulatory functions and those employees who are wholly or mainly engaged in the regulatory functions of the General Social Care Council are transferred to the HPC. Ensuring that it has sufficient accommodation to respond to these developments is a priority for the HPC going forward.

Our assessment

- 2.4 Based on the audit work carried out we concluded that the HPC's business continuity arrangements were sound at the time of our review.

Principal findings

- 2.5 For the principal risk areas identified by the HPC, such as flood damage and disruption to the organisation by postal or public transport strikes and electrical and telephone faults, our review work indicated that management has put into place preventative controls to mitigate the impact of these circumstances.
- 2.6 The HPC has recently implemented an on-line renewals system for its registrants. This should reduce postal volumes considerably and reduce the dependence of the organisation on the postal service. The organisation has also put into place disaster recovery arrangements that have been regularly tested and should therefore operate effectively should they be required.
- 2.7 We noted that the HPC has considered in detail the arrangements for the progressive return of its employees in the event of a disaster, prioritising the key systems and individuals required to re-establish operations and providing the capacity to extend remote/ home working where necessary. These arrangements were determined following the tests undertaken of the HPC's disaster recovery plan in 2009.

- 2.8 Since the HPC came into being as the need for additional space has been identified through this planning process, new premises have been purchased to provide the required accommodation.
- 2.9 Shorter term measures have also been applied at the HPC whilst the accommodation is being made ready for occupation such as renting additional meeting room space and hot-desking. These arrangements appear to have proved sufficient for the HPC's purposes to date.
- 2.10 We noted that more office space is still required and a paper setting out the HPC's current office accommodation strategy was presented to the September 2010 meeting of the Finance and Resources Committee. This followed on from a previous paper presented in November 2009.
- 2.11 However, there remains some uncertainty regarding the precise accommodation requirements for the organisation going forward in the light of the proposed abolition of the General Social Care Council and the transfer of its regulatory functions to the HPC. This may require the HPC to reconsider its accommodation needs again at a later date.
- 2.12 We wish to thank all members of staff for their availability, co-operation and assistance during the course of our review.

PKF (UK) LLP
August 2010

3 Detailed findings

Background

- 3.1 The principal function of the HPC is to maintain the register of accredited health professionals. The IT systems of the organisation are therefore essential and need to be capable of being restored within a relatively short time in the event of an IT disaster if the HPC is to continue to function effectively. The Head Office at Park House is the centre of the HPC's operations. Access to this building is also important since all the HPC's employees are based there and the organisation's fitness to practise hearings are conducted in its meeting rooms.
- 3.2 Although developments have been progressively made to the HPC's IT systems, including the introduction of on-line renewal, much of its work in relation to registrations still relies upon the postal service. For example, in May 2010, over 14,000 renewal notices were despatched by the HPC. In some months the level of notices can be considerable higher. In February 2010 over 44,000 renewal notices were despatched, together with over 8,000 final notices.
- 3.3 For the above reasons business continuity risks relating to the IT and office infrastructure are rated as high risk (before mitigations) on the HPC's risk register.
- 3.4 In addition, the HPC is an organisation that has grown considerably since it came into being in April 2002 as it has become responsible for the regulation of increasing numbers of health professionals. The current version of the HPC's Five Year Plan anticipates further growth with employee numbers rising from around 150 full time equivalent employees ("FTEs") forecast for 2010/11 to just under 190 FTEs by 2014/ 15. The number of fitness to practise cases is also forecast to increase by 86% over the same period. Substantial further growth will also arise once the regulatory functions and those employees who are wholly or mainly engaged in the regulatory functions of the General Social Care Council are transferred to the HPC.
- 3.5 Premises planning and management therefore needs to be effective so that the HPC is able to respond to this growth and has sufficient accommodation for its employees and operations.

Key risks

- 3.6 The HPC has identified the following key risks in relation to business continuity in its most recent (February 2010) risk register:
- Inability to communicate via postal services e.g. postal strikes (risk 2.4);

- Public transport disruption leading to inability to use Park House (risk 2.5);
- Inability to accommodate HPC employees (risk 2.6),
- Interruption to electrical supply (risk 2.7),
- Telephone systems failure resulting in protracted service outage (risk 2.10),
- Basement flooding (risk 2.11); and
- Failure of IT continuity provision (risk 5.4).

3.7 The principal controls that the HPC is relying upon to manage these risks are as follows:

- Business continuity planning, including disaster recovery site and plan testing arrangements;
- Support and maintenance contracts for telephony;
- Flood barrier and other physical protections against the risk of flood in operation; and
- Ongoing space planning.

3.8 The findings of our review of these controls are set out below.

Findings

Business continuity arrangements

3.9 Preventative controls have been established by the HPC to mitigate against its various business continuity risks. The principal controls for each identified risk area are set out in the following paragraphs.

Postal communications

3.10 The HPC remains dependent upon the postal system in undertaking its operational activity. The main area of dependence is the Registration Department, which issues over 200,000 renewal notices each year. Other aspects of the HPC's operations that rely upon the postal service include fitness to practise documentation and consultations.

3.11 The HPC has recently implemented an on-line renewals system for its registrants. This should reduce postal volumes considerably and reduce the dependence of the organisation on the postal service. We understand that recent strikes have been localised but have been disruptive. During these strikes the HPC has increased its use of courier services and special delivery for urgent correspondence.

- 3.12 Extended time frames for renewals have also been used to allow for the disruption. During the exceptional circumstances of a strike in Northern Ireland, the HPC sent registration advisors to Belfast University Hospital to allow registrants to renew in person.
- 3.13 In the event that a strike was localised in the Kennington area and ran for an extended period, we understand the HPC would consider processing any renewals that have not been undertaken on-line from the disaster recovery site in Uxbridge.
- 3.14 We have therefore concluded that although it is not possible to entirely mitigate the impact of disruption of the postal services upon the HPC whilst the organisation remains dependent upon the post to conduct its business, management has put in place the best practice controls necessary to limit the impact of such circumstances upon the HPC's ability to continue to operate effectively.

Public transport

- 3.15 Park House is located in Kennington Park Road with regular bus links and in close proximity to Kennington tube station. Other tube stations that are within walking distance include Elephant and Castle and Vauxhall, providing alternatives should the Northern Line of the tube network be closed for an extended period. In the event that there was a London-wide strike that made access to Park House impractical, we understand that the HPC would consider permitting its employees to work from home where feasible.
- 3.16 This is likely to be a practical solution in most cases since recent strikes have been publicised well in advance, enabling preparations to be made for home-working. In the event of extended disruption to public transport services and employees were unable to find an alternative means of travelling to Park House, we understand that the HPC would consider invoking its disaster recovery arrangements.
- 3.17 We have therefore concluded that management has put in place the arrangements necessary to limit the impact of disruption to public transport upon the ability of the HPC to operate effectively.
- 3.18 Park House is located within reach of a number of tube lines and has regular bus links, providing options to its employees in the event of a public transport strike. Disaster recovery arrangements are also in place to cover the possibility of an extended disruption to public transport services. These arrangements are consistent with best practice in operation at other health regulators.

Electrical supply

- 3.19 We understand that the electrical supply is provided by two lines, which are out of phase. This means that should the supply to Park House fail, the line to Stannary Street may still be operational.

- 3.20 The HPC has Uninterrupted Power Supply (“UPS”) in place which provides two hours of power, enabling the organisation’s computer systems to be closed down systematically.
- 3.21 From our discussions with management, we noted that recent experience of power outages by the HPC has indicated that these take place approximately every eighteen months and are usually just over two hours.
- 3.22 HPC management has experience of dealing with power outages and the organisation’s response has been tested through real incidents. For example, in October 2006 a power failure in the South London area at around 3pm in the afternoon cutting off the electrical supply to the HPC. The UPS enabled the servers to be closed down systematically and emergency lighting operated as expected.
- 3.23 The Incident Management Team that were present on site at the time met to consider the appropriate course of action once the nature of the incident had been determined. In view of the time that the incident arose, employees were advised to go home and report back to the HPC the following day. Power was restored to the South London area at around 6.30 pm that evening.
- 3.24 In September 2007, the power supply to Park House was disrupted by contractors working in a nearby street. The result was that the supply to some parts of Park House was cut. The HPC’s response to this incident involved moving employees and equipment to those parts of Park House and Stannary Street, where the supply continued to function. The emergency lighting operated as expected in the affected areas of the building, although these were ultimately shut down for safety reasons. Power was restored the following day (a Saturday).
- 3.25 We noted that after each incident a “lessons learnt” report was prepared by the HPC and some amendments to the organisation’s response were introduced.
- 3.26 A power outage of a more extended period (i.e. 24 hours) would be more problematic. In these circumstances, the HPC would consider invoking its disaster recovery plan and restoring its operations at the disaster recovery site in Uxbridge.
- 3.27 We are advised that the HPC has considered purchasing a generator, which would provide a power supply on site in the event of a power outage.
- 3.28 However, the costs are considered by management to be disproportionate to the risk and the current disaster recovery and UPS arrangements have to date been sufficient to address the HPC’s requirements.
- 3.29 We concur with this approach which is consistent with best practice in operation at other health regulators.

Overall disaster recovery arrangements

- 3.30 The HPC has contracted with ICM Business Continuity Services Limited ("ICM") to provide a designated remote site in Uxbridge, where the organisation can restore its operations in the event of a disaster.
- 3.31 The HPC also has access to a back up disaster recovery site provided by ICM in Old Street, London. ICM can also provide other facilities should these sites not be available. We noted that the HPC is considering the ICM site in Sevenoaks as an alternative.
- 3.32 The principal services provided by ICM are as follows:
- Ten seats at the disaster recovery site with PCs, printers, telephone and fax;
 - Meeting room space;
 - Access to backed up/ replicated data held at the HPC's Internet Service Provider which hosts the organisation's servers; and
 - Replacement servers.
- 3.33 The HPC's disaster recovery plan sets out the key steps to be followed by the Incident Management Team and each department in the event of an incident. We noted that the sequence of IT system restoration has been considered carefully and the HRInfo system is given priority so that next of kin can be contacted if required.
- 3.34 We also noted that the disaster recovery plan is regularly tested by the HPC and we attended a test scenario undertaken by the organisation in May 2010. The test exercise covered a scenario that began with a road traffic accident causing Kennington tube station to be closed, escalating to an evacuation of the surrounding area and the development of a major incident potentially involving the closure of Park House for an extended period.
- 3.35 This exercise followed smaller scale testing undertaken on the previous day of the various systems by the HPC's IT Team to ensure that they could be restored at the back up data centre in Bristol (with access from Uxbridge) in accordance with the timescales required by the HPC. We are advised that this testing was satisfactory. We noted that a similar exercise was undertaken in 2009/10.
- 3.36 The disaster recovery site that is currently in place primarily provides facilities for those involved in restoring the HPC's operations. Up to thirty employees also have remote access licences, enabling them to access the HPC's systems from home using an HPC laptop in the event of an incident. The remaining employees would be unable to perform their day to day duties, particularly those employees whose duties do not involve the use of a computer.

- 3.37 If the HPC was unable to access Park House for an extended period, we understand that Regus managed office space is available in relatively close proximity to the HPC's disaster recovery site in Uxbridge. As the HPC began to restore its operations, this would provide the opportunity for the gradual return to work for the organisation's employees until a permanent solution could be put into place.
- 3.38 We have therefore concluded that the HPC has established disaster recovery arrangements in place and that these have been tested recently, which confirmed that they are likely to operate effectively should an incident arise.
- 3.39 We also noted that the HPC has considered in detail the arrangements for the progressive return of its employees in the event of a disaster, prioritising the key systems and individuals required to re-establish operations and providing the capacity to extend remote/ home working where necessary. These arrangements were determined following the tests undertaken of the HPC's disaster recovery plan in 2009.

Support and maintenance contracts for telephony

- 3.40 The HPC's telephone system comprises a Private Branch Exchange ("PABX") (which connects all of the HPC's internal telephones and connects the network to the exchange) and an Automatic Call Distributor ("ACD") which directs incoming calls to the correct internal number.
- 3.41 We understand that the ACD is backed up in full weekly and once a month a full back up is written to tape and sent off site for archiving. The PABX is backed up each time there is a configuration change and the back up is stored on the ACD. These arrangements should enable the systems to be restored quickly once any fault has been rectified.
- 3.42 Maintel has serviced and maintained the HPC's telephone systems under a support contract since October 2006. The contract specifies the agreed response times that Maintel are required to meet when the HPC reports a fault with the telephone system. If the fault is a high priority matter, Maintel undertakes to ensure that an engineer is on site within four hours. We understand that there have been no significant problems with the quality of the service provided.
- 3.43 However, the HPC remains potentially exposed to external faults with the BT lines connecting its telephone system with the exchange. For example, in September 2007, the telephone lines between the BT exchange on Kennington Park road and the HPC were cut by contractors working in the road. BT took approximately four hours to repair the lines. In the meantime, BT provided an automated message for the HPC's telephone lines indicating that an external fault was causing disruption. In the event that a more extended external fault arose, we understand that the HPC would consider invoking its disaster recovery plan and redirecting calls (e.g. for registration) to the recovery site in Uxbridge.

- 3.44 We have therefore concluded that management has put into place the controls necessary to mitigate the impact of a break down in telephony services. The HPC's own telephone systems are provided under contract, which requires the arrival of an engineer to resolve any issues on a timely basis.
- 3.45 The organisation cannot entirely protect itself against faults caused by damage to the external telephone lines to Park House, which are maintained by BT and can cause disruption to the HPC's operations. However, we believe that the disaster recovery plan arrangements that have been put into place should enable the organisation to be able to address an extended fault should this arise.

Flood barrier

- 3.46 The basement of Park House in Kennington Park Road can become flooded if the local drainage system is unable to cope with excess rain water or a water main or sewer bursts. The Finance Department is currently located in the front basement of the property. If the basement was flooded to the level of the electrical wiring in the basement, access to this level of the property could be restricted for an extended period.
- 3.47 To mitigate this risk, the HPC has purchased a Floodgate door barrier that provides protection up to a level of one metre. The barrier is installed overnight by the security guard from the Corps of Commissionaires as they lock up the building and during periods of heavy rain. We understand that to date the barrier has provided sufficient protection to the property.
- 3.48 We understand that HPC management has considered various options for additional protection available in the event that the water level was to exceed one metre. The cost of works to the sewer and drainage system that would be required to mitigate these circumstances is considered by HPC management to be excessive and disproportionate to the risk and the organisation has decided not to invest in additional protection. We concur with this approach.
- 3.49 Should the basement become flooded in spite of the barrier, the Finance Department could be relocated temporarily to the Stannary Street premises, which does not have a basement and has a separate power supply.
- 3.50 We have therefore concluded that the HPC's arrangements for managing the impact of a flood are proportionate and appropriate to the needs of the organisation.

Ongoing space planning

- 3.51 The HPC prepares a Five Year Plan, which is the principal document used to set out and forecast the HPC's office space requirements. The Five Year Plan is reviewed and updated annually.

- 3.52 In this document, assumptions are made regarding the level of employees required to deliver the HPC's strategic objectives and forecasts are made of the number of employees required by each department over the next five years, together with the implications for office and meeting room space required by the organisation.
- 3.53 The most recent version of the Five Year Plan was produced in November 2009 and contains the following key assumptions that are relevant to the HPC's premises requirements for the period to 2014/15:
- The numbers of Fitness to Practise cases are expected to increase by 86% to 841 per year;
 - The number of hearing days is expected to rise from 634 days in 2009/10 to 1,482 days by 2014/15;
 - Employee numbers are expected to rise by 41% over the next five years to 187.5 FTEs; and
 - Around £3 million will need to be set aside to cover the purchase of additional office space.
- 3.54 Since the HPC came into being as the need for additional space has been identified through this planning process, new premises have been purchased to provide the required accommodation. Shorter term measures have also been applied at the HPC whilst the accommodation is being made ready for occupation such as renting additional meeting room space and hot-desking. These arrangements appear to have proved sufficient for the HPC's purposes to date.
- 3.55 We noted that more office space is still required and a paper setting out the HPC's current office accommodation strategy was presented to the September 2010 meeting of the Finance and Resources Committee. This followed on from a previous paper presented in November 2009.
- 3.56 However, there remains some uncertainty regarding the precise accommodation requirements for the organisation going forward in the light of the proposed abolition of the General Social Care Council and the transfer of its regulatory functions to the HPC. This may require the HPC to reconsider its accommodation needs again at a later date.

4 Assurance definitions

Assurance Level	Definition
Sound	Satisfactory design of internal control that addresses risk and meets best practice and is operating as intended.
Satisfactory	Satisfactory design of internal control that addresses the main risks but falls short of best practice and is operating as intended.
Satisfactory in Most Respects	Generally satisfactory design of internal control that addresses the main risks and is operating as intended but either has control weaknesses or is not operating fully in some significant respect.
Satisfactory Except For.....	Satisfactory design of internal control that addresses the main risks and is operating as intended in most respects but with a major failure in design or operation in the specified area.
Inadequate	Major flaws in design of internal control or significant non operation of controls that leaves significant exposure to risk.