

Modernising Pathology Services in London

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Modernising Pathology Services in London

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Executive Summary

Pathology services are central to the delivery of high quality, patient centred healthcare in London. At least 70% of clinical decisions are made on the basis of pathology test results, yet we know that pathology could contribute even more to ensure that we get the clinical pathway and treatment right for each individual patient.

Based on the evidence collected for the national Carter review of pathology services in England¹, the baseline review of pathology services in London, and the work of the NHS London Clinical Expert panel (CEP) (Appendix 1), it is believed that there is a strong case for change in London pathology services to improve quality, patient safety and efficient use of resources.

London has 27 Trusts almost all of which receive the bulk of their pathology services from their own laboratories. In addition there are a small number of commercial providers, one public and private sector joint venture and some local SLA arrangements covering both routine high volumes testing and specialised testing. All the hospital laboratories provide a similar range of routine tests, and while there is some consolidation of specialised tests in the teaching and specialised hospital sites most laboratories deliver a more generalist service.

The CEP and Programme Board (Appendix 2) agreed that pathology services across London would benefit from being consolidated on a cluster model, based on one core laboratory for each cluster, with local laboratories in each acute hospital. The cluster should be a managed one, operating in an agreed equitable way to provide the right balance of economies of scale and appropriate access to services. To ensure that collaboration is achieved, savings at a system level will need to be shared through an agreed mechanism, ensuring that local hospital laboratories do not bare the brunt of rising costs from the loss of non-urgent secondary care, and direct access testing. It is also essential, that GP direct access work remains within the cluster arrangement, for the economies of scale and the full potential of savings to be made.

In addition the CEP made a series of recommendations to improve the quality, consistency, value for money and responsiveness of London pathology services. Several of these recommendations ***can be implemented in advance of structural change***.

Structural Recommendations

Recommendation1 - Core laboratories

The core laboratory is assumed to support all direct access work, and other non-urgent pathology demand not processed in the local laboratories². Estimating the potential demand for a core laboratory in London based on current levels of activity, one scenario could see demand of around 20,000,000 profiles per annum³.

¹ Report of the Second Phase of the Review of Pathology Services in England, Chaired by Lord Carter of Coles 2008

² This will be primarily outpatient work.

³ It should be noted that there are multiple demand scenarios for a core laboratory in London. This scenario was developed by estimating at a high level demand assuming only a number of core laboratories in London and future demand growth

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Recommendation 2 - Local laboratories in each acute hospital

The local laboratory should primarily support acute work required in a fast turnaround time (“TAT”). The model for histopathology is slightly more complex and assumes that both gross cut-up and consultant examination of slides would remain at the local laboratory site, alongside fine-needle aspiration (“FNAs”) and frozen sections.⁴ The service would support only the local specialist services. Support could be given via telepathology for secondary reporting and further expert support for other specialty areas. Local multi-disciplinary team (“MDT”) support should be provided by the relevant consultants either in person or through video-conferencing.

Recommendation 3 - Specialist laboratories

Specialist laboratories should be seen in parallel to a core and local cluster configuration, but these should be accredited with sufficient throughput and skill mix to provide an uninterrupted diagnostic service. Specialist services need not be consolidated in the core laboratory of each cluster but may remain elsewhere within the cluster, usually with the relevant expert service, but working in a networked fashion. It is not anticipated that new specialist laboratory facilities would be created.

Recommendation 4 - Paediatric services

The Paediatric Expert Panel (PEP) (appendix 3) was set up to look specifically at the reconfiguration of paediatric pathology services in London. They recommended that specialist (the definition of specialised service being any patient who has tertiary care requirements) paediatric pathology work should be rationalised and provided in 2 Hubs, one in north and one in south London, linked to the clinical proposals for services in the Children and Young Peoples Report.⁵ Routine paediatric work should follow the same cluster model routes as for adult work.

Recommendation 5 - Care closer to home

The CEP advocates that phlebotomy should be delivered in local accessible locations and at convenient times, with specialist phlebotomy for children sited in each borough. Whilst patient’s point of care testing (“POCT”) equipment in the community may provide rapid results and be convenient, the CEP notes that this method of testing is also costly. POCT should comply with the MHRA code⁶ of quality control and be managed by a CPA accredited laboratory service. There is also concern that the use of such screening has increased incorrect diagnosis of some long-term conditions e.g. diabetes. The CEP advises that such diagnosis should be confirmed by traditional testing methods prior to commencement of treatment.

⁴ FNAs and frozen sections are relatively low volume and usually are required within a fast TAT. See for example: NHSL 2010/11. *Laboratory Turn Around Times*.

⁵ Children’s and Young People’s Project, London’s specialised Children’s Services: Guide for commissioners 2010

⁶ MHRA Device Bulletin Management and Use of IVD Point of Care Test Devices DB2010(02) February 2010

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Service Quality Recommendations

Recommendation 6 - Research and Development (“R&D”) (Appendix 4)

Consolidating pathology R&D in line with laboratory services would improve standardisation and dissemination of output of academics of proven new techniques and tests into services, although it is noted that some of the smaller sites will continue to contribute to R& D in a cluster model.

Recommendation 7 - Teaching and training

The CEP recommend that the Commission for Medical Training and Education take into account the service redesign in London to ensure comprehensive curriculum delivery and programme design and delivery, by contracted lead providers. It is important to emphasise the need to ensure training and continued professional development to ensure robust succession planning.

Recommendation 8 - Lean

The CEP recognised that ‘Lean’ is an important tool in the modernisation of pathology services, improving safety within laboratories and improving quality, quality assurance and productivity and therefore ‘value for money’. It is recommended that each service implement lean processes within their laboratories, particularly when reconfiguring services.

Recommendation 9 - IT and order communications

The core and local cluster of pathology laboratories requires a high level of interoperability to support both primary and secondary uses of pathology. Robust logistics and information management & technology (“IM&T”) are therefore fundamental to successful implementation of any networked service, providing well ordered specimen reception with the ability to, trace and track samples and provide accurate and timely results that can be relied on. IT should be configured to support the work of clinical networks and MDTs. The needs of GPs should be incorporated so that they can access the results whether requested by them or not.

Recommendation 10 - Demand management

Order communications (“order comms”) systems can support demand management. Clinical audit in some hospitals has demonstrated that clinicians (junior doctors) sometimes, over order tests and the introduction of symptom based order profiles can support them to reduce this. Systems can be used to restrict the frequency of repeat tests. To assist hospitals to tackle over-ordering; the CEP has developed a list of the top ten test tests requested which the CEP consider would best be supported by a profile approach.

Recommendation 11 - Logistics

In a networked cluster model, robust logistics is of fundamental importance, underpinning the ability to provide a quality and responsive service. The service level agreement between parties should be comprehensive with agreed standards for:

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- specimen reception;
- sample collection and delivery between sites;
- the ability to track and trace specimens at all times; and,
- timely and accurate reporting of results within stated turnaround times.

Recommendation 12- Turnaround times

Having reviewed the turnaround times of a number of pathology services it was felt that these did not reflect the speed of turnaround which could be achieved in London's automated laboratories. Therefore the Paediatric Expert panel (Appendix 3) and the Adult Clinical Working Group (ACWG) (Appendix 5) developed a set of proposed London wide turnaround times which would deliver a 24 hour response in the majority of pathology specialities.

Recommendation 13 - Standardisation

Standardising procedures within clusters and across London can greatly improve quality, quality assurance, safety and cost effectiveness by providing a high level of interoperability between different service providers. This is best addressed by uptake of the revised Pathology Bounded Code List (PBCL)⁷ which links analyte names to units of measurement and suitability for combination of data from diverse sources. Over time this will be replaced by the National Laboratory Medicine Catalogue (NLMC)⁸ and the Pathology Harmony project⁹, which is tasked with harmonising units of measurement to be used in reporting results.

Recommendation 14 Accreditation

The CEP also recommends that all laboratories should be accredited by the Clinical Pathology Accreditation (UK) Ltd (CPA), now part of United Kingdom Accreditation Service (UKAS). It is appropriate though, that CPA should have flexible levels of accreditation to recognise the difference between core and local laboratories. Clinicians and laboratories should also partake in the relevant quality assurance programme as recommended by the United Kingdom National External Quality Assessment Service (NEQAS).

Recommendation 15 - Responsive services

Carter¹⁰ recommended and the CEP agrees that pathology service should be made more responsive to users' requirements; and in particular that phlebotomy and other sample collections services should be made more accessible and convenient to

⁷ Pathology Bounded Code List: <http://www.connectingforhealth.nhs.uk/systemsandservices/pathology/edifact/technical/standards/bounded>

⁸ National Laboratory Medicine Catalogue <http://www.connectingforhealth.nhs.uk/systemsandservices/pathology/projects/nlmc>

⁹ Harmonisation project: <http://www.pathologyharmony.co.uk>

¹⁰ Report of the second Phase of the Review of Pathology Services in England, Chaired by Lord Carter of Coles 2008

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service users. The increasing use of point-of care testing shows that pathology is moving towards more community-based services.

In order to gain greater insight into the priorities of users of pathology services; NHSL met with an invited Pathology Clinical User Group, (Appendix 6) and placed a Questionnaire for GPs to complete in the weekly NHSL GP Cluster Newsletter and also forwarded it to PCT communication leads for onward distribution. The GP Questionnaire results, when analysed indicated that although monetary considerations are important, the quality and availability of results are considered of paramount importance.

Workforce

The CEP recognised the need to reform the pathology workforce to further enhance the provision of high quality, efficient and effective services (Appendix 7).

Within London a specific pathology workforce workshop was organised to understand the current pathology workforce profile, the future requirements and how Modernising Scientific Careers (“MSC”) could address the problems identified by Lord Carter in a London setting. Within the workshop it was acknowledged that the grade mix of existing staffing may be top heavy, reflecting the large number of laboratories each with a full management structure. In London overall 25% of staff, excluding consultants and junior doctors, are at Agenda for Change (“AFC”) grade 6 or above. It is agreed that with reconfiguration, and automation and the move to care closer to home that changes to staff training must expand the ability of staff working at bands 3 and 4 to work as extended scope practitioners. This will support the delivery of point of care testing in primary and community care settings, and enable appropriate and flexible staffing of small local hospital laboratories.

A prototype new pathology re-profiling workforce tool ‘A guide to re-profiling health care science workforce’¹¹ is under test by the MSC early adopter sites and will be rolled out in April 2011. This is developed from work done at nine of the early adopter sites, where processes, activities and tasks for the staff in each pathology department were mapped, including biochemistry, haematology, microbiology and histopathology, and re-profiled. Although scientific staff may consolidate on core sites it is envisaged that medical staff will remain attached to their local hospital

Economic Analysis and Modelling

It is estimated that there is excess capacity in many laboratories in London and, on average, laboratories could increase testing by 10% to 30%, and in so doing only incur relatively small marginal costs, principally reagents. By employing more staff and extending operating hours, there is the potential to further increase capacity. In

¹¹ A tool for re-profiling Health care science workforce’ – available on Early Adopters website. ‘How to guide’ yet to be published.

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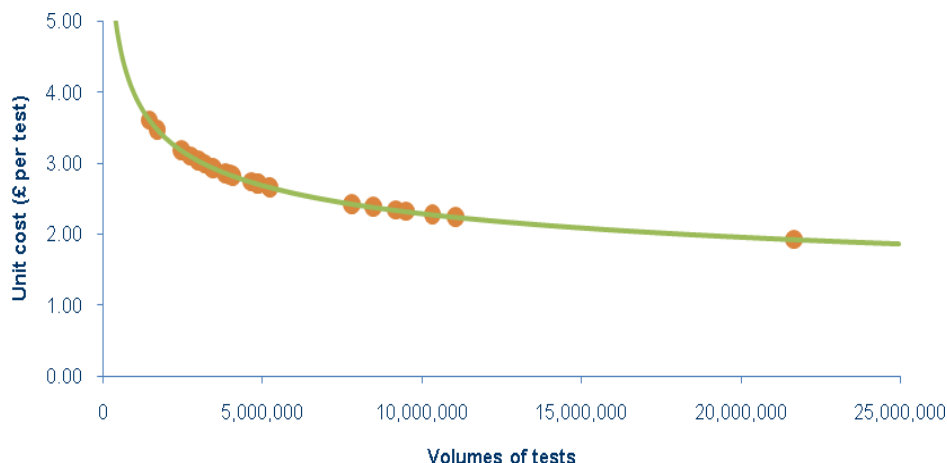
the newer more modern laboratories test volumes could be doubled or trebled without incurring significant additional fixed costs.

There is significant opportunity for improving pathology services in London

Bottom-up activity costing models of a local and core laboratory indicate that substantial savings could be achieved from the consolidation of pathology services. These models provide an initial specification of the laboratory, staff and equipment required in a modern, efficient laboratory. The models suggest that a local laboratory operating efficiently should service around one million analytes per annum¹².

The data provided to us by London trusts' supports the results of the bottom-up models - and confirms Lord Carter's findings – by showing, that average costs per test are reduced as volumes are increased. This implies that there are economies of scale in the provision of pathology services. As illustrated in the following figure, moving from the median sized laboratory currently in London to a core laboratory servicing 15m tests per annum could reduce the average cost of each test from around £3 to £2. The position of London Trusts is indicated on the cost curve.

Figure 1: Calculated Relationship between volumes and costs

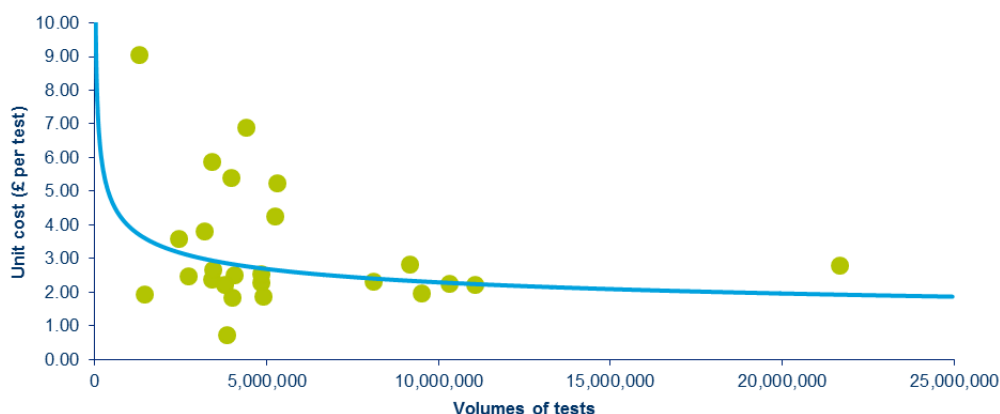


This uses the econometric model to estimate the unit cost of each trust, based on its actual volume
Source: Deloitte analysis based on NHSL base line data and additional information provided by London trusts

¹² An analyte is a unit of test measurement. For example, an FBC consists of 16 analytes.

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Figure 2: Reported cost and volume position of London Trusts



There are a number of options for consolidating pathology services to achieve the benefits of scale economies

There are many potential reconfiguration scenarios based on consolidating in different ways urgent and non-urgent secondary care, direct access, specialist and paediatric testing. Further analysis is required to determine the appropriate transition path. A range of scenarios were analysed. The options which offered the best economic model were:

- Scenario 3 - Creation of five pathology clusters with one core laboratory for each. Five core laboratories provide direct access testing, non-urgent testing for secondary care and routine paediatric testing in each cluster. Urgent secondary care work is undertaken in a local laboratory situated in each hospital. Specialist paediatric testing is sent to two paediatric specialist laboratories in London¹³.
- Scenario 4 - Creation of variants on scenario 3. Based on the cluster based model described in Scenario 3, we have developed sensitivity analysis of three, six, eight and nine pathology clusters.

Based on modelling costs over a seven year period across the scenarios, substantial savings are predicted by reconfiguring pathology services. These savings are assumed to accumulate slowly initially but ramp up after two years when activity levels are assumed to have reached their fully reconfigured state and there are no further transitional costs.

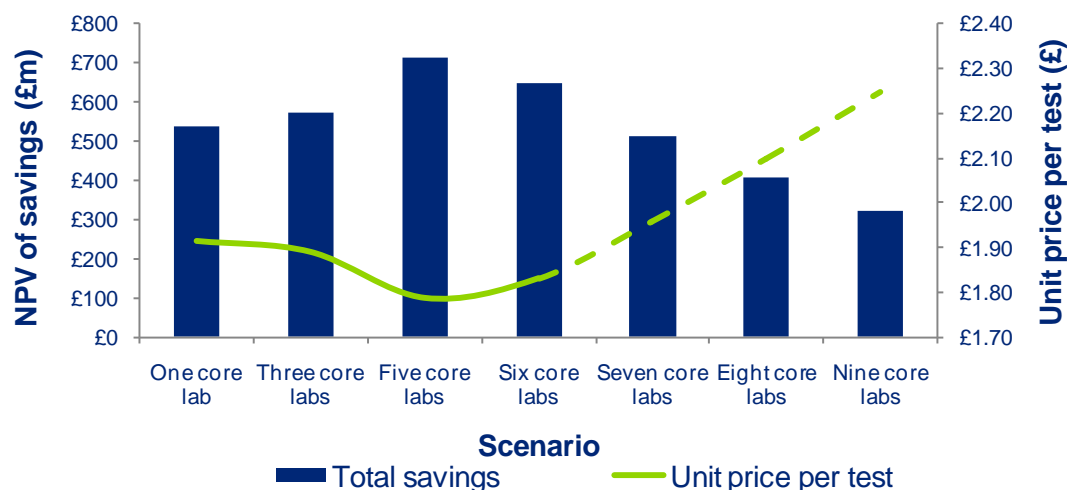
These savings are largest in scenario 3, in which seven years total savings versus the do nothing option are £716million and total savings against do nothing (excluding the effect of duplicate testing) is estimated as around £2,600million over 20 years.

¹³ This is consistent with the children and young peoples report. In the analysis it is assumed that specialist paediatric pathology services are consolidated into two laboratories where the specialist clinical services are being provided whilst routine paediatric services are undertaken alongside adult services in either a local or core laboratory depending upon required turnaround times.

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The savings are found to be largest in scenario 3 as it provides a good balance between economies of scale in the core labs and the corresponding number of local labs, where the reduction in activity increases the cost per test in these labs. In this scenario the volume of tests in the local laboratory is on average one million tests.

Figure 2: Implied unit costs per test and savings (7 years)



Source: Deloitte analysis. Results for seven labs are based on uplifting estimated pay and consumables costs, whilst for greater than seven labs the general trend has been extrapolated.

The estimated savings vary across scenarios as a function of achieving economies of scale, primarily derived from savings in staff, equipment and reagent costs, whilst balancing increasing costs in the smaller local laboratories.

Other savings may be broadly similar across all scenarios. These include those that come from initiatives around demand management, logistics and procurement which can be economically achieved based on more consolidated activity and the investment in latest IT systems and management tools.

To achieve the economies of scale, laboratories are assumed to move towards 24/7 hour working and with sufficient volumes in the core laboratories to smooth peaks and troughs in demand.

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1 Introduction

Pathology services are central to the delivery of high quality, patient centred healthcare in London. At least 70% of clinical decisions are made on the basis of pathology test results, yet we know that pathology could contribute even more to ensure that we get the clinical pathway and treatment right for each individual patient.

The term pathology describes clinically-led diagnostics, laboratory and post mortem services based in NHS Trusts. This includes direct patient care, interpretation and clinical liaison. The services cover a range of tests on blood and other human materials necessary for diagnosis and monitoring a wide range of clinical conditions so that appropriate treatment can be given; and the investigation of the reasons why people may have died and the care of their body if they do so whilst in hospital.¹⁴

The advent of genomics and molecular testing will bring a shift to more preventative medicine and more personalised care, and these developments will place ever greater reliance on pathology services. They will drive improvements in clinical quality and patient safety, and have the potential to save significant service costs. However there is a risk that these improvements will not be achieved without a collaborative London-wide approach to reconfiguration, which involves all appropriate stakeholders.

Based on the evidence collected for the national Carter review of pathology services in England¹⁵, the baseline review of pathology services in London, and the work of the London Clinical Expert panel, it is believed that there is a strong case for change in London pathology services to improve quality, patient safety and efficient use of resources.

There are several excellent examples of collaborative ways of working, both between NHS services and between NHS services and private sector providers which are already delivering improved quality and patient safety and demonstrably better value.

Nationally, there is an expectation that significant savings, in the region of 20%, can be made by consolidating pathology services and so benefiting from economies of scale. Additionally, there is potential to reduce waste and duplication in pathology services, often caused by IT systems which are not well integrated. There has been a significant lack of focus on solving these issues and a lack of investment in IT infrastructure to remedy them.

Provider trusts are faced with an expectation that they can make efficiency improvements of at least 4% per year over the next four years. There is every reason to have confidence that the pathology services will be able to contribute to this requirement, while facilitating significant improvements to the quality and responsiveness of clinical services.

¹⁴ Modernising Pathology Services, DH Best practice Guidance 2004

¹⁵ Report of the second Phase of the Review of Pathology Services in England, Chaired by Lord Carter of Coles 2008

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This report analyses the pathology services provision in London and makes proposals as to how this can be improved. In doing so it covers both routine and specialised pathology services commissioned for London residents or delivered within London Trusts. However, services commissioned by the National Specialised Commissioning Group and forensic pathology are outside the scope of this project.

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2 Background

The Carter report into the provision of pathology services recommended that each Strategic Health Authority (“SHA”) should require the Primary Care Trusts (“PCTs”) (commissioners, now including GP clusters) in its area to take the lead with providers in drawing up cost-effective plans for implementation of the report’s proposals. NHS London (“NHSL”) responded to this by convening a panel of Clinical Experts with a senior responsible officer (“SRO”) and Programme Board to consider the modernisation of pathology in London. This work was supported by economic analysis of the options for service change in London, undertaken by Deloitte.

2.1 Carter Report

In 2008 Lord Carter conducted the second of his reviews into the provision of pathology services in the NHS.

Lord Carter’s key recommendations for are:

- Pathology service providers – and, in future, consolidated networks – should be subject to mandatory accreditation by an organisation independent of the providers and the professions.
- All providers of pathology services (including providers of point-of-care testing) should be required to participate in clinical audit and other clinical governance activities.
- IT connectivity should be put in place for NHS pathology services as a matter of priority.
- Priority should be given to ensuring that pathology services are made more responsive to users’ requirements; and, in particular, that phlebotomy and sample collection services should be made more accessible and convenient.
- Specialist services should be consolidated through referral to specialist testing centres to assure quality and to address professional isolation.
- Pathology clusters should be developed on a hub and spoke model to enable economies of scale to be realised. Each consolidated cluster should have a single integrated management structure, including a clinical director and commercial director, who would provide clear leadership and accountability.
- Based on guidance and support from the Department of Health, each SHA should require the PCTs in its area to take the lead with providers (existing and, where known, potential) in drawing up cost-effective plans for implementation of this report’s proposals.

2.2 London Clinical Expert Panel

In the spirit of a clinically driven service review, NHSL appointed a Pathology Clinical Expert panel (Appendix 1 – Terms of reference and membership) to review Carter’s recommendations for the reconfiguration of pathology services within London. The

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panel agreed that pathology services across London would benefit from being consolidated on a cluster model to strengthen service quality, ensure service quality assurance, improve patient safety and deliver better value for money. The cluster should be a managed one, operating in an agreed equitable way to provide the right balance of economies of scale and appropriate access to services. To ensure that collaboration is achieved, savings at a system level will need to be shared through an agreed mechanism, ensuring that local hospital laboratories do not bare the brunt of rising costs from the loss of non-urgent secondary care, and direct access testing. It is also essential, that GP direct access work remains within the cluster arrangement, for the economies of scale and the full potential of savings to be made. It is important to note that there are a number of improvements that could be implemented in each laboratory ahead of any reconfiguration, to strengthen service quality, ensure service quality assurance and improve patient safety.

The Royal College of Pathologists¹⁶ also accepted the main conclusion of Lord Carter's report into NHS pathology services, that reorganisation and consolidation of pathology services has the potential to deliver efficiency savings.

2.3 Current Pathology Services in London

London has 27 trusts almost all of which receives the bulk of their pathology services from their own laboratories.

In addition there are a small number of commercial providers, one public and private sector joint venture and some local SLA arrangements covering both routine high volumes testing and specialised testing.

All the hospital laboratories provide a similar range of routine tests, and while there is some consolidation of specialised tests in the teaching and specialised hospital sites most laboratories deliver a more generalist service.

The overall cost of pathology services in London 2009/10 was £537million.

A baseline review of pathology tests was undertaken in 2010¹⁷, which established that a total of 139 million tests were performed in London in 2009/10, this represented an increase of 25 million tests (18%) against the 2006/7 baseline of 115million. This represented a year-on-year increase in the number of tests of 6%.

The greatest single percentage increase was in high volume biochemistry testing (26%). It is interesting to note that the increase in the number of tests ordered by Trusts increased by 12% over the period, but the numbers ordered by GP increased by 43%, well in excess of the underlying increase in acute activity.

¹⁶ Royal College of Pathologists newsletter July 2010 -

http://www.rcpath.org/resources/pdf/reconfiguration_of_nhs_pathology_services

¹⁷ All but one of the 27 Trusts in the NHS London region provided information to the London baseline reviews undertaken in 2010.

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3 Proposal for Modernising Pathology Services in London

At the heart of the national pathology work stream is the restructuring of pathology services into cluster models to improve both quality and efficiency of provision of service.

Carter recommended that the consolidation should be undertaken in a Network, cluster model comprising core and local sites, with each local laboratory being based on the local hospital site to support the hospital 24 hour pathology needs.

3.1 Main Proposal

The recommendation of the Clinical Expert Panel and the Programme Board (Appendix 2) is that pathology services in London should be restructured in line with Carter, into clusters of services, the optimum based on one core laboratory for each cluster, with local laboratories in each acute hospital

In addition the Clinical Expert Panel made a series of recommendations to improve the quality, consistency, value for money and responsiveness of London pathology services. Several of these recommendations can be implemented in advance of structural change.

3.2 Recommendations

3.2.1 Structural Recommendations

Recommendation1 - Core laboratories

The core laboratory is assumed to support all direct access work, and other non-urgent pathology demand not processed in the local laboratories¹⁸. Estimating the potential demand for a core laboratory in London based on current levels of activity, one scenario could see demand of around 20,000,000 profiles per annum¹⁹. This demand would be split across the disciplines as outlined in Table 1.

Table 1: Activity in a Core laboratory

Discipline	% to core lab
Biochemistry	70%
BT Tests	70%
Gynae Cytology	100%
Haematology	70%
Histopathology	80%
Immunology	99%
Microbiology	99%
Non Gynae Cytology	100%

¹⁸ This will be primarily outpatient work.

¹⁹ It should be noted that there are multiple demand scenarios for a core laboratory in London. This scenario was developed by estimating at a high level demand assuming only a number of core laboratories in London and future demand growth

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Source: Assumptions based on discussions with stakeholders. The histology volumes include routine tests which are processed offsite but cut-up and examined in the local lab.

This generic core model includes large volumes of automated testing in biochemistry, haematology and microbiology. Routine processing of histology samples is also undertaken in the core laboratory as well as some cytology and immunology services. Haemophilia is a specialist disorder and as such all related pathology tests should be carried out in a specialist laboratory.

Although infection control management is fundamental to every hospital and governed by specific standards, and relevant to accreditation of sites, tests relating to infection control work can be carried out in core laboratories and need not be limited to a local hospital laboratory²⁰. This model, however, could only be supported, with the assurance, through a comprehensive service level agreement between laboratories, of accurate and timely results and robust logistics in relation to sample transportation, providing well ordered specimen reception with the ability to trace and track samples.

It is important to remember that doctors often begin to treat patients when they suspect a diagnosis, prior to the results of tests being received or even before ordering, e.g. meningitis in children.

Recommendation 2 – Local laboratories in each acute hospital

The local laboratory is assumed to support primarily local acute work required in a fast turnaround time (“TAT”). All direct access work, and other non-urgent acute sector pathology demand would be directed to the core laboratory. Specialist adult work would continue to be sent to those laboratories that focussed on providing specialist tests, although these are expected to consolidate to a smaller number, whilst specialist paediatric work would be sent to one of two specialist paediatric hubs. The local laboratory for a medium to large sized ‘general district hospital (“DGH”) could be expected to provide 400,000 profiles per annum, or around a million analytes²¹. It is important that the work of these local laboratories is protected as this 24 hour urgent work is vital to the working of the hospitals they are attached to. The table below shows the level of activity that might remain in the local laboratory of a medium sized DGH. This is the level of activity which is used to construct a representative local laboratory.

²⁰ Although for improved TATs the development in NAAT (Molecular diagnostic tests based on nucleic acid amplification technologies) microbiology testing should be investigated.

²¹ Based on discussions with stakeholders. A profile is a set of tests that can be performed on one sample whereas an analyte is a single test.

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Table 2: Activity in a local laboratory – number of profiles

Discipline	Annual	Weekly
Biochemistry	234,000	4,500
Haematology – Coagulation	18,900	363
Haematology - Routine	106,650	2,051
Haematology - Blood Transfusion	9,450	182
Microbiology	1,500	29
Histology	45,000	865
Total	415, 500	7,990

Source: Assumptions based on discussions with stakeholders. For histology, all volumes are counted although routine tests are analysed offsite.

This reference model retains some biochemistry and haematology tests in the local laboratory, whilst for microbiology only cerebrospinal fluid analysis (“CSFs”) is undertaken on site. However, when reconfiguring services it will be important to take into account the introduction of NAAT testing (Molecular diagnostic tests based on nucleic acid amplification technologies) in microbiology, and the potential for an introduction of PCRs (Polymerase Chain Reaction – amplification of DNA) that would allow 24 hour TATs.

The model for histology is slightly more complex and assumes that both gross cut-up and consultant examination of slides would remain at the local laboratory site, alongside fine-needle aspiration (“FNAs”) and frozen sections.²² Routine processing of histology specimens though would be undertaken at the core laboratory, where greater automation could be taken advantage of. This process is considered appropriate given concerns around moving samples prior to gross cut-up. The NHS Improvement Team has worked with a number of pathology teams, to use Lean methodologies, to establish a seven day turnaround for histopathology results (Appendix 3), key to early diagnosis and improvements in outcomes for patients. It is fundamental though, wherever ‘cuts up’ occur that the MDT is fully supported in its work and that the relevant consultants are able to provide expert input when required to do so, whether in person or through video-conferencing or telepathology²³

Immunology, serology, haemophilia and cytology testing is assumed not to be undertaken in this local laboratory. Dependent on the particular pathways to be supported in a hospital, it may be appropriate for some of these services to be provided in the local hospital laboratories. Although in general it is likely that immunology services will be provided by the core laboratory; consistent with TAT standards developed for London.²⁴

²² FNAs and frozen sections are relatively low volume and usually are required within a fast TAT. See for example: NHSL. 2010/11. *Laboratory Turn Around Times*.

²³ Telepathology is the electronic transmission of pathological images, usually derived from microscopes, from one location to another, for the purpose of interpretation and diagnosis

²⁴ NHSL 2010/11. *Laboratory Turn Around Times*.

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Recommendation 3 - Specialist laboratories

Specialist laboratories should be seen in parallel to a core and local cluster configuration, and these should be supported with sufficient throughput and skill mix to provide an uninterrupted diagnostic service, although some particularly very rare testing should be consolidated into fewer sites, supporting consistency of results and economies of scale. A range of specialist services should be provided in properly accredited laboratories; and such centres, having the facilities and expertise, could absorb from other trusts the wider range of established 'non-specialist' molecular testing. However, specialist services need not be consolidated in the core laboratory of each cluster but at a specialist centre within the cluster working in a networked fashion, utilising existing resources. This consolidation of services should result in lower costs, more reliable results and optimise development opportunities. It is important that the business case for each cluster provides a fair economic solution for the cluster of laboratories, building in the costs of, management and robust logistics, including transport and IT, and governance.

The strategy for consolidation should include concentration of the multidisciplinary expertise which facilitates clinical research and development - the specialised diagnostic laboratory should be situated at a principal locus of relevant clinical and research activity. The number of centres will vary with specialty, but existing large-scale laboratories with proven records of contribution to R & D should be retained and expanded.

It is important that specialised services laboratories have sufficient volume of tests, to ensure high quality interpretation of tests. They should be well staffed, robust in procedures and protocols to be able to provide a viable service with back up during staff absence. There needs to be a strong link to R&D, to maintain the specialised service and to support mainstreaming of new tests

Some of the more specialised (rather than super-specialised) tests might logically be concentrated in the Academic Health Science Centres or other large centres with sufficient critical mass. This would also address the issue of small numbers of specialised tests being done, often as send aways, with problems of accreditation, validation, expertise and cost.

Recommendation 4- Paediatric services

The Paediatric Expert Panel (PEP) (Appendix 3) was set up to look specifically at the reconfiguration of paediatric pathology services in London. They recommended that specialist²⁵ paediatric pathology work should be rationalised and provided in 2 Hubs, one in north and one in south London, linked to the clinical proposals for services in the Children and Young Peoples Report²⁶. Other paediatric work should follow the same cluster model routes as for adult work.

²⁵ The definition of specialised service being any patient who has tertiary care requirements.

²⁶ Children's and Young People's Project, London's specialised Children's Services: Guide for commissioners 2010

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Standard reference ranges and sampling protocols for children's pathology is important and would be especially valuable for neonatal intensive care units ("NICUs"), giving transferable results. Unfortunately, currently the National Laboratory Medicine Catalogue (NLMC)²⁷ and Harmonisation project²⁸ (see section below) does not extend to children's pathology.

GPs do not currently offer phlebotomy services for children. Children usually go to local hospitals (A&E) / paediatric day hospital for bleeding. The panel recommended that there should be easier access to phlebotomy for paediatric patients with specialised paediatric phlebotomy available in each borough, perhaps through a Paediatric Phlebotomy Mobile Team.

It was noted by the panel that within paediatric pathology there is and will continue to be a rise in demand for pathology service. This is caused by innovations in medicine, as more diseases/abnormalities are identified and particularly in genetics, with high throughput sequencing, e.g. newborn screening in UK - (currently screen 5 tests, in other countries it is 40) and biomarker tests.

Recommendation 5- Care closer to home

Patients frequently report in local surveys, and reported to the Carter review team, that access to phlebotomy is inconvenient. In the worst cases, people need to take time off work to have blood taken, and endure long queues at central phlebotomy locations. There is potential for phlebotomy to be delivered in much more accessible locations and at more convenient times. Phlebotomy for children is cited by patients as a particular problem, often only available at hospital sites.

Patients value the convenience and rapid reporting of point of care testing equipment (POCT) in the community, although noted by the CEP that this method of testing whilst convenient is also costly and it is important that machines comply with the MHRA code²⁹ of quality control and that they are managed at all times by a CPA accredited laboratory service. There is concern that the use of screening POCT machines has increased the incorrect diagnosis of some long-term conditions, by 2-3%, e.g. diabetes. The CEP advise that such diagnosis should be confirmed by traditional testing methods before treatment commences.

Patients generally have to wait several days before they are given the results of direct access tests by their GP practice, with the introduction of improved 24 hour TATs **this delay could not be attributed to lack of test results**. As indicated previously laboratories are beginning to offer web based reporting direct to patients- with reference ranges and guidance on the results. This is very much in the White Papers³⁰ direction of travel- "No decision about me without me". Even this may soon be superseded by patients expecting to be able to receive results directly to their web enabled phone.

There is strong evidence of the acceptability of home testing- for example pregnancy testing, blood glucose levels, anticoagulant testing, and send away packs for bowel

²⁷ National Laboratory Medicine Catalogue <http://www.connectingforhealth.nhs.uk/systemsandservices/pathology/projects/nlmc>

²⁸ Harmonisation project : <http://www.pathologyharmony.co.uk>

²⁹ MHRA Device Bulletin Management and Use of IVD Point of Care Test Devices DB2010(02) February 2010

³⁰ NHS July 2010 - Equity and Excellence : Liberating the NHS

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cancer screening and Chlamydia tests. These save the patient time and effort, and the cost of travelling to hospital or the GP practice, and put the management of their health in their control. This review of pathology recommends that there should be improved access to pathology testing close to, or within, the patients' home. There must however be a balance between convenience and affordability.

By linking together testing undertaken in all settings of care, including the patients' homes, and moving testing closer to home, the patient experience of this part of the patient pathway can be improved.

There are also opportunities for the laboratory to use technology that assists them in the monitoring of long term conditions through direct interaction with patients, as indicated previously, so removing unnecessary steps that may be of limited clinical value. However, commissioners (e.g. PCTs/GP consortia) need to maintain the integrity of local care pathways.

In the drive to provide a more responsive service certain laboratories will run 24 hour shift patterns, obtaining results out of hours. Where these are abnormal it is important that the patient is notified to access healthcare as soon as possible. The Royal College of Pathologists has made recommendations endorsed by the CEP to report this via the local GP deputising service.³¹

3.2.2 Quality service recommendations

Recommendation 6 - Research and development (Appendix 4)

Consolidating pathology R&D in line with laboratory services would improve standardisation and dissemination of output of academics of proven new techniques and tests into services, although it is noted that some of the smaller sites will continue to contribute to R&D in a cluster model.

It is important to ensure that both, 'Defined research' and 'Translational research' will continue to thrive in London. With its high concentration of academic centres with some supporting specialist diagnostic laboratories, it is important that these are accredited, and supported and have sufficient throughput and skill mix to provide an uninterrupted diagnostic service. These specialist laboratories should be seen in parallel to a core and local cluster configuration, although some particularly very rare testing should be consolidated into fewer sites, supporting consistency of results and economies of scale.

A range of specialist services should be provided in properly accredited regional laboratories; and such centres, having the facilities and expertise, could absorb from other trusts the wider range of established 'non-specialist' molecular testing. This consolidation of services should result in lower costs, more reliable results and optimise development opportunities, e.g. in molecular genetics

The strategy for consolidation should include concentration of the multidisciplinary expertise which facilitates clinical research and development. The specialised diagnostic laboratory should be situated at a principal locus of relevant clinical and

³¹ RC Pathologists: Out-of-hours reporting of laboratory results requiring urgent clinical action to primary G025 November 2010

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research activity. The number of centres will vary with specialty, but existing large-scale laboratories with proven records of contribution to R&D should be retained and expanded.

Some of the more specialised (rather than super-specialised) tests might logically be concentrated in the Academic Health Science Centres, or other large centres, within London, with the ultra specialist tests (nationwide) remaining where they are. This would also address the issue of small numbers of specialised tests being done with problems of accreditation, validation, expertise and cost.

Recommendation 7 - Teaching and training

NHS London has already embarked upon a process of commissioning for education and training in London with the intention of driving up the quality of training by contestability. The CEP would recommend that the Commission for Medical Training and Education take into account the service redesign in London to ensure comprehensive curriculum delivery and programme design and delivery, by contracted lead providers. It is important to emphasise the need to ensure training and continued professional development to ensure robust succession planning.

Recommendation 8 - Lean

The CEP recognised that 'Lean' is an important tool in the modernisation of pathology services, improving safety within laboratories and improving quality, quality assurance and productivity and therefore 'value for money'. It is recommended that each service implement lean processes within their laboratories, particularly when reconfiguring services.

The case for using Lean was recognised by the Carter review³². "Lean" is a management methodology that considers expending resources on anything other than those steps specifically required to achieve the aim, to be wasteful and therefore a target for elimination. The Lean methodology was devised in the manufacturing sector but spread to many applications including, in recent years, the provision of healthcare services. This methodology is now being applied in many pathology departments in the UK. Supported by the DH Pathology Modernisation Programme, the NHS Improvement – Diagnostic Service Improvement team have been piloting Lean methodology with a number of departments³³. Following the Department of Health's response to the Carter Report (2008), a three-year programme of service improvement in pathology was planned in partnership with NHS Improvement. In terms of pathology, NHS Improvement has had notable successes, particularly in reducing turnaround times to improve efficiency and quality in Cytology.

Over the past 12 months, NHS Improvement has been working with nine pilot sites to test the use of Lean methodology in delivering effective, streamlined

³² Report of the second Phase of the Review of Pathology Services in England, Chaired by Lord Coles Of Carter 2008

³³ <http://www.improvement.nhs.uk/diagnostics/documents/NHS%20Lean%20p6-7.pdf>

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Histopathology services. These services are integral to cancer pathways and one of the aims was to support the delivery of the Cancer Reform Strategy (2007).³⁴

Recommendation 9 - IT and Order communications (order comms)

The core and local cluster of pathology laboratories requires a high level of interoperability to support both primary and secondary uses of pathology. Robust logistics and IM&T are therefore fundamental to successful implementation of any networked service, providing well ordered specimen reception with the ability to, trace and track samples and provide accurate and timely results that can be relied on.

It is therefore imperative that any cluster reconfiguration has at its heart mandated order communications (the mechanism for interaction between electronic requesting and reporting systems) between GPs and Trusts, and IT links within Trusts and between Trusts. The needs for IT will inevitably follow the pattern of services provided within the cluster and can provide opportunities to create information flows to support the work of clinical networks and MDTs, e.g. cancer MDTs and Histopathology input. So clinicians, including GPs can access the results of tests whether requested by them or not. Improved turnaround times and results being reported via IT and the use of videoconferencing, telemedicine and telepathology³⁵; (Appendix 7) testing need not be done on each individual site for high quality care to be achieved.

Providing order comms between those requesting tests, whether they be GPs and other community clinicians or hospital clinicians and the laboratories. Order comms not only immediately removes a step in the pathology process, by negating the need for staff to manually transpose the orders but also reduces errors in transposing, thereby immediately increasing productivity and quality. It is essential to reduce the numbers of inappropriate tests being ordered.

Recommendation 10 - Demand management

Order comms systems can support demand management. Clinical audit in some hospitals has demonstrated that clinicians (junior doctors) sometimes, over order tests and the introduction of symptom based order profiles can support them to reduce this. For example, order profiles used in King's College Hospital NHS Foundation Trust Accident and Emergency Department (A&E) are included in a separately. These profiles, were initially introduced to make more efficient use of laboratory services by A&E, driven by the need to meet waiting time targets, rather than reduce test requesting. The benefit was therefore to the hospital as a whole and in particular the patient, as add-on test requesting, reduced by 70% i.e. different clinicians calling the laboratory to add on another test because they forgot to do it

³⁴ DH Pathology programme Newsletter Autumn 2010. NHS Gateway Reference: 14992

³⁵ <http://www.ncbi.nlm.nih.gov/pubmed/19552937> Overview of telepathology, virtual microscopy, and whole slide imaging: prospects for the future. *Hum Pathol*. 2009 Aug; 40(8):1057-69. Epub 2009 Jun 24,

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the first time. This increases cost to the service as the add-on has to be manually retrieved, requested and sample re-run.

The Royal College of Pathologists is in discussions with the General Medical Council (GMC) to look at both the undergraduate and post graduate medical training of doctors in the use of pathology to attempt to install more uniformity and transparency in its use.

Order comms systems can also restrict the frequency of repeat tests, e.g. Barts and The London NHS Trust has set new timeframes for when a Clinical Biochemistry and Haematology test can be repeated.

To assist hospitals to tackle over-ordering; the CEP has developed a list of the top ten test tests requested which the CEP consider would best be supported by a profile approach.

Recommendation 11 - Logistics

In a networked cluster model, robust logistics is of fundamental importance, underpinning the ability to provide a quality and responsive service. The service level agreement between parties should be comprehensive with agreed standards for; sample collection and delivery between sites, with the ability to track and trace specimens at all times and timely and accurate reporting of results within stated turnaround times. The cluster should ensure that all sites have streamlined specimen receptions and that transportation of samples is done in a timely and safe manner ensuring that samples do not degrade.

Recommendation 12 - Turnaround times

As an aid to development of the cluster model the CEP have reviewed a number of service specifications of pathology services and agreed that the East of England specification (Kent and Medway) provided the most appropriate. However, it was felt that the turnaround times in this service specification did not reflect the speed of turnaround which could be achieved in London's automated laboratories.

Therefore the Paediatric Expert Panel (PEP) (Appendix 3) and the Adult Clinical Working Group (ACWG) (Appendix 5) developed a set of proposed London-wide turnaround times which would deliver a 24 hour response in the majority of pathology specialities.

TATs are an indicator of quality, a minimum standard that departments should meet in the provision of their service, part of the CPA accreditation process. They can be used to monitor services, providing objective evidence of performance. Extended turnaround times should be deemed a malfunction of the service requiring urgent investigation. Prompt pathology turnaround times support high quality care, rapid diagnosis, reduction in bed days with quick diagnosis leading to accurate treatment, avoiding waits in beds for test results and rapid monitoring of clinical condition in hospital. The turnaround times for GP direct access work it was agreed should be a maximum of 24 hours (except microbiology), thus providing better and more appropriately management of general minor ailments and early detection of issues that may need further investigation. This also allows for better self or timelier GP management for some long-term conditions. Some laboratories are also beginning to

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offer web based reporting direct to patients, with reference ranges and guidance for results, for self management.

Recommendation 13 - Standardisation

Standardising procedures within clusters and across London can greatly improve quality, quality assurance, safety and cost effectiveness. The cluster approach to reconfiguration of pathology laboratories requires a high level of interoperability (IT connection) between both primary and secondary users of pathology services. This interoperability requires standardisation not only of names and codes of analytes, units of measurement, rules around data combination, but also patient identification (based on 'traced' NHS number). The CEP advise that these issues are addressed by uptake of the revised Pathology Bounded Code List (PBCL)³⁶ which links analyte names to units of measurement and suitability for combination of data from diverse sources. This will be available for use later this year. Over time this will be replaced by the National Laboratory Medicine Catalogue (NLMC), which will cover the requesting and reporting of pathology in all disciplines, as well as the removal of obsolete embedded tests, providing consistency across hospitals and settings of care). It will be the first comprehensive, standardised pathology test request catalogue validated for use across the entire NHS to support the delivery of electronic order communications. The NLMC is a key enabler for modernising pathology services, where lack of effective electronic order communications and related decision support seen as barriers to service modernisation and change.

It will both speed the search for requests and introduce a layer of consistency that will reduce the risk of requesting errors and improve quality assurance. Alongside this there runs The Pathology Harmony project, which has identified harmonisable analytes and made recommendations on units of measurement to be used in reporting results.

Recommendation 14 - Accreditation

The CEP also recommends that, in a drive to improve quality in pathology, all laboratories should be accredited by the Clinical Pathology Accreditation (UK) Ltd (CPA), now part of United Kingdom Accreditation Service (UKAS). It is felt, appropriate though, that CPA should have flexible levels of accreditation to recognise the difference between core and local laboratories.

It is essential also that clinicians and laboratories, partake in the relevant quality assurance programme as recommended by the United Kingdom National External Quality Assessment Service (NEQAS).

Standards should be also be implemented for the tracking of sampling, particularly important with more samples being transported from site to site.

Recommendation 15 - Responsive services

³⁶ Pathology Bounded Code List: <http://www.connectingforhealth.nhs.uk/systemsandservices/pathology/edifact/technical/standards/bounded>

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Carter recommended and the CEP agrees that pathology service should be made more responsive to users' requirements; and in particular that phlebotomy and other sample collections services should be made more accessible and convenient to service users. The increasing use of point-of care testing shows that pathology is moving towards more community based services. This is consistent with the London clusters' strategic intentions to on³⁷ provide care closer to home. Responsiveness also means taking into account the specific needs of the population generally and specifically where some demographic groups have specific needs which could impact on pathology services. For example, some Mediterranean and African ethnic groups have a high prevalence of inherited blood disorders. Populations with a high proportion of older people will need more access to cancer diagnostic services. However, the view of the CEP panel is that these conditions do not require fast (under two hours) turnaround times testing. Even in the case of an individual in sickle cell crisis, treatment will be started without waiting for confirmatory blood testing. While high quality pathology service provision must be in place for the management of diagnoses which disproportionately affect specific demographic groups, this does not require the services to be located with the populations served.

In order to gain greater insight into the priorities of users of pathology services; NHSL met with an invited Pathology Clinical User Group, (Appendix 6) and placed a questionnaire for GPs to complete in the weekly NHSL GP Cluster Newsletter and also forwarded it to PCT communication leads for onward distribution.

The Pathology Clinical User Group, made up of non-pathologist clinicians highlighted some important issues. They agreed with the CEP, that good IT connections were important and that they could play an important role in demand management. Reduction in duplication of tests could be achieved if tests done by GP were sent by the referring GPs, avoiding patients being re-bled. This also applies to tests carried out in acute trusts, having to be repeated by tertiary centres. As well as good IT links, good logistics i.e. transport between sites is considered vital. Having tests done in a core laboratory is acceptable if the degradation of samples is avoided, for this the timings of pickups/deliveries of samples are crucial. As with the CEP the meeting believed that laboratory staff and clinical staff with specialist experience and knowledge should be placed in laboratories which do the majority of specialist work, to maintain clinical expertise and provide cross cover.

The GP questionnaire results, when analysed although completed by a small number of respondents, are in keeping with general discussions had with GPs and the emerging GP clusters. They include that although monetary considerations are important, the quality and availability of results are considered of paramount importance.

- **90%** of respondents deemed that having all patient results electronically available to GPs through single access point regardless of requestor was **very important** and with 10% deeming them **important**:

³⁷ Lord Darzi's report Health Care for London: A framework for Action

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- **80%** of respondents deemed accessible and convenient sampling centres in the community as *very important*, with 20% deeming it *of slight importance*.
- **70%** of respondents deemed guaranteed sample collection times throughout the day, maintaining sample integrity as *very important* with 30% deeming it *important*
- **All respondents** deemed that the reduction in unit cost of tests - was either *very important* (50%) or *important* (50%)

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4 Summary of recommendations

4.1 Structural Changes

Recommendation 1 - Core laboratories

Recommendation 2 - Local laboratories in each acute hospital

Recommendation 3 - Specialist laboratories

Recommendation 4 - Paediatric Services

Recommendation 5 - Care Closer to Home

4.2 Clinical Improvement and Responsiveness

Recommendation 6 - Research and Development (R&D)

Recommendation 7 - Teaching and Training

Recommendation 8 - Lean

Recommendation 9 - Order communications

Recommendation 10 - Demand management

Recommendation 11 - Logistics

Recommendation 12 - Turnaround times

Recommendation 13 - Standardisation

Recommendation 14 - Accreditation

Recommendation 15 - Responsive Services

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5 Workforce (Appendix 7)

The Carter³⁸ report identified the need to reform the pathology workforce to further enhance the provision of high quality; efficient and effective services. The issues identified are being addressed nationally through the Modernising Scientific Careers (“MSC”) initiative led by Professor Sue Hill the DH Chief Scientific Officer and through the work of a DH / Royal College of Pathologists Task Force. NHS London has been fully engaged with the initiative and is committed to implementing the national framework where it meets the needs of London service providers. (Appendix 7)

Within London a specific pathology workforce workshop was organised to understand the current pathology workforce profile, the future requirements and how MSC could address the problems identified by Lord Carter in a London setting. Within the workshop it was acknowledged that the grade mix of existing staffing may be top heavy, reflecting the large number of laboratories each with a full management structure. In London overall 25% of staff, excluding consultants and junior doctors, are at AFC grade 6 or above. The skill mix of the pathology workforce, however, through some consolidation and increased automation has already changed. Over the period August 2009 to October 2010 there has been a shift towards lower banded staff, with bands 3 & 4 seeing the largest increases in workforce and with a reduction in the number of staff over this period at bands 8a, 8b and 8d although the number of band 9 staff and medical staff has increased slightly over this time. Concern was expressed though, of a lack of joined – up thinking between numbers of scientists and medical staff being trained and those required.

Discussions around pathology service reconfiguration and potential commercial partnerships have created a dynamically evolving agenda, with significant implications for the pathology workforce and future workforce planning. Examples already exist within London of consolidation of services and successful joint working with other NHS laboratories and private partners. It is essential in any such collaboration that a robust provision of training and development for all staff can be assured and that note is taken of the need for succession planning

It is agreed that with reconfiguration, and automation and the move to care closer to home that changes to staff training must expand the ability of staff working at bands 3 and 4 to work as extended scope practitioners. This will support the delivery of point of care testing in primary and community care settings, and enable appropriate and flexible staffing of small local hospital laboratories.

It is acknowledged that with consolidation of services re-profiling of pathology scientific jobs and Careers need to reflect a cluster model and should be seen alongside any lean processes instituted.

A prototype new pathology re-profiling workforce tool ‘A guide to re-profiling health care science workforce’³⁹ is under test by the MSC early adopter sites and will be

³⁸ Report of the second Phase of the Review of Pathology Services in England, Chaired by Lord Coles Of Carter 2008

³⁹ A tool for re-profiling Health care science workforce’ – available on Early Adopters website. ‘How to guide’ yet to be published.

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rolled out in April 2011. This is developed from work done at nine of the early adopter sites, where processes, activities and tasks for the staff in each pathology department were mapped, including biochemistry, haematology, microbiology and histopathology, and re-profiled. The results showed potential saving.

Although scientific staff may consolidate on core sites it is envisaged that medical staff will remain attached to their local hospital

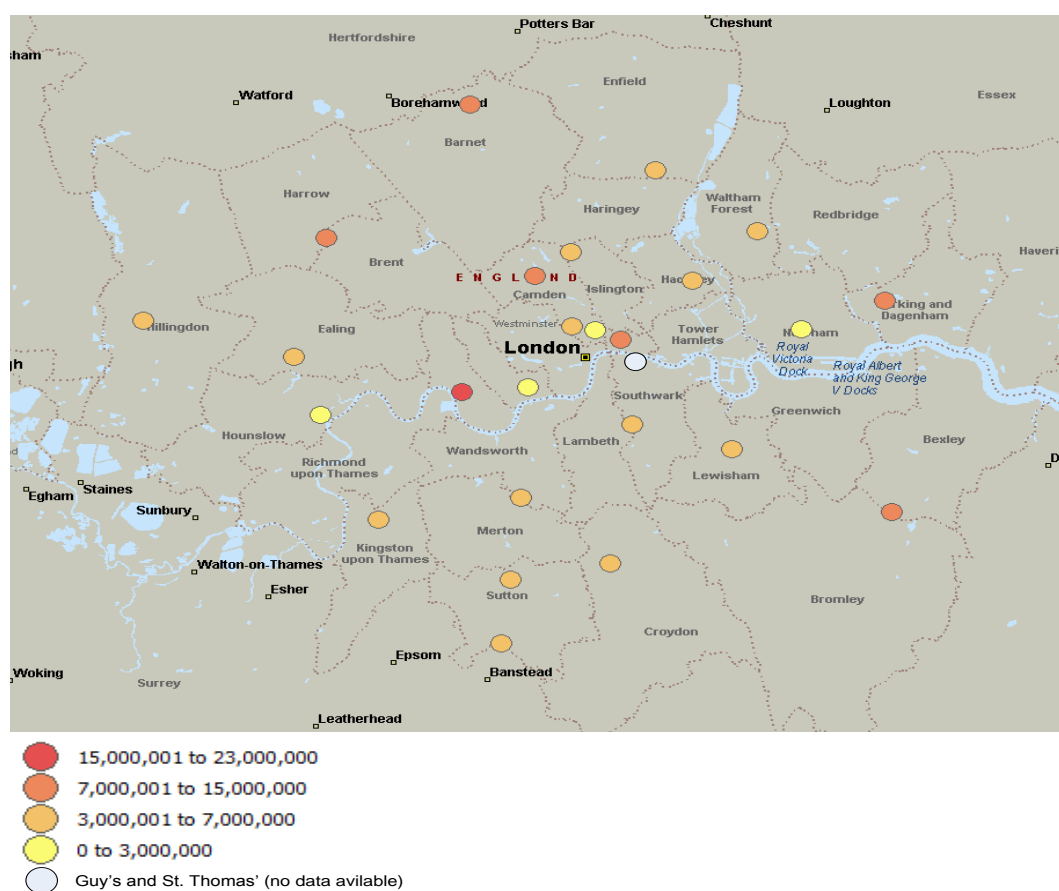
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6 Economic Analysis and Modelling

Economic modelling was undertaken for NHS London by DeloitteExtract from Deloitte report to NHS London- Modernising Pathology

There are currently 27 NHS laboratory operations across London, each providing between one million and 20 million tests per annum⁴⁰. The location of these operations is shown on the following figure.

Figure 3: Location and size of NHS laboratories



Source: NHSL baseline data 2009/2010 and Deloitte analysis. Guy's and St Thomas' are included on this map but without volumes as 2009/10 baseline data was not available.

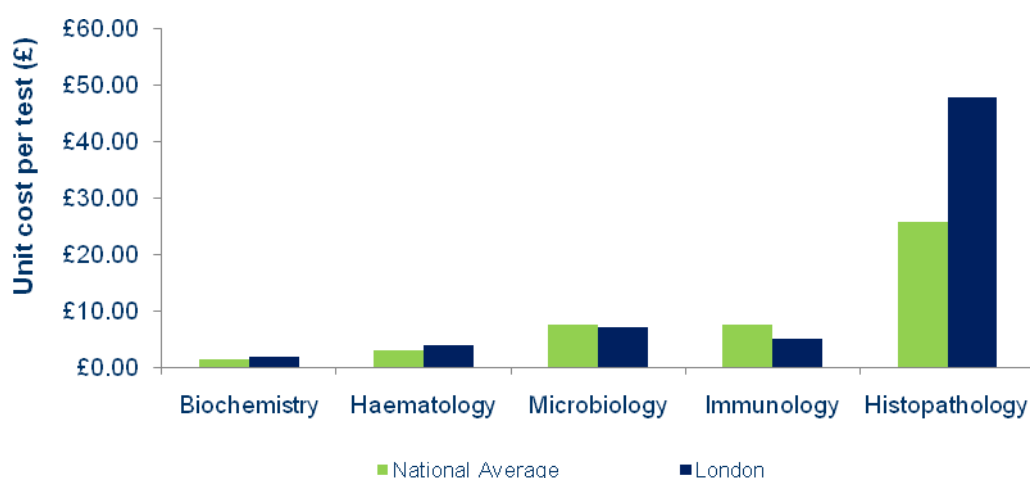
It is estimated that there is excess capacity in many laboratories in London and, on average, laboratories could increase testing by 10% to 30%, and in so doing only incur relatively small marginal costs, principally reagents. By employing more staff and extending operating hours, there is the potential to further increase capacity. In the newer more modern laboratories test volumes could be doubled or trebled without incurring significant additional fixed costs.

⁴⁰ This is based on data requests returned to us by Trusts. It is calculated based on the number of NHS Trusts and may exclude smaller, local laboratories. It also excludes HPA and NHS BT laboratories.

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The investment in excess capacity in London has increased the cost of providing pathology services in London. Costs are further increased by higher levels of specialist testing, the high cost area supplement and apparent grade inflation amongst the pathology workforce in London. This is borne out in the unit cost benchmarking which shows that London is relatively more expensive for histopathology, biochemistry and haematology⁴¹ However; London has slightly lower unit costs for immunology and microbiology, although the volume of these tests is lower than those for which London is relatively more expensive.

Figure 4: Unit cost benchmarks



Source: Deloitte analysis based on baseline NHSL data and interviews with trusts

The pathology modernisation agenda in London is being driven by both the need to make financial cost savings and the continuing drive for high quality and innovative pathology services to support other initiatives. For example:

- The national agenda for the reconfiguration of pathology services is in part a response to the Quality, Innovation, Productivity and Prevention (“QIPP”) agenda. London is required to meet a QIPP target of £50m by 2014/15, which represents 11% of the current cost of pathology. There is additionally the need to undertake a predicted 26% increase in activity by 2014/15 within a constant NHS budget. Our analysis shows that this target is achievable under a number of reconfiguration options.
- Previous reviews by Lord Carter and the view that specialist services should also only be provided in a limited number of trusts support the rationalisation of pathology services from both a cost saving and patient outcome perspective.

⁴¹ The reason for the higher London unit cost of histopathology requires further investigation. However, early indications are that this is due to higher volumes of the more expensive (labour intensive) tests being undertaken in London combined with London laboratories allocating more of their time to histopathology testing which in turn leads to a greater proportion of overheads being allocated in our economic modelling

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- There are other DH and NHS initiatives that relate to pathology. For example the Children and Young People's report notes that specialist paediatric pathology should be provided alongside other paediatric services and could be consolidated to two core laboratories⁴².

Compared to other regions in the UK, London's market for pathology services has a broader range of both public and private providers.

There is significant opportunity for improving pathology services in London

Bottom-up activity costing models of a local and core laboratory indicate that substantial savings could be achieved from the consolidation of pathology services. These models provide an initial specification of the laboratory, staff and equipment required in a modern, efficient laboratory. The models suggest that a local laboratory operating efficiently should service around one million analytes per annum⁴³.

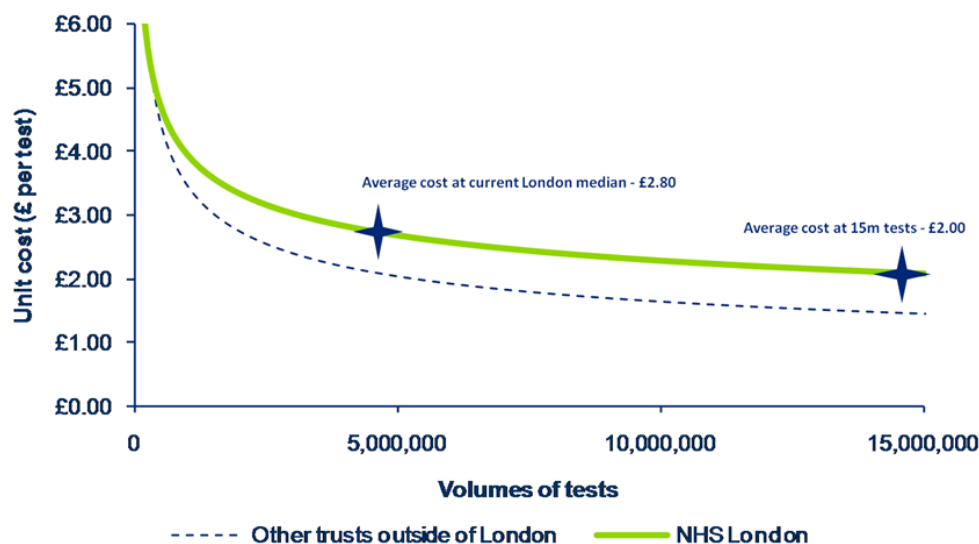
The data provided to us by London trusts' supports the results of the bottom-up models - and confirms Lord Carter's findings – by showing, that average costs per test are reduced as volumes are increased. This implies that there are economies of scale in the provision of pathology services. As illustrated in the following figure, moving from the median sized laboratory currently in London to a core laboratory servicing 15m tests per annum could reduce the average cost of each test from around £3 to £2.

⁴² In relation to paediatric specialist service see for example: "Children's and young people's project, London's specialised children's services: Guide for commissioners 2010". This report notes that in the UK all paediatric services are treated as specialist, however only some of these services are considered to be specialised and it is these specialised paediatric services that need to be considered separately to adult services

⁴³ An analyte is a unit of test measurement. For example, an FBC consists of 16 analytes.

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Figure 5: Relationship between volumes and costs



Source: Deloitte analysis based on NHSL base line data and additional information provided by London trusts

There are a number of options for consolidating pathology services to achieve the benefits of scale economies

There are many potential reconfiguration scenarios based on consolidating in different ways urgent and non-urgent secondary care, direct access, specialist and paediatric testing. We have focussed on four key scenarios. However we recognise that there are other scenarios that might also generate significant cost savings and clinical benefits. Further analysis is required to determine the appropriate transition path.

- Scenario 1 Do nothing. There is no further consolidation or reduction in the number of laboratories.
- Scenario 2 One core lab. A single core laboratory services all direct access and non-urgent secondary care tests (adult and paediatric). Urgent secondary care work is undertaken in a local laboratory situated in each hospital.
- Scenario 3 Creation of five pathology clusters with one core laboratory for each. Five core laboratories provide direct access testing, non-urgent testing for secondary care and routine paediatric testing in each cluster. Urgent secondary care work is undertaken in a local laboratory situated in each

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hospital. Specialist paediatric testing is sent to two paediatric specialist laboratories in London⁴⁴.

- Scenario 4 Creation of variants on scenario 3. Based on the cluster based model described in Scenario 3, we have developed sensitivity analysis of three, six, eight and nine pathology clusters.

Based on modelling costs over a seven year or 20 year period across the scenarios described above, substantial savings are predicted by reconfiguring pathology services. These savings are assumed to accumulate slowly initially but ramp up after two years when activity levels are assumed to have reached their fully reconfigured state and there are no further transitional costs. These savings are largest in Scenario 3, around £2,577 million over 20 years. The savings are found to be largest in this scenario as it provides a better balance between economies in the core labs, whilst the reduction in activity in the local labs increases the cost per test in these labs. In this scenario the volume of tests in the local laboratory is on average around one million tests.

Figure 6: Implied long-run unit costs per test and savings over 20 years



Source: Deloitte analysis. Results for seven labs are based on uplifting estimated pay and consumables costs, whilst for greater than seven labs the general trend has been extrapolated.

The estimated savings vary across scenarios as a function of achieving economies of scale, primarily derived from savings in staff, equipment and reagent costs, whilst balancing increasing costs in the smaller local laboratories. Other savings may be broadly aligned across all scenarios. These include those that come from initiatives around, demand management, logistics and procurement which can be economically achieved based on more consolidated activity and the investment in latest IT

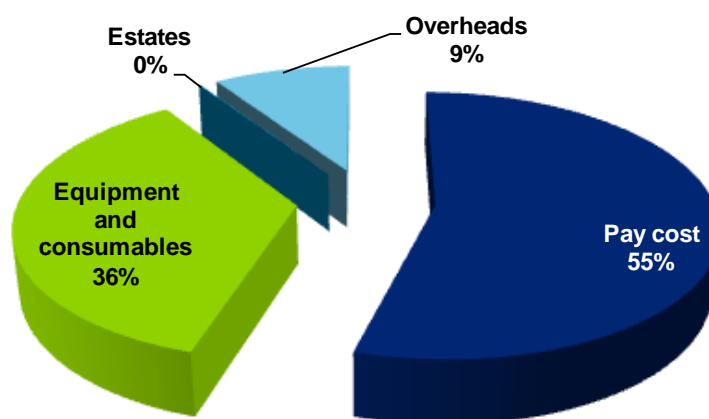
⁴⁴ This is consistent with the children and young peoples report. In our analysis we assume that specialist paediatric pathology services are consolidated to two laboratories where the specialist clinical services are being provided whilst routine paediatric services are undertaken alongside adult services in either a local or core laboratory depending upon required turnaround times.

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systems and management tools. To achieve the economies of scale, laboratories are assumed to move towards 24/7 hour working and with sufficient volumes in the core laboratories to smooth peaks and troughs in demand.

Set against these savings, a number of costs will increase including the cost of implementing effective IT connectivity and dedicated transportation. These cost increases are relatively insignificant when set against the savings achieved.

Figure 7: Unit cost by input type

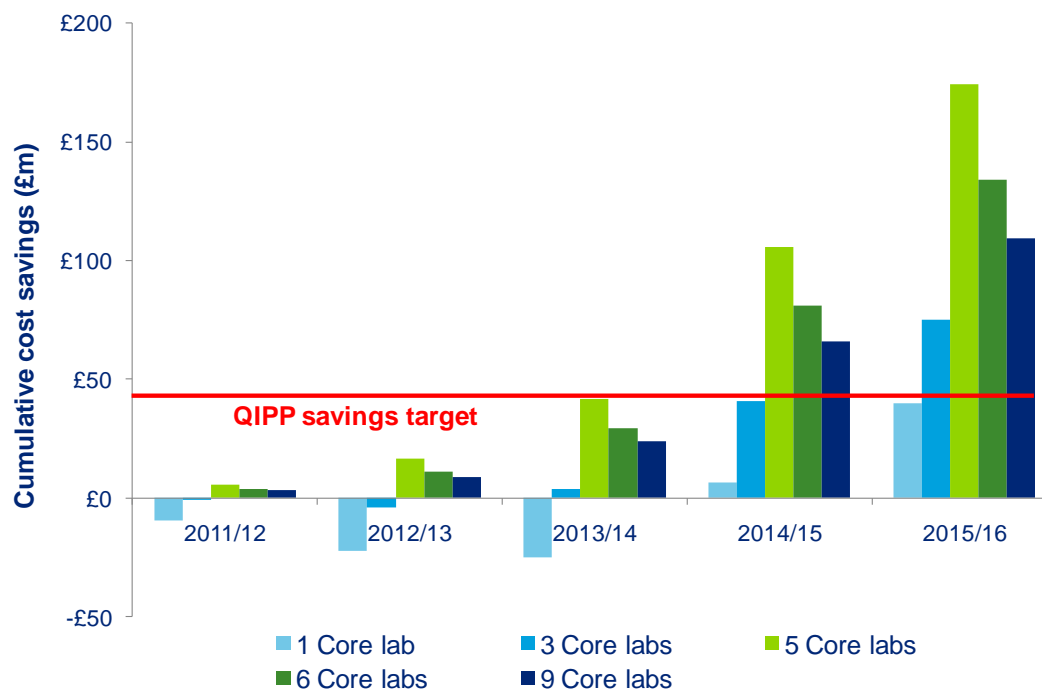


Source: Deloitte analysis based on trust data returns

The scenarios considered are all predicted to deliver against the QIPP target. The sector based Scenario 3 is predicted to deliver savings around four times the QIPP target.

Modernising Pathology Services in London

Figure 8: Savings against QIPP (£'000)



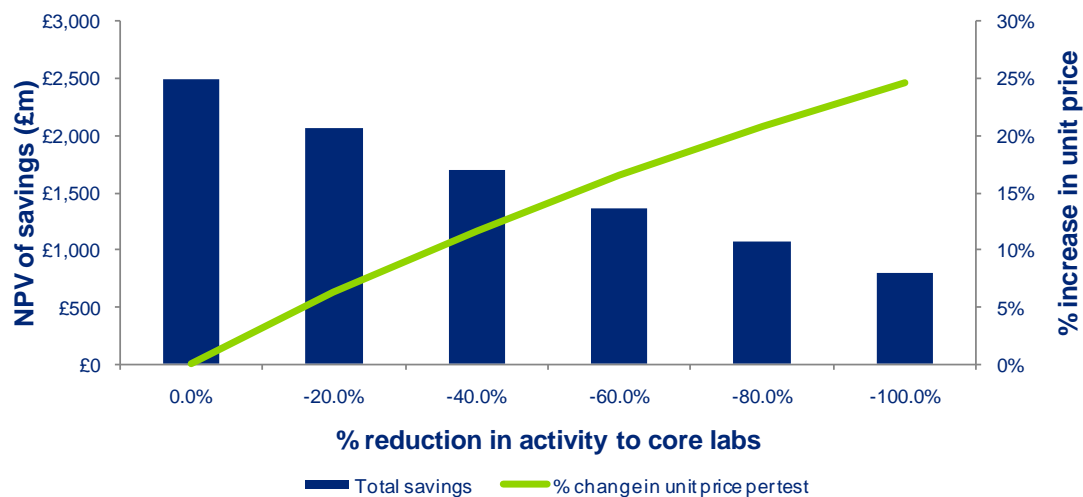
Source: Deloitte analysis

How to unlock the potential in London

To achieve the savings and benefit potential, providers and commissioners in London need to work together collaboratively in the provision of pathology services. If either direct access or urgent acute work does not form part of the consolidated activity to core laboratories then unit costs could rise between 15% to 25%.

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Figure 9: Impact of reducing non urgent acute activity transfers to core laboratories in Scenario 3



Source: Deloitte analysis

To ensure that collaboration is achieved savings at a system level will need to be shared through a number of mechanisms. Without an established mechanism, savings will not be shared; as costs in local laboratories rise from a loss of non-urgent secondary care, and direct access testing.

Figure 10: Savings mechanism

Scenario	Savings mechanism
Direct access	Savings are transparent and are reflected in the price charged
Acute	The commissioning trust is charged a price less than its pre-reconfiguration cost and is also compensated for loss of economies of scale in its local lab and, potentially, for some of the loss of the direct access margin.

Source: Deloitte analysis

Core laboratories cannot offer the lower unit prices unless they are assured of the volumes they will receive. This requires commissioners (both acute and direct access) to work together, collaboratively, to ensure that those that commission first are not penalised in the form of higher prices.

When establishing commissioning models, there are a number of issues that need consideration. This includes legal consideration in respect of tendering, joint ventures and TUPE concerns as well as more commercial issues around transport, IT systems, pricing, SLAs and contract renegotiations.

Collaboration between provider Trusts can be structured in a number of ways to achieve the desired outcomes, including:

- Through inter Trust service level agreements;

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- Through contractual joint ventures; or
- Through a corporate joint venture.

Any of which may include the provision of clinical or non-clinical services by commercial providers.

The choice of collaborative model will depend on the extent of strategic relationship that the trusts are seeking to achieve. What the structure must support is the set of mechanisms to incentivise the parties to optimise the pathology services by delivering equitable benefits to each party and providing mechanisms for ensuring quality standards are achieved.

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7. Legal considerations

NHSL advocate that any parties to a proposed collaboration seek independent legal advice on their proposals and also seek advice from the Co-operation and Competition Panel.⁴⁵

⁴⁵ <http://www.ccpnl.org.uk/>

Appendices

1. Clinical Expert Panel
 - a. TOR
 - b. Membership
2. Modernising Pathology Programme Board
 - a. TOR
 - b. Membership
3. Paediatric Expert Panel
 - a. TOR
 - b. Membership
4. Research & Development
5. Adult Clinical Working Group Membership
6. Pathology Clinical User Group membership
7. Workforce

Modernising Pathology Clinical Expert Panel
Terms of Reference

Title:	NHS London Pathology Clinical expert panel
Date approved and approving body:	Pathology Modernisation Board 24 August 2010
Overall role	To make recommendations for the implementation of the Carter review recommendations in London.
Purpose:	<p>Role of Clinical Working Group</p> <ul style="list-style-type: none"> • To consider the case for changing the provision of pathology services in London. • Recommend changes in service provision informed by the Carter report, driving improved quality, productivity and patient experience, informed by the evidence base and aligned with national work streams • Agree a model service specification for pathology services in London. • Make recommendations for the development of pathology networks in London • Ensure that the clinical interdependencies between clinical services and pathology laboratory services are identified and understood. • Determine the pathology services which must be provided on site in an acute hospital. • Promote innovation in the delivery of pathology services.
Membership:	<p>Core Membership</p> <ul style="list-style-type: none"> • Clinical chair. • Executive lead- NHS London Medical Director • Programme Director, NHS London. • Nominated Pathology clinicians drawn from a range of Trusts and disciplines • Primary care clinician. • Operational manager
In attendance	<ul style="list-style-type: none"> • Project Team • The Panel may request the attendance of other staff, as appropriate (as required for specific items)
Resources	The group will be supported by a Programme Director and project manager, supported by analytical and engagement support as required.

Modernising Pathology Clinical Expert Panel
Terms of Reference

Deputy Chair:	As agreed by the group
Tenure:	Initially to January 2011
Secretary:	Programme Director
Quorum:	<p>60% of membership + Chair (or designated representative)</p> <p>Each member has one vote.</p> <p>A quorum will be considered to exist if 60% or more of the formal voting and decision-making members (or nominated deputies) are present.</p> <p>A decision will be agreed if at least two thirds of those present express the same opinion or view.</p>
Frequency of Meetings:	Meetings of the Clinical Expert Panel will take place on a 6 weekly basis. On occasion, members may be asked to take part in longer workshops and events. Members will also be expected to take part in consultation events with other clinicians, patients and the public.
Responsibilities of members	<ul style="list-style-type: none"> ● Responsibilities of members of the Clinical Expert Panel include: <ul style="list-style-type: none"> ○ to fulfil the role of the Group as set out above ○ to inform the Panel through a fact base of clinical evidence and data on the performance of current service provision ○ to identify and collect this fact base directly from their respective organisations ○ to help engage clinical colleagues in London in the work. ○ to provide relevant data, whether public or internal data to inform the recommendations of the Panel. ○ to endorse a London wide view and not an organisation-specific view of the future provision of pathology services. ○ to keep papers and discussions confidential unless agreed otherwise ○ .
Accountability:	Accountable to the London Pathology Modernisation Board
Reporting responsibilities:	The group will provide regular reports to the London Pathology Modernisation Board

**Modernising Pathology Clinical Expert Panel
Membership**

CHAIR - Professor Adrian Newland	Bart's & The London
Dr Andy Mitchell	Medical Director – NHS London
Diana Middleditch	Programme Director – NHSL
Cathrine Farrer	Project Manager – NHSL
Gary Dakin	NHS London (POD)
Sarah Hill	London Deanery
Marian Malone	Great Ormond Street Hospital
Archie Prentice	Royal Free Hospital
Cyril Fisher	Royal Marsden Hospital
Jonathan Edgeworth	Guys & St Thomas' Hospitals
Ronnie Chee	Royal Free Hospital
Rohini Manuel	Health Protection Agency (PH)
Jim Stephenson	Epsom & St Helier Hospital
Paul Collinson	St George's Hospital
Gillian Williams	North West London Hospitals
Caje Moniz	Kings College Hospital
Deenan Pillay	University College London Hospital
Philip Wilson	St George's Hospital
Stephen Snewin	Imperial College Healthcare NHS Trust
David Ricketts	North Middlesex Hospital
Mallika Sekhar	West Middlesex University Hospital
Lise Hertel	GP
Andrew Steeden	GP

Modernising Pathology Programme Board

Terms of Reference

Title:	NHS London Modernising Pathology Board
Date approved and approving body:	Pathology Modernisation Board 24 August 2010
Overall role	To oversee the delivery of a London wide programme for the modernisation of pathology services which delivers on the QIPP opportunity of this work stream.
Purpose:	<p>Role of Modernisation board</p> <ul style="list-style-type: none"> • To consider the case for changing the provision of pathology services in London. • Recommend changes in service provision informed by the Carter report and by the Clinical Expert Panels. • To receive reports from the Clinical Expert panels. • To promote a well developed London market for pathology services, including both private sector and NHS providers. • To drive the implementation of the London pathology modernisation programme.
Membership:	<p>Core Membership</p> <ul style="list-style-type: none"> • Chair- Trust Chief Executive Senior Responsible Officer • NHS London Medical Director- Executive lead • Programme Director, NHS London. • Chairs of general and paediatric clinical expert panels • Trust Chief Executive • Head of Provider Transformation, NHS London • Chair, London Commercial Board • Primary care representative
In attendance	<ul style="list-style-type: none"> • The Panel may request the attendance of other staff, as appropriate (as required for specific items)
Resources	The group will be supported by a Programme Director and project manager, supported by analytical and engagement support as required.
Deputy Chair:	As agreed by the group
Tenure:	Initially to January 2011
Secretary:	Programme Director

Modernising Pathology Programme Board

Terms of Reference

Quorum:	<p>50% of membership + Chair (or designated representative)</p> <p>Each member has one vote.</p> <p>A quorum will be considered to exist if 75% or more of the formal voting and decision-making members (or nominated deputies) are present.</p> <p>A decision will be agreed if at least two thirds of those present express the same opinion or view.</p>
Frequency of Meetings:	<p>Meetings of the Modernisation Board will take place bi- monthly. On occasion, members may be asked to take part in longer workshops and events. Members will also be expected to take part in consultation events with other clinicians, patients and the public.</p>
Responsibilities of members	<ul style="list-style-type: none"> • Responsibilities of members of the Pathology Modernisation Board include: <ul style="list-style-type: none"> ○ to fulfil the role of the Group as set out above ○ to help engage clinical and executive colleagues in London in the work.. ○ to endorse a London wide view and not an organisation-specific view of the future provision of pathology services. ○ to keep papers and discussions confidential unless agreed otherwise
Accountability:	<p>Accountable to the NHS London Productivity PLG.</p> <p>Accountable to London Commercial Board for funding provided by them.</p>
Reporting responsibilities:	<p>The group will provide regular reports to the London Pathology Modernisation Board</p>

Modernising Pathology Programme Board

Membership

CHAIR - Fiona Wise	North West London Hospitals
Dr Andy Mitchell	Medical Director – NHS London
Diana Middleditch	Programme Director – NHS London
Cathrine Farrer	Project manager – NHSL
Marion Malone	Great Ormond Street Hospital
David Astley	St George's Hospital
Matthew Hopkins	Epsom & St Helier Hospital
Adrian Newland	Bart's & The London
Sarah Pinto-Duschinsky	Commissioning for London
Andrew Steeden	GP

Modernising Pathology Paediatric Clinical Expert Panel

Terms of Reference

Title:	NHS London Paediatric Pathology Clinical expert panel
Date approved and approving body:	Pathology Modernisation Board 24 August 2010
Overall role	To make recommendations for the implementation of the Carter review recommendations in London with respect to paediatric pathology.
Purpose:	<p>Role of Clinical Working Group</p> <ul style="list-style-type: none"> • To consider the case for changing the provision of paediatric pathology services in London, whilst recognising the clinical interdependencies between children's and adult services. • Recommend changes in service provision informed by the Carter report, driving improved quality, productivity and patient experience, informed by the evidence base and aligned with national work streams • Agree a model service specification for paediatric pathology services in London which meets the specific needs of children and babies. Newborn screening and foetal pathology, being commissioned by specialised commissioners and already networked, would be excluded from this review. • The age range for this review will be 0 to under 17 years. • Make recommendations for the development of paediatric pathology centres in London • Ensure that the clinical interdependencies between clinical services and children's pathology laboratory services are identified and understood. • Determine the paediatric pathology services which can safely be provided on site in a non specialist acute hospital. • Promote innovation in the delivery of pathology services and ensure a sustainable workforce, with a focus on training, teaching and R&D
Membership:	<p>Core Membership</p> <ul style="list-style-type: none"> • Clinical chair. • Executive lead- NHS London Medical Director • Programme Director, NHS London. • Nominated relevant clinicians and manager(s) drawn from a range of Trusts and disciplines • Primary care clinician (s).

Modernising Pathology Paediatric Clinical Expert Panel

Terms of Reference

In attendance	<ul style="list-style-type: none"> • Project Team • The Panel may request the attendance of other staff, as appropriate (as required for specific items)
Resources	The group will be supported by a Programme Director and project manager, supported by analytical and engagement support as required.
Deputy Chair:	As agreed by the group
Tenure:	Initially to January 2011
Secretary:	Programme Director
Quorum:	<p>75% of membership + Chair (or designated representative)</p> <p>Each member has one vote.</p> <p>A quorum will be considered to exist if 75% or more of the formal voting and decision-making members (or nominated deputies) are present.</p> <p>A decision will be agreed if at least two thirds of those present express the same opinion or view.</p>
Frequency of Meetings:	Meetings of the Clinical Expert Panel will take place on a 6 weekly basis. On occasion, members may be asked to take part in longer workshops and events. Members will also be expected to take part in consultation events with other clinicians, patients and the public.
Responsibilities of members	<ul style="list-style-type: none"> • Responsibilities of members of the Clinical Expert Panel include: <ul style="list-style-type: none"> ○ to fulfil the role of the Group as set out above ○ to inform the Panel through a fact base of clinical evidence and data on the performance of current service provision ○ to identify and collect this fact base directly from their respective organisations ○ to help engage clinical colleagues in London in the work. ○ to provide relevant data, whether public or internal data to inform the recommendations of the Panel. ○ to endorse a London wide view and not an organisation-specific view of the future provision of pathology services. ○ to keep papers and discussions confidential unless agreed otherwise ○ .
Accountability:	Accountable to the London Pathology Modernisation Board
Reporting responsibilities:	The group will provide regular reports to the London Pathology Clinical expert panel.

Modernising Pathology Paediatric Clinical Expert Panel

Membership

CHAIR - Dr Marian Malone	Great Ormond Street Hospital
Dr Andy Mitchell	Medical Director – NHS London
Diana Middleditch	Programme Director – NHS London
Fiona Carragher	Guy's & St Thomas' Hospitals
Garth Dixon	Great Ormond Street Hospital
Catherine Cale	Great Ormond Street Hospital
Ruth Nash	St George's Hospital
Inderjeet Dokal	Bart's & The London
Jane Hawdon	University College London Hospital
Mike Sharland	St George's Hospital
Neil Sebire	Great Ormond Street Hospital
Simon Heales	Great Ormond Street Hospital
Ri Liesner	Great Ormond Street Hospital
Sandra Rainbow	North West London Hospitals
Susan Height	Kings College Hospital
Susan Leech	Kings College Hospital
Rita Andrews	Project Office NHSL (Minutes)

Research and Development in a Changing Pathology Environment

1. Many basic science or non-NHS research-funded groups work closely with NHS departments, but they do not usually undertake service work for governance, legal and other reasons, and do not necessarily have goals related to clinical improvement. However, there has been a cultural and resource shift towards translational research, so that a significant amount of applied research and developmental work now takes place in a service-based environment. The challenge is to integrate this with rationalisation of service delivery while continuing links with non-clinical science.
2. Successful arrangements of this type currently exist in some sub specialised areas of tumour biology. One example is in the field of soft tissue sarcoma at the Royal Marsden which provides a full range of immunophenotypic and molecular diagnostic (PCR and FISH) investigations linked to one of the largest specialised histopathology services in this area of cancer in Europe. In addition, basic scientists in the related Institute of Cancer Research investigate molecular mechanisms of sarcomagenesis, with access to large frozen and paraffin archives accrued from the diagnostic service.
3. Many original observations, however, are now made in the molecular diagnostic laboratory by clinical scientists who are playing a more critical role in translational research. This currently includes identification of new gene rearrangements in sarcomas, and *KIT* and *PDGFRA* mutations in GI stromal tumours that are essential for personalised treatment, and can only arise out of a high volume service. This type of developmental work does not generally require additional funding; otherwise, research monies have to be sought in the usual ways.
4. The same laboratory provides the molecular service for the RMH/SGH integrated haematopathology diagnostic service, exemplifying service rationalisation within a regional cancer network. However, it is important to ensure that total costs are reduced not merely redistributed.
5. Similar arrangements are likely to develop for other, more common cancers that need to be evaluated at the molecular and immunophenotypic level for the potential development of targeted therapies. These might include colorectal carcinomas (*KRAS*), gastric cancers (*HER2*), lung cancers (*EGFR*), and melanoma (*BRAF* and *kit* mutations). Many labs now have routine FISH for lymphomas and some specific types of sarcoma (as well as ISH for viruses including HPV, EBV) High volumes improve skills, provide a better environment for developmental work, and accelerate growth of tissue repositories.

Research and Development in a Changing Pathology Environment

6. For other specialities and disciplines, a range of specialist services could be provided in properly accredited regional laboratories; and such centres, having the facilities and expertise, could absorb from other trusts the wider range of established 'non-specialist' molecular testing. This consolidation of services should result in lower costs, more reliable results and optimise development opportunities.

7. The strategy for consolidation should include concentration of the multidisciplinary expertise which facilitates clinical research and development - the specialised diagnostic laboratory should be situated at a principal locus of relevant clinical and research activity. The number of centres will vary with specialty, but existing large-scale laboratories with proven records of contribution to R & D should be retained and expanded. Some of the more specialised (rather than super specialised) tests might logically be concentrated in the AHSCs. This would also address the issue of small numbers of specialised tests being done with problems of accreditation, validation, expertise and cost.

8. Productive existing links with university departments and non-clinical scientists should be maintained; it is desirable (but not essential) that these be co-located; in the example in (2) above, the basic science units and molecular diagnostic laboratories are each only 13 miles away from the clinical/pathological base. Consolidation can also result in new links being formed.

9. The impact of proposed changes on postgraduate medical education might be considered elsewhere. However, as PGME is mostly regionally based it should not be significantly disadvantaged by service consolidation. Indeed, there might potentially be improvement as trainees who wish to specialise in a given area of expertise can request longer attachments in the centres of excellence focused on their area of choice. However, major reconfigurations will require close collaboration with Training Programme Directors and others.

C Fisher Sept 3rd 2010

Modernising Pathology Adult Clinical Working Group

Membership

Name	Trust
Caje Moniz	Kings College Hospital
Cyril Fisher	Royal Marsden Hospital
David Ricketts	North Middlesex Hospital
Diana Middleditch	Programme Director NHSL
Cathrine Farrer	Project Manager NHSL
Gillian Williams	North West London Hospitals
Paul Collinson	St Georges Hospital
Prof Adrian Newland	Barts & The London Hospital
Ronnie Chee	Royal Free Hospital
Sandra Rainbow	North West London Hospitals
Stephen Snewin	Imperial College Healthcare
Rita Andrews	Project Office NHSL (Minutes)

Pathology Clinical User Group

Membership

Name	Post/Title	Trust
Dr Helen Mundy	Metabolic Paediatrician	Evelina Hospital, Guys & St Thomas'
Dr Mike Champion	Metabolic Paediatrician	Evelina Hospital, Guys & St Thomas'
**Dr Mike Glynn	Cons Physician/Gastro	Barts and the London
Dr Anna Riddell	Cons Paediatrician	Barts and the London
Dr Steven Hyer	Cons Physician	Epsom & St Heliers
Dr Ann Hickey	Cons - Neonatologist	Kings college
Dr Simon Broughton	Cons - Paed High Dependency	Kings college
Miss Shohreh Beski	Consultant Obs/Gynae	Barts and the London
Dr Charles Cayley	CD & Care of Elderly Physician	Central Middlesex Hospital (NWLHT)
**Mr Andrew Hayes	Specialist Cancer Surgeon	Royal Marsden
Dr Kambiz Boomla	GP	Chrip Street HC, E14 6PG
**Diana Middleditch	Programme Director	NHSL
**Rita Andrews	Project Officer	NHSL (Minutes)

Work Force

Modernising Scientific Careers (MSC) initiative led by Professor Sue Hill the DH Chief Scientific Officer and through the work of a DH/Royal College of Pathologists Task Force.

MSC is a UK-wide education and training strategy for the whole healthcare science workforce in the NHS and associated bodies. MSC introduces a clear and coherent career pathway and structure for the healthcare science workforce. Aspects of the programme cover every step of the career pathway, and include education, training and workforce planning. NHS London has been fully engaged with the initiative and is committed to implementing the national framework where it meets the needs of London service providers. Nationally MSC has been fully integrated with the Pathology QIPP Programme and this has been replicated at a regional level.

Currently for 2011 Trainee Healthcare Scientists are being recruited onto the new NHS Scientist Training Programme (STP), a three year programme which is due to commence September/October 2011. This recruitment cycle includes Trainee Healthcare Scientists in pathology (Life Sciences) pathways and this will foreshadow the implementation of the other strands within the framework according to future need within a reconfigured London pathology service environment.

Reference: http://www.dh.gov.uk/en/Aboutus/Chiefprofessionalofficers/Chiefscientificofficer/DH_086661

DH/Royal College of Pathologists Task Force

This task force is looking in detail at the synergies between scientist training pathways at a higher specialist level and the eventual roles that are undertaken, and those of medically qualified pathologists. This work stream has particular relevance to the DH response to the Comprehensive Spending Review 2010 which stated that “we will increase the use of highly qualified clinical scientists in the NHS to free up doctors to focus on the work that only they can do, as part of the Modernising Scientific Careers programme”

Reference: http://www.dh.gov.uk/en/MediaCentre/Pressreleases/DH_120676

The London SHA has already embarked on a process for Commissioning for Education and Training in London with the intention of driving up the quality of training for contestability.

The Commissioning for Medical Training and Education will need to take into account the service redesign in London to ensure comprehensive curriculum delivery and programme design and delivery by contracted lead providers.