

A supplementary report for the Infected Blood Inquiry into structures and funding of the communicable disease control system in England to supplement the response to Q17 in the report of its Public Health and Administration Expert Group (pp.8-13), which was submitted to the Inquiry in August 2022

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INTRODUCTION

The purpose of this report is to provide more detailed information for the Inquiry on the structures and funding of the communicable disease control system in England, especially from 1974, to supplement the response to Q17 in the report of its Public Health and Administration Expert Group (pp.8-13) which was submitted to the Inquiry in August 2022.

In particular, this report discusses in:

Section 1: the organisational and funding challenges within the Public Health Laboratory Service (PHLS) and its Communicable Disease Surveillance Centre (CDSC) that led to the abolition of PHLS in 2003 as part of the Labour government's wider health market reforms.

Section 2: the creation and operation of the Health Protection Agency (HPA) in 2003 and the role of primary care trusts (PCTs), leading to the break up of PHLS, centralisation and erosion of local communicable disease control services, unclear accountability, and reduction in the number of peripheral public health laboratories.

Section 3: the further fragmentation and part-privatisation of local laboratory services through joint ventures with NHS foundation trusts, and the lack of publicly available national data on expenditure, workforce, laboratories and associated services for communicable disease control.

EXECUTIVE SUMMARY

Over the years of its existence, and despite many of the challenges it faced, the PHLS had become one of the most highly regarded public health institutions internationally. It had benefitted from strong commitment and valuable expertise, notably Sir Graham Selby Wilson (director EPHLS / PHLS 1941-1963), Sir James Howie (director PHLS, 1963-1973), Dr N Spence Galbraith (director CDSC 1977-87), Dr Norman Begg (director of immunisation, Central Public Health Laboratory), and Dr Chris Bartlett (director CDSC 1987-2003), all of whom regularly published articles and reports in the mainstream medical journals on their vision of the system, developments in the system and what it was intended to do, and on its effectiveness in terms of epidemic and outbreak control. (Such publications are lacking today.) In compiling this report, papers of the PHLS board and related civil service documents in the National Archives were consulted, and they clearly show that a great deal of thought and discussion went into the establishment of and support for a local and national system for communicable disease control, and that many health department officials were also supportive, trying to find creative solutions to challenges such as the lack of funding (for example by establishing joint posts). What is also clear is that there was a strong system and network developing between the local and the national, which has been incrementally dismantled, leaving the NHS underprepared when, for example, the covid-19 pandemic struck.

The risks of disease from infected blood products, including hepatitis, had been well established since the 1940s. As far back as 1949, the chief medical officer warned of the need for clinicians to exercise great care in use of blood products and described the increased use of small pool plasma to reduce risk (Minister of Health, 1949).

Communicable disease control is underpinned by surveillance, monitoring, and interpretation of risks, a role usually performed by clinical epidemiologists and their teams. However, the opportunities to establish a regional and local network of clinical epidemiologists to link the newly formed CDSC in 1977 and from 1974, the proper officers in local authorities, to complement and

supplement the activities of the PHLS network of national and peripheral PHLS laboratories, were not grasped until the early 1990s. This meant that CDSC, with a small number of staff undertaking a wide range of roles and dealing with many different outbreaks and investigations, could only act in an advisory capacity and had insufficient capacity to provide regional and local support.

If regional epidemiologists had been appointed and had sat on committees with regional haematologists and on local joint consultative committees with clinicians and medical officers of environmental health, it is likely that the risks from infected blood following Galbraith's warning letter in May 1983 would have been more widely communicated and understood by clinicians.

PHLS (including CDSC) faced funding challenges throughout its existence. Public expenditure cuts were exacerbated by the new system of funding brought in by the internal market. Unbundling the costs of NHS laboratories and PHLS peripheral laboratories due to the conjoined nature of the laboratories and contracting for services proved extremely problematic. When in 1993 PHLS took direct management control of its peripheral laboratories grant funding for these ceased and income was generated from health authorities via NHS contracts for services. There was ongoing reduction in number of laboratories.

In 2003 PHLS was abolished. Central PHLS laboratory services and regional epidemiology services were centralised in the newly created the HPA, and its network of peripheral laboratories was placed under the direct management of NHS trusts which contracted with PCTs to provide their services. However PCTs only received two years of ringfenced funding for the peripheral laboratories, after which the budget was subsumed into the general allocations for PCTs, and laboratories were further reduced in number.

PCTs facing financial constraints prioritised contracts for services for clinical care, and health protection functions and local communicable disease control were neglected. This has continued to be the case to present day with each successive NHS reorganisation first eroding and then in 2012 erasing local systems and capacity for health protection. Since 2012, trust mergers and the use of joint ventures for and outsourcing of some laboratory services, together with the carving out of local public health from the NHS, has increased fragmentation and decreased transparency and accountability. Publicly available data on national expenditure, workforce, laboratories, and associated services are not routinely collected for publication making it impossible to track what is happening to services for communicable disease control and the extent to which the NHS is prepared for any future epidemics.

SECTION 1 ORGANISATIONAL AND FUNDING CHALLENGES FOR THE PHLS AND THE CDSC

1.1 Organisational overview

1.1.1 Public Health Laboratory Service

The Public Health Laboratory Service (PHLS) was established under section 17 of the NHS Act 1946, replacing its predecessor the Emergency PHLS, set up in 1938.¹ It was run by the Medical Research Council (MRC), but following the PHLS Act 1960, it was administered by the minister of health through an appointed board accountable to the minister, which was to include at least two people appointed after consultation with the MRC; at least two bacteriologists (from 1977 microbiologists); at least two medical officers of health (MOHs) (from 1977 two proper officers appointed by a local authority); at least one person to represent hospitals; and at least one general medical practitioner.² Established again in the NHS Act 1977 (in order to enable it to take on in 1979 the Microbiological Research Establishment at Porton Down), it was a body corporate with executive functions that was not, according to the civil service classification of non-departmental public bodies in 1982, part of the NHS³ – although this was never definitively determined, partly because “the NHS” is not legally defined, and there were other views.

PHLS ran a national (England and Wales) network of laboratories, as well as at its Colindale headquarters the Central Public Health Laboratory (CPHL). In the 1970s and 1980s, the CPHL consisted of specialist and reference laboratories, broadly separated into the divisions of enteric pathogens, hospital infection, and microbiological reagents and quality control, the food hygiene laboratory, the virology reference library, and the national collection of type cultures. Among the laboratories was the Epidemiological Research Laboratory (ERL), which tested and monitored vaccines and investigated the long-term consequences of infection, organising and coordinating field studies in cooperation with the PHLS laboratories, health authorities, industrial or university researchers, and family doctors. It was the part of the PHLS with closest links with the National Institute for Biological Standards and Control and the Committee on Safety of Medicines, and was represented on all the Department of Health and Social Security (DHSS) and MRC committees concerned with immunisation.⁴ In 1983 as a cost-saving measure ERL was moved, with the Communicable Disease Surveillance Centre (CDSC) into a new Division of Epidemiology, directed by Dr N Spence Galbraith.⁵

PHLS board chairman, Dr Charles Gordon Smith, articulated the case for the PHLS system in October 1982:

“Communicable diseases and the microbes that cause them are no respecters of administrative boundaries; thus where incidents have ramifications beyond the catchment area of a laboratory, co-ordination is essential. Purely passive co-ordination, such as requiring reports on specified

¹ NHS Act 1946, s.17. “The Minister may provide a bacteriological service, which may include the provision of laboratories, for the control of the spread of infectious disease, and the Minister may allow persons to make use of services provided at such laboratories on such terms, including terms as to the payment of charges, as the Minister thinks fit.”

² Public Health Laboratory Service Act 1960, schedule; National Health Service Act 1977, schedule 3.

³ DN 1/38 PHLSB papers 1982: PHLSB 82/19 Minutes of the Board: 28 January 1982, 6. All archival records, unless otherwise stated, are to the National Archives.

⁴ DN 1/38: PHLSB 82/60 Epidemiological research laboratory. 20 October 1982

⁵ JA 428/723 Public Health Laboratory Service Board minutes 1984: PHLSB 84/17 Minutes of the Board: 26 January 1984, item 21.

infections to be returned to a centre, or cultures of particular microbes to a reference laboratory, could be achieved without the laboratories concerned belonging to the same organization. But information collected on such a casual basis, ignoring negative findings and without reliable denominators would be a poor basis for prevention and control, and co-ordinated positive action is often required of several laboratories in different parts of the country. Once these requirements are recognised, the need becomes obvious to link the peripheral laboratories under a single national authority, the Board which also controls the reference laboratories and CDSC. As there are now so few Medical Officers (Environmental Health) with substantial experience of communicable disease control in post, active intervention by PHLS laboratories is playing an increasing part in the investigation and control of infectious disease incidents and such intervention in several places simultaneously requires co-ordination. For the same reasons environmental health departments are relying more and more on PHLS laboratories and their directors in the investigation of food poisoning and in food microbiology. As the incidence of infectious diseases decline, not only does knowledge and competence to diagnose and control them, but the need for vigilance increases as herd immunity diminishes. Moreover, as new disease entities are recognised, e.g. Campylobacter infections, there is need for a national organization to investigate their incidence and prevalence, their significance as causes of disease and to develop appropriate diagnostic and survey techniques.”⁶

PHLS peripheral laboratories and relationship to NHS hospital laboratories

PHLS and its central laboratories was to some extent a national public health function grafted onto a regionally organised hospital service.⁷ It ran a network of regional and area (also known as peripheral) laboratories, mostly based in hospitals and run jointly with the NHS hospital laboratories where they were located. Like the other 300 or so microbiological laboratories in hospitals in England and Wales, they provided diagnostic and other services to hospitals and health authorities. Unlike them, though, they had an additional public health function, sending testing data to the central laboratories and the CDSC to provide a national picture of infectious disease, and providing country-wide support to local authority and health authority medical officers and environmental health officers (EHOs). At its peak in 1969 the PHLS had 69 of these laboratories, but during the 1970s the number was reduced to 52. Some of these were also reference laboratories, that is, they provided expertise and reference samples for specific pathogens, for instance, gonococcus at Bristol and mycobacterium at Cardiff. All but two of these 52 were run jointly with NHS hospitals, with staff and costs splits between PHLS and the health authority.

The arrangements for management of these laboratories was set out in the DHSS guidance HM(70)50.

“Regional Hospital Boards should consult with the PHLS Board to ensure that, at selected Area Laboratories, the PHLS provides a microbiology laboratory as a joint (hospital/PHLS) laboratory. For hospital schemes involving joint laboratories, costs are shared on a basis related to the space provided for the PHLS and hospital purposes, agreed between the PHLS and the Board concerned. Where ... the PHLS part of the laboratory is to undertake hospital bacteriology or virology the apportionment should take this into account on the basis of approximate estimates of the anticipated workload. ... Arrangements for cost sharing of the revenue costs of joint laboratories should be reviewed regularly by Hospital Boards and the PHLS to ensure that they reflect broad variations in costs incurred.”⁸

⁶ DN 1/38: PHLSB 82/62 Review of the functions and organization of activities of the Public Health Laboratory Service. 28 October 1982, p1.

⁷ DN 1/34 PHLSB papers 1980: PHLSB 80/3 Policy for sharing of costs in joint Public Health Laboratory Service/Area Health Authority laboratories. 16 January 1980.

⁸ JA 397/85: 12 April 1990. Memo. R Dora Pease to Mrs Baxter, NHS Bill: management of PHLS peripheral laboratories, para 2.

This meant that the precise arrangements varied across the laboratories, including the proportion of funding provided and the distribution of the workforce. But although it was “an historical “hotch-potch”” it was at least straightforward for both parties to administer.⁹

Communicable Disease Surveillance Centre, 1977- 2003

While epidemiological surveillance had long been recognised as necessary for disease control, even before the inception of the NHS, a national centre for disease surveillance did not come into being until 1977, some 30 years after the NHS was established. Following the 1973 smallpox outbreak in London, a committee of inquiry, chaired by PJ Cox QC, concluded that health protection services were inadequately coordinated across England (Committee of Inquiry into the smallpox outbreak in London in March and April 1973, 1974). There had been no central function for communicable disease control in the UK (apart from disease notification) until the establishment of the Communicable Disease (Scotland) Unit in Glasgow in 1969 following the 1964 Aberdeen typhoid outbreak (“Scotland celebrates 50 years of its national unit for health protection,” 2019).

Cox recommended that the DHSS’ epidemiological section should transform, in the event of a smallpox outbreak, into a highly active information and coordinating centre. It was preferred, though, to create a permanent centre, and in July 1976 a Communicable Disease Surveillance Centre (CDSC) committee was set up, with members from the DHSS, Welsh Office, Faculty of Community Medicine, Office of Population Censuses and Surveys, Environmental Health Officers Association, and PHLS.¹⁰

According to its first director, Galbraith, its organisational features were unique:

“First, it is a national unit without executive powers, legal responsibility for disease control remaining local; second, it is part of the NHS with a medical staff of community physicians with the same status as their locally-based colleagues; third, it is a service unit with a national responsibility for communicable disease surveillance and control and a commitment to support local community physicians; fourth, it has the ability to deploy staff to meet local needs for disease control” (Galbraith, 1981).

The CDSC was considered by the PHLS board chairman as “the pivotal centre of the Service supported by the timely provision of standardised and accurate data from the periphery, and by research and development from CPHL and CAMR [the Centre for Applied Microbiology and Research, at Porton Down].”¹¹ According to Health Circular HC(802)2 of February 1980, its main functions were

- surveillance and control of outbreaks – “CDSC exercises responsibility on behalf of the Chief Medical Officers (of the Department of Health and Social Security and the Welsh Office) for those duties relating to surveillance and advice on control of outbreaks which were formerly undertaken by medical officers in DHSS ... It responds to requests for advice, in collaboration with PHLS and hospital laboratories, co-ordinates control measures in an outbreak involving a number of districts, and is able to give assistance to MOsEH particularly in serious incidents”
- information – “CDSC compiles and distributes the Communicable Disease Report (CDR) as part of a comprehensive information service for communicable diseases. The Centre is also responsible for the informal exchange and dissemination of epidemiological information on communicable diseases”

⁹ JA 397/85: 12 April 1990. Memo. R Dora Pease to Mrs Baxter, NHS Bill: management of PHLS peripheral laboratories, para 2, para 3, JA 397/58: Finance 86/6. Appendix B. Amended draft 16 January 1986. Public Health Laboratory Service Board - Funding of the peripheral microbiology laboratories, p6.

¹⁰ DN 1/29 PHLSB papers 1976: PHLSB 76/1. Agenda 29 July 1976

¹¹ DN 1/38 PHLSB papers 1982: PHLSB 82/62 Review of the functions and organization of activities of the Public Health Laboratory Service. 28 October 1982, p2.

- teaching – “CDSC participates in training programmes for community physicians and others involved in the control of communicable disease” (Department of Health and Social Security, 1980).

It reported to, and liaised with, the DHSS’ Med IMCD (International Health, Microbiology of Food and the Environment and Communicable Disease), the section responsible for communicable disease (“First written statement of Diana Walford - submitted to the IBI on 05 July 2021,” 2021).

Despite his best efforts, Galbraith faced difficulty building up staffing in CDSC. At inception the centre consisted of just Galbraith, a senior medical officer seconded from DHSS (JRH Berrie¹²), and a secretary (Galbraith, 1989). By July 1980 there were still just four consultants, one senior medical officer and two senior registrars at Colindale CDSC, and two in the regions.¹³ Galbraith was very determined to expand CDSC, battling with his PHLS colleagues and also with DHSS officials, one of whom wrote, “there is little hope of stopping Dr Galbraith when he is in full cry”.¹⁴ By 1983 it consisted of

- director – development and monitoring of surveillance and disease investigation and control; planning of training; recruitment of professional staff; liaison with outside bodies and committee work; teaching; report writing
- deputy director, specialist in community medicine (epidemiology) – medical editor of the *Communicable Disease Report*
- specialist in community medicine (epidemiology) – organising and participating in field investigations; short attachment training scheme
- specialist in community medicine (information) – head of Information Unit
- consultant epidemiologist – producing special reports for *CDR* and other publications; senior registrar training programme
- statistician (part time)
- senior medical officer on secondment from DHSS
- four assistant epidemiologists (senior registrars, two funded by regional health authorities (RHAs))
- specialist in community medicine (epidemiology) – Cardiff.¹⁵

To get around financial constraints, CDSC created joint appointments. A proposed joint consultant appointment with Office of Population Censuses and Surveys (OPSC) in 1978 was delayed until 1983 by financial difficulties at OPSC.¹⁶ CDSC also appointed honorary specialists in community medicine (epidemiology) from, for instance, the MRC Clinical Research Centre at Harrow, Charing Cross Medical School, the University of Southampton, and the West Midlands Regional Health Authority.¹⁷

¹² DN 1/30: PHLSB 77/30 Minutes of CDSC steering committee 07 September 1977, para 6.3.

¹³ DN 1/35 PHLSB papers 1980: PHLSB 80/45 PHLS : “The way forward” Discussion paper for Board working dinner 22nd July 1980, para 4.1.1.

¹⁴ MH 154/1315 Control of infectious diseases – correspondence and discussions with the Public Health Laboratory Service. (On the re-organisation of the NHS and local government – establishing post of regional epidemiologist: 340/11 6A

¹⁵ JA 397/25 PHLS: review 1982 of staffing, functions, and efficiency. Report of the D.H.S.S. review of the Public Health Laboratory Service May 1985, para 8.4-5.

¹⁶ DN 1/31 PHLSB papers 1978: PHLSB 78/39 Minutes of CDSC steering committee 08 September 1978, para 4.6; DN 1/39 PHLSB papers 1983: PHLSB 83/56 Agenda 27 October 1983, 20.

¹⁷ DN 1/36: PHLSB 81/18 Agenda 30 April 1981, 16; DN 1/37 PHLSB papers 1981: PHLSB 81/58, Agenda 29 October 1981; DN 1/38 PHLSB papers 1982: PHLSB 82/58 Agenda 28 October 1982, 19.

With this small team CDSC carried out its main specialist epidemiological functions in PHLS.¹⁸ They were extraordinarily extensive and included:

- national surveillance or continuous monitoring of infection in the population to (a) detect alterations in disease patterns for early investigation and prevention, and (b) assess the effect of national preventive programmes, eg, vaccination
- investigation and control of communicable disease – a local legal responsibility, but PHLS had an obligation to advise, assist, and coordinate activities of local public health departments; medical officers of environmental health (MOEHs) were obliged to inform CDSC of large or important incidents
- vaccine research – a function of the ERL
- surveys – PHLS planned and coordinated multicentre studies of infection, including ERL studies on the long-term consequences of infection
- statistics and scientific computing
- training and research
- collating the information on infections gathered by peripheral and NHS laboratories and other sources and publishing it weekly in the *Communicable Disease Report*, distributed to microbiologists, infectious disease physicians, community physicians, EHOs, school medical officers, and others.

CDSC did see an increase in funding from the Department of Health (DH) from about £1m in 1987-88 to £2.7m in 1990-91. No doubt the two major public inquiries, into the outbreak of salmonella at Stanley Royd Psychiatric Hospital in 1984 and into Legionnaire's disease at Stafford District General Hospital in 1985, and the subsequent Acheson report into the future development of the public health function that endorsed the key role in surveillance of consultants in communicable disease control (CCDCs), were uppermost in the minds of politicians and DHSS civil servants throughout the late 1980s (Acheson, 1988; Department of Health and Social Security, 1986; "Outbreak of Legionnaire's Disease in Staffordshire + other outbreaks around the country. Confidential Filing. National Health. May 1985," n.d.).

Regional epidemiologists

One of the prevailing issues throughout much of PHLS' existence was the appointment of regional epidemiologists for the purposes of disease surveillance. According to a PHLS committee to review its epidemiology that reported in February 1987, the regional epidemiologist would be based in a regional laboratory with close links to everyone involved in infection in the region. They would provide regional expertise in infectious diseases for surveillance and the investigation of acute outbreaks, and provide a strong link between CDSC and local units in the region. From CDSC's point of view, the posts would add necessary career posts in infectious disease epidemiology without overburdening the centre.¹⁹

The Emergency Public Health Laboratory Service had wished during the Second World War to appoint regional epidemiologists, but was unable to do so due to concerns of MOHs and Ministry of Health medical officers that it was trespassing on their work (Williams, 1985, pp. 39, 48–49). In the 1950s, plans for regional epidemiologists were again blocked due to opposition from the Society of Medical Officers of Health, whose members had already lost some of their clinical responsibilities following the 1946 NHS Act (Williams, 1985, pp. 55–56). In 1970, the PHLS director Sir James Howie called for regional epidemiologist posts to be established, as did the Cox report (Committee of Inquiry into the smallpox outbreak in London in March and April 1973, 1974; Howie, 1970). According

¹⁸ DN 1/38: PHLSB 82/61 Epidemiology in the PHLS. 20 October 1982; Report of the working party on re-allocation of resources. 14 July 1982, para 6.2.

¹⁹ JA 397/15 PHLS – Board meetings papers + minutes: Conclusions of the committee to review of [*sic*] epidemiology in the PHLS held on 24 February 1987, 6.2.

to Howie, MOHs no longer had the skills, experience, and training, or the time, for adequate infectious disease control.

From the time of CDSC's creation in 1977 there was continued discussion in PHLS and CDSC about regional posts in epidemiology. There were also growing gaps in expertise at disease surveillance at local level. Communicable disease control had always been a local responsibility under the Public Health Acts. MOHs who were employed by local authorities had statutory executive powers and received disease notifications. There was a longstanding recognition that not all MOHs had the necessary expertise in disease surveillance and communicable disease control (Galbraith, 1977). When the structural reorganisations of 1974 abolished the role of the MOH, and transferred some health services that had been provided by local authorities to the NHS, local authorities retained their responsibility for communicable disease control, and had to appoint a 'proper officer' to receive disease notifications. This role, known as the medical officer of environmental health (MOEH) was usually delegated to a community physician in health authorities, which made for complex and confusing arrangements between health authorities and local authorities (Acheson, 1988, para. 2.8; Department of Health and Social Security, 1973; Semple and Johnson, 1979, p. 2). Post 1974, there was a rapid reduction of posts as former MOHs, now known as consultants in community medicine, took early retirement. Moreover after the 1974 NHS reorganisation, consultants in community medicine were increasingly tied up in matters of medical administration (later health services management) and local control of communicable diseases was at best a part time activity.

The repercussions and trauma of the 1974 NHS reorganisation were still being felt, especially in the public health field, and it was thought that local authorities would require more assistance, "as MOsEH [medical officers of environmental health] now of necessity had a much wider remit and were less able to specialise."²⁰ With a wider range of responsibilities they did not have the statutory basis of MOHs. Moreover as they were not employed by the local authority in which they acted as proper officer for disease notification they had limited authority (Semple and Johnson, 1979, pp. 3–4). In January 1977 the CDSC steering committee supported proposals to attach to the regional public health laboratories epidemiologists with training in and formal links with the CDSC. Regional epidemiologists would be available to assist MOEHs when invited and would be expected to develop links with RHAs.²¹

An epidemiologist was attached to the Newcastle laboratory, and regional epidemiologists were appointed at Oxford in 1978 and Manchester in 1979, who would have formal links with CDSC and contribute to the national resource for surveillance as well as providing local services in their regions.²²

Galbraith's proposals

In 1981, Galbraith made recommendations, which he had made first in 1968 (as had others), to remedy gaps and deficiencies. He proposed that an epidemiology unit responsible for disease surveillance and control be created alongside a planning unit for health care services in a district department of community medicine (figure 1) in the NHS. This would require the appointment of a clinical epidemiologist alongside the district medical officer. The district medical officer would continue to be actively engaged in medical administration and planning and the clinical epidemiologist, with their supporting unit of technical officers, would be responsible for communicable disease surveillance and control within the NHS and linked to regional

²⁰ DN 1/36 PHLSB papers 1981: PHLSB 81/8 Minutes of the CDSC Steering Committee: 04 November 1980, para 13.0.

²¹ DN 1/30 PHLSB papers 1977: PHLSB 77/30 Minutes of CDSC steering committee: 07 September 1977, para 5.3.

²² DN 1/30: PHLSB 77/80 Minutes of CDSC steering committee: 20 January 1977, para 15.2.

epidemiologists. Regionally located epidemiologists would provide the vital link between local epidemiology units and national specialist units and the centre within the NHS, as well as with universities and other national bodies (figure 2) (Galbraith, 1981, 1968).

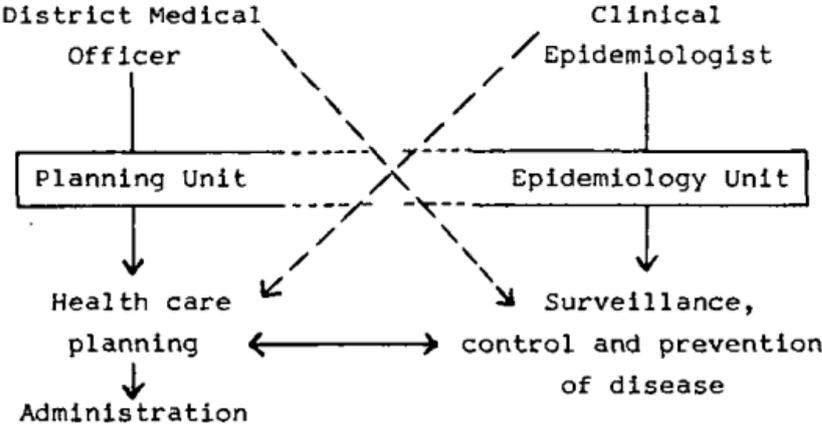


Figure 1. District department of community medicine

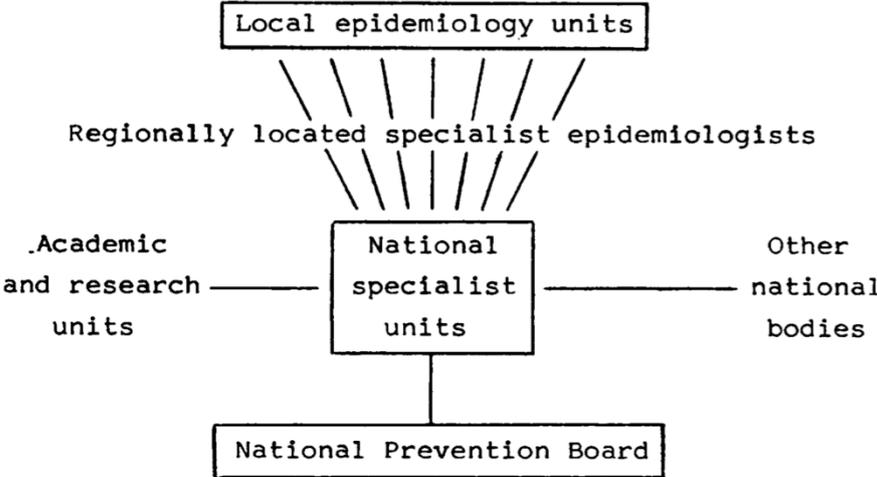


Figure 2. A national public health service

(Galbraith, 1981)

The saga continues

Galbraith’s proposals, however, were not taken up and by 1983 only one full-time regional epidemiologist, in the Oxford region, and one part-time specialist in community medicine (SCM) epidemiologist in Birmingham remained in post, although a regional epidemiologist took up appointment in Wales in May 1983. A scheme to create 10 or 12 SCMs (consultant epidemiologists) located perhaps in regional or reference laboratories was considered by a PHLs working party as part of a strategic review in 1983. It considered that local training was insufficient and that expertise was diminishing, but recommended that regional SCMs (epidemiology) should only be appointed when the need was locally perceived and agreed.²³

²³ DN 1/39 PHLsB papers 1983: PHLsB 83/40 Report of the strategic working party on epidemiology, June 1983, para 4.2, 4.11, 4.15.

The Oxford regional epidemiologist, Richard Mayon-White, would in 1983 describe the post's local functions as (i) consultation by regional colleagues about communicable disease problems; (ii) surveys of the application and efficacy of prevention programmes; (iii) investigation of outbreaks working with or on behalf of the medical officer or community physician; (iv) advice to local occupational health services; (v) training of local community physicians; and (vi) contribution to local research projects.²⁴ Mayon-White himself published with colleagues in Oxford on local research projects and with PHLS colleagues on more general issues.

Despite the potential benefits of regional posts, they faced a number of challenges.²⁵ Firstly, there was local opposition, from MOEHs and community physicians, and more so from PHLS laboratory directors, all of whom saw their particular roles being usurped.²⁶ Secondly, DHSS officials were very cautious, mindful of "Ministers non-approval of Regional Epidemiologist posts in the NHS" and of "the terms of the approved plan, ie not to appoint regional epidemiologists."²⁷

Finally, financial constraints meant that priority needed to be given to increasing the epidemiological staff available at CDSC, continuing the withdrawal from regional posts.²⁸ The posts were snagged in budget freezes and cuts, in particular from 1982, when there was a 2% reduction in revenue spending, and a DHSS review of PHLS, ostensibly as part of a normal process of reviewing non-departmental bodies, would drag on until 1985.²⁹ As part of cost saving measures in April 1984 the Board agreed to delete the consultant epidemiologist post at the Manchester PHLS laboratory, which had been vacant since January 1983, and to transfer the Oxford post to the newly created Division of Epidemiology, which included CDSC.³⁰

The Acheson review in January 1988 proposed that specialist epidemiological services should be provided "at something approximating to the regional level geographically", and that CDSC should be expanded to provide field epidemiology on request to health and local authorities (Acheson, 1988, para. 7.29, 7.31). Although the previous year PHLS had concluded that regional epidemiologists were not a priority given other pressures, on 02 March 1988 PHLS proposed to the DHSS that 14 regional posts in communicable disease epidemiology be jointly funded between PHLS and regions to ensure the linkage to CDSC. It contacted each regional medical officer to explore this proposal for funding, split equally between PHLS and the RHA.³¹ However, not all regions were enthusiastic, and it wasn't certain that there would be sufficient suitable epidemiologists, and plans were modified for four

²⁴ DN 1/39: PHLSB 83/40. Report of the strategic working party on epidemiology, June 1983, para 3.9, 4.3.

²⁵ JA 397/15 PHLS – Board meetings papers + minutes: Conclusions of the committee to review of [sic] epidemiology in the PHLS held on 24 February 1987, 6.2.

²⁶ MH 154/1315 Control of infectious diseases – correspondence and discussions with the Public Health Laboratory Service, 11/112 1A; 8A.

²⁷ MH 154/1315, 232/12/7A, Handwritten note to Mr RP Pole [signature illegible] 21 December 1977; 8A.

²⁸ DN 1/36 PHLSB papers 1981: PHLSB 81/8. Minutes of the CDSC Steering Committee : 04 November 1980, para 13.0; DN 1/39 PHLSB papers 1983: PHLSB 83/38 Minutes of the Board: 28 April 1983, 35; JA 397/15 PHLSB papers: PHLSB 87/39 Conclusions of the committee to review of [sic] epidemiology in the PHLS held on 24 February 1987, section 6.

²⁹ DN 1/38: PHLSB 82/39 Minutes of the Board: 22 April 1982.

³⁰ JA 428/723 PHLSB papers 1984: PHLSB 84/35 Minutes of the Board: 26 April 1984, 34.

³¹ JA 397/15 PHLS – Board meetings papers + minutes: Conclusions of the committee to review of [sic] epidemiology in the PHLS held on 24 February 1987, para 6.4; JA 428/727 Public Health Laboratory Service Board papers 1988: PHLSB 88/9 Minutes of the Finance and General Purposes Committee 17 March 1988; PHLSB 88/10 Public Health in England, appendix 2, para 6.3.

regional epidemiologists jointly funded with RHAs, and two full time regional epidemiologists funded by PHLS.³²

In 1996-97, a regional epidemiology service was also implemented by PHLS under a contract with the NHS Executive of £1.4m covering all eight NHS regions in England, alongside regional epidemiology services in Wales, funded by the Welsh Office. From then on, PHLS' strategic developments included a regional epidemiology service, the "key elements" of which were "surveillance, co-ordination and assistance in the prevention, investigation and management of communicable disease".³³ Regional epidemiologists were built into the new regional groups from 1996 to enhance local surveillance and support CCDCs.³⁴

1.1.2 Conclusion

Notwithstanding public expenditure constraints throughout the 1970s and 1980s there was a strong system and network developing that linked the local and the national. However, the opportunities to establish a regional network of epidemiologists to link the newly formed CDSC in 1977 and from 1974, the proper officers in local authorities, and to complement and supplement the activities of the PHLS network of national and peripheral PHLS laboratories, were not grasped until the early 1990s. This meant that CDSC, with a small number of staff undertaking a wide range of roles and dealing with many different outbreaks and investigations, could only act in an advisory capacity and had insufficient capacity to provide regional support.

If regional epidemiologists had been appointed and had sat on committees with regional haematologists and on local joint consultative committees with clinicians and MOEHs, it is plausible that the risks from infected blood following Galbraith's crucial letter in May 1983 warning about the risks of HIV from infected blood would have been more widely communicated and understood by clinicians.

1.2 Funding challenges

In this section we detail the different aspects of the funding challenges faced by PHLS over the decades which resulted in PHLS being given direct management of its peripheral laboratories from 1993-2003.

1.2.1 Public expenditure cuts and efficiency savings

Health and social services were mainly funded by the hospital and community health services (HCHS) budgets, and the allocations weighted by demographic and mortality data. NHS laboratories received funding from HCHS via health authorities. PHLS, on the other hand, was funded from the centrally financed services (CFS) budgets (which became central health and miscellaneous services from the late 1990s) under the direction of the DHSS and later the DH. The fact that funding for PHLS and NHS laboratories came from different NHS pots was a source of considerable tension between PHLS and

³² JA 428/728 Public Health Laboratory Service Board papers 1989: PHLSB 88/30 Minutes of the Board: 13 Oct 88, at [6]; PHLSB 89/17 Draft strategic plan for 1989 for PHLS epidemiology, para 2.10.2.

³³ JA 397/87 Effect of the NHS review on PHLS's public health surveillance work: 14 January 1994. Letter. Dr Diana Walford to Claire Moriarty, NHSME. Re: Managing the New NHS: Consultation Document. Enclosure: Communicable disease control in the NHS: options for future delivery, para 2.4

³⁴ Public Health Laboratory Service Board accounts 1994, p2; 1998, p3

health authorities. The PHLS board felt that it was “underpinning the NHS to an undesirable extent”³⁵ and indeed for some years in the 1980s the HCHS received higher awards for inflation than the CFS. A DHSS memo in January 1984 laid bare the problem:

“Different funding criteria apply, and these create anomalies in service provision where there is an overlap. The requirement for the PHLSB [Public Health Laboratory Service Board]/CFS, for example, to find substantial savings is likely to create tensions where a health authority does not find itself under similar constraints and will not accept a reduction in service provision and balks at paying more for the same level of service.

“Funding of the HCHS is based on assessments of need nationally ... and regionally ... Funding of the PHLSB is unrelated and, apart from planned capital schemes and revenue consequences, done on an ad hoc incremental/decremental basis. This leads to anomalies and disagreements.”³⁶

The area and regional (“peripheral”) laboratories in the health authorities accounted for 50-60% of PHLS’s annual grant funding from CSF throughout the 1980s. Since PHLS was funded by the DHSS to provide a service to hospitals, laboratory costs lay with PHLS and were not, as the Treasury expected, charged back as a service to the user. “Costs currently lie where they fall”, and as a result there was “constant jockeying by PHLSB to increase its share of the resources at the health authorities’ expense.”³⁷ For its part, PHLS felt that it was spending the majority of its revenue on costs it couldn’t control and “to the detriment of PHLS national and community commitments”.³⁸

Although most hospital work was of little epidemiological interest to PHLS, other work, including tests requested by GPs and local authority EHOs, was essential for PHLS’ national surveillance. However it wasn’t possible in advance to know which tests would be useful or not.³⁹

The NHS had its first year without financial growth in 1975, following the economic crisis of the mid 1970s and the consequent cutbacks in public expenditure (Edwards et al., 1993). Having negotiated to keep the resources freed up by its on-going withdrawal in the 1970s from 10 hospital-based laboratories, PHLS seemed to be in a reasonably strong position in 1980 (see also table 1) (Williams, 1985, p. 95). But following a 4% cut in its revenue budgets for 1982/83, PHLS introduced a vacancy freeze in 1982/83 and 1983/84. On top of budget reductions in 1983/84 the Chancellor announced midyear further cuts as well as 1% cumulative reduction for efficiency savings until 1986/87; in addition the DHSS notified PHLS of 2.2% cuts for 1984/85.⁴⁰

PHLS did occasionally receive earmarked funds – £1.5m for the new CPHL in 1985-86, and £1.1m for the expansion of CDSC from 1988 to 1990, for instance, but this was effectively a part redistribution given savings and cuts imposed on PHLS which had a total income of £35.8m in 1985-86 and £60.7m in 1989-90.⁴¹ PHLS had to battle for its AIDS-specific funding. Having unsuccessfully requested £3.5m for AIDS for 1987/88, in January 1987 it told the Social Services Committee inquiry on AIDS that it

³⁵ DN 1/38: PHLSB 82/78 Minutes of the Board: 28 October 1982, 89.

³⁶ JA 397/58. Public Health Laboratory Service Board – peripheral labs: 23 January 1984. Memo. Douglas R Harris FA2C to Lynne Fosh and Mr Collingwood. Financial arrangements for transferring PHLSB service functions to the health authorities, paras 3-4.

³⁷ JA 397/58. 23 January 1984. Memo. Harris to Fosh and Collingwood, para 2.

³⁸ JA 428/729 Public Health Laboratory Service Board minutes 1990: PHLSB 90/39 PHLS funding in the 1990s, p2.

³⁹ DN 1/34: PHLSB 80/3 Policy for sharing of costs in joint Public Health Laboratory Service/Area Health Authority laboratories. 16 January 1980.

⁴⁰ JA 428/723 Public Health Laboratory Service Board minutes 1984: PHLSB 84/2 Report of the Expenditure Review Group, para 2.

⁴¹ JA 428/729 Public Health Laboratory Service Board minutes 1990: PHLSB 90/39 PHLS funding in the 1990s, p1.

was struggling with its £4m deficit and had had to transfer £500,000 of its own existing resources that year to its AIDS activities such as developing new diagnostic tests, surveillance, and research, coordinated by the AIDS Action Co-ordinating Committee. By July of the same year the DHSS had identified £2.5m revenue funding for AIDS.⁴²

PHLS reported that its annual deficit in the mid 1980s was £4m, and rising costs, especially from salary awards, were again forcing it to make economies, £2m on efficiency and service reductions and £2m on reduction in equipment and repair.⁴³ The DHSS was concerned but cool. In a brief to John Cashman, under secretary at the DHSS and chairman of the 1986 accountability review, it advised on what it understood to be a difficult £2m deficit:

“One interesting area to touch upon is that our crude analysis of manpower trends does not altogether support the picture of spiralling deprivation that is being presented [by PHLS]. ... PHLS are puzzled by it too”.⁴⁴

PHLS threatened to cut 300 staff in 1986, but the threat was regarded by senior DHSS officials briefing the CMO as “something of an Aunt Sally and clearly untenable without real harm to the Service”.⁴⁵ They did consider, though, that there may be scope for some reduction. In a subsequent letter to PHLS, Cashman acknowledged:

“We accept that the PHLS has managed in the recent past through a combination of short term expedience and vigorous expenditure and value for money reviews. ... we are not disputing the need for, or the urgency of, a solution to your financial difficulties. As well as any deficit, the Board is arguing that an additional £1 million is needed for essential development. As we indicated, the prime source of funds for new activities must be to rethink the priority attached to old ones. ...”⁴⁶

Accordingly, detailed plans were again drawn up in July 1986 to close another 10 laboratories. After consideration it was felt to be unwise to withdraw from all 10 laboratories but six were identified for withdrawal. In May 1987 the board heard from Malcolm Harris at the DHSS that it was not to proceed with any closures and PHLS’ revenue cash limit was increased by £2.5m to £39.6m.⁴⁷

Notwithstanding, from then on the PHLSB’s annual cash allocation was subject to a series of cuts and inadequate allowances for inflation, and its core funding was constantly under stress until it was folded into the Health Protection Agency (HPA) in 2003.⁴⁸

1.2.2 Review of PHLS costs, 1982-85

With PHLS struggling financially, the DHSS undertook an internal review of PHLS from 1982 to 1985. A key motivation behind the review was understanding how costs were shared between PHLS and the health authorities in the running of PHLS’ 52 peripheral laboratories (50 of which were jointly

⁴² JA 428/726 Public Health Laboratory Service Board papers: PHLSB 87/4 Memorandum of evidence to the Social Services Committee inquiry on the Acquired Immune Deficiency Syndrome – AIDS. January 1987, appendix B; PHLSB 87/35 Increased cash allocations 11987-88[sic].

⁴³ JA 428/729 Public Health Laboratory Service Board minutes 1990: PHLSB 90/39 PHLS funding in the 1990s, pp1-3.

⁴⁴ JA 397/34 PHLS: Accountability reviews: PHLS accountability review. 27 May 1986. Chairman’s brief, pp5-6.

⁴⁵ JA 397/34 PHLS: Accountability reviews: PHLS accountability review. 27 May 1986: Chairman’s brief, p6.

⁴⁶ JA 397/34 PHLS: Accountability reviews: 01 July 1986. Letter. John Cashman, DHSS, to Dr CE Gordon Smith. Accountability review: finance and resources: 27th May 1986.

⁴⁷ JA 428/726 Public Health Laboratory Service Board papers: 15 May 87. Letter. Malcolm A Harris to Keith Saunders.

⁴⁸ JA 397/16: PHLSB 89/3 Minutes of the Finance and General Purposes Committee 08 December 1988, at [8].

managed by PHLS and NHS hospitals), comparing this to the 320 or so NHS hospital laboratories in England and Wales in or near district hospitals managed by the NHS under health authority administration. It went into some detail about what might be done to secure PHLS' income so that it could carry out its public health function.

In practice it proved extremely difficult to disentangle NHS and PHLS costs because staff, facilities, and laboratory space were shared and ad hoc pragmatic arrangements had grown up over time. So in the end the solution was one of convenience. When the review finally reported in May 1985 its main recommendation was that the peripheral laboratories and their associated budgets be transferred from the DHSS to health authorities. The DHSS argued that there was no need to centrally fund and administer an independent network of laboratories that mainly provided services to health authorities, and not only could savings be made if PHLS no longer ran the network, but the flow of data to PHLS could be guaranteed.⁴⁹

The draft review recommendations met with widespread opposition from public health bodies when it circulated for comment - these included professional bodies, trades unions, royal colleges, scientific, industry, and consumer bodies, government departments, local authorities, and regional medical and scientific officers (see appendix 1 for the draft consultation list).⁵⁰ It was seen as an attack on PHLS. The recommendations had failed to articulate and reflect the purpose and workings of the PHLS model of centrally coordinated peripheral laboratories. In a letter to the chief medical officer (CMO), Donald Acheson, in September 1985, the Royal College of Pathologists noted that "adverse comments on ... the proposal that the administration and funding of peripheral laboratories should be transferred to the NHS have been features common to every submission to the College" in response to the consultation on the review. "With the ever present threat of outbreaks ..., with the risks of importation of exotic viral disease, and with the advent of newly recognized infections ... it is important that PHLS peripheral laboratories continue to collect microbiological information of epidemiological importance and are provided with strong centrally organized support."⁵¹

The PHLS chair, Gordon Smith, had also stated that

"NHS microbiological laboratories lack interest and impetus toward epidemiology and prevention and have prior and pressing requirement to meet clinical needs ... Epidemiological work of national interest would compete poorly for funds at District level".⁵²

The two professional advisers to the review, Prof Ian Phillips of St Thomas' Hospital Medical School (a future member of the PHLS board) and Dr Robert Blowers, former director of PHLS Middlesbrough and chair of a PHLS quality control committee in 1970, wrote in October 1984 that they "were surprised not to have been asked about many important professional topics". "Transfer is highly undesirable," they continued. "Microbiology is the only hospital service that provides information for the immediate benefit of the population as a whole and the PHLS peripheral laboratories, even if in a District Hospital, have a particular duty to do so." They drew attention to the important role played by "epidemiologically motivated microbiologists in hospital laboratories" who were able to maintain general microbiological skills and to gain a knowledge of patterns of infection in the community at large, maintaining both patient-management and epidemiological roles. They also noted that the

⁴⁹ JA 397/25 PHLS: review 1982 of staffing, functions, and efficiency, section 4, The peripheral laboratories of the PHLS (the regional and area laboratories).

⁵⁰ JA 397/20 PHLS: review 1982 of staffing, functions, and efficiency: May 1985. Review of the PHLS consultation.

⁵¹ JA 397/27 PHLS: review 1982 of staffing, functions, and efficiency. Letter from MG Rinsler, Registrar, Royal College of Pathologists, to Dr ED Acheson, CMO, 04 September 85, p1.

⁵² DN 1/38: PHLSB 82/62 Review of the functions and organization of activities of the Public Health Laboratory Service. 28 October 1982, p2.

recommendation for transfer had made no attempt to weigh “the disadvantage of putting an important component of preventive medicine under the control of 52 District Authorities instead of one epidemiologically orientated authority; nor are there any suggestions for sorting out the complexities that would inevitably arise. ... The consequences of transfer to preventive medicine in England and Wales would be disastrous.”⁵³

Fortunately for PHLS, it had a very active and powerful chairman of the board, Dr Charles Gordon Smith, who reported directly to the secretary of state. Appointed in 1973, he was dean of the London School of Hygiene and Tropical Medicine, had been director of the Microbiological Research Establishment at Porton Down, and while chairman was also at different times president of the Royal Society of Medicine, deputy chair of the Wellcome Trust, and chair of a WHO research strengthening group on tropical diseases (Luniewska, 1991). In August 1985 he felt able to write to secretary of state Norman Fowler about the review to complain of “the flimsy arguments and the lack of understanding of the problems on which this ill-founded proposal rests. Frankly, it is the Board’s view – and that of others who are well informed – that the Report totally fails to justify such a sweeping change to a major national resource.”⁵⁴

In October 1985 Fowler, perhaps in part mindful of PHLS’ large role in the developing HIV/AIDS response, and in part responding to the PHLS board, decided not to implement any of the review’s recommendations.⁵⁵ Civil servants felt that their actions had been misunderstood by opponents since they had been trying to save PHLS from financial insecurity. They understood Fowler to have made a political decision, and he had made clear that discussions with PHLS on the matter should continue.⁵⁶ But for the time being they could not see how to proceed within the government’s overall policies of marketisation which was now the direction of travel for public services.⁵⁷

1.2.3 Preparing for the internal market, 1986-1991

Although health authorities were treating more patients, the increased costs of doing so were shared across a number of services including pathology laboratories. Demand was going up year by year but PHLS had experienced heavy cuts. If the health demand was generated by health authorities, why weren’t they funding it instead of getting it on the cheap was the question asked by both the PHLS and civil servants.⁵⁸

The PHLS board itself remained concerned that too much PHLS resource, which should have been used for national public health, was being drawn into diagnostic work. Health authorities were challenging the charges and were refusing to pay for the extra diagnostic tests requested by clinicians and GPs, so it seemed to the board that PHLS was continuing to haemorrhage resources to subsidise

⁵³ JA 397/19 PHLS: Review 1982 of staffing, functions, and efficiency. Report of the DHSS Review of the PHLS. Comments of professional advisers: Dr R. Blowers and Prof I. Phillips. 05 Oct 84, pp 1, 4-5, 7-8.

⁵⁴ JA 428/724 PHLSB papers 1985: PHLSB 85/47 Report of the DHSS review of the PHLS, appendix 2.

⁵⁵ JA 428/724. Public Health Laboratory Service Board papers 1985: PHLSB 85/81 Letter from Norman Fowler to Dr CE Gordon Smith, 17 October 1985.

⁵⁶ JA 397/58 Public Health Laboratory Service Board – peripheral labs: 04 November 1985. Memo. CW France to Dr E Harris. PHLSB finances.

⁵⁷ JA 397/58 Public Health Laboratory Service Board – peripheral labs: 13 November 1985. Memo. John H James to Mrs Banks. PHLSB: funding for NHS work.

⁵⁸ JA 397/58: Finance 86/6. Appendix B. Amended draft 16 January 1986. Public Health Laboratory Service Board - Funding of the peripheral microbiology laboratories, p1; 18 November 1985. Memo. RF Tooher to Mr Harris. PHLSB peripheral labs: funding for NHS work.

health authorities.⁵⁹ This was probably an exaggeration. The net cost to PHLS of the peripheral laboratories in 1986 was £15m of its £35m annual expenditure, while the NHS paid the remaining £13m of their costs.⁶⁰

In May 1986 the NHS Management Board (NHSMB) agreed a complicated solution. The PHLS would retain a proportion of its current direct grant to cover central public health functions, including work for local authorities. A substantial proportion of the 50-60% of PHLS' income that was for the peripheral laboratories would switch to the HCHS budget allocation for the RHAs, which in turn would contract with the PHLS annually for services within each region.

RHAs would have to pay for any increase in routine diagnostic work requested by the district health authorities (DHAs). The idea behind this arrangement, which could in time be expanded to charging per test, was that the NHS tests, like other NHS spend, would be funded from HCHS budget.⁶¹ RHAs would contract with the PHLS annually for services within each region through service level agreements. Civil servants considering the matter didn't discuss what the likely share of costs would be.

These proposals again met with considerable resistance from all quarters. Clinical and medical microbiologists felt they should have been consulted.⁶² NHS laboratory consultants considered that their authority would be surrendered to PHLS. The Community Medicine Consultative Committee and the British Medical Association wrote in September 1987 that funds for vital public health work would be subsumed into RHAs' overall budgets and become subject to NHS financial constraints.⁶³ Health authorities might turn away from PHLS for those items of diagnostic work that cost less, irrespective of whether PHLS was efficient and cost-competitive, because PHLS could not set separate prices on the dozens of different types of work.⁶⁴ Regional treasurers pointed out that the planned solution for PHLS was unlikely to work simply because health authorities would not necessarily wish to continue pay at their present rates, let alone pay for extra, and that PHLS would not be in a position to bring its costs down to enable successful negotiations.⁶⁵

In August 1987 the NHSMB requested that a steering group establish how to transfer NHS staff to PHLS laboratories so that PHLS could control costs directly and therefore be able to charge health authorities. In September of the following year it had to accept that management information on staffing and on pathology costs were not sufficiently understood, and PHLS would continue to be funded centrally for the revenue costs of increased diagnostic workload for the time being.

⁵⁹ JA 397/14 PHLSB papers: PHLSB 86/35 Minutes of the Board: 24 April 1986, 27(b); JA 397/85: 12 April 1990. Memo. Miss R Dora Pease to Mrs Baxter, NHS Bill: management of PHLS peripheral laboratories, para 4.

⁶⁰ JA 397/58: 12 May 1986. Memo. MA Harris HS1 to Mr Podger. Public Health Laboratory Service (PHLS) Funding - Financial responsibility for microbiological laboratory service: enclosure, para 4.

⁶¹ JA 397/58: 12 May 1986. Memo. MA Harris HS1 to Mr Podger. Public Health Laboratory Service (PHLS) Funding - Financial responsibility for microbiological laboratory service: enclosure, para 8; JA 397/15: PHLSB 87/52 Public Health Laboratory Service Board corporate plan 1987, p25; JA 397/58: 01 March 1988. Memo. Matthew A Harris to Dr Susan Lader, Mr R Brown. PHLS diagnostic services.

⁶² JA 397/58: 06 January 1987. Memo. Martin Staniforth to Paul A Brunning. Extract from Minutes of Council, Healthcare Financial Management Association, 11.12.86

⁶³ JA 397/38/1 Public Health Laboratory Service Board – new arrangements for diagnostic work for NHS: 09 September 1987. Letter. MH Lowe, under secretary BMA, to Dr EL Harris Deputy CMO. Public Health Laboratory Service.

⁶⁴ JA 397/38/1 Public Health Laboratory Service Board – new arrangements for diagnostic work for NHS: 03 August 1987. Memo. G Harris to Mr M Harris. PHLSB: new funding arrangements.

⁶⁵ JA 397/58 Public Health Laboratory Service Board – peripheral labs: 01 March 1988. Memo. Matthew A Harris to Dr Susan Lader, Mr R Brown. PHLS diagnostic services.

1.2.4 The internal market

Peripheral laboratory services under PHLS management, 1993-2003

Under the internal market established by in the NHS and Community Care Act 1990 PHLS and peripheral laboratories would now become the providers of diagnostic tests, and health authorities would be the purchasers. Providers were to cost their services and charge the purchasers, making neither a profit or a loss. In the event, implementation was to prove far from simple.

PHLS board secretary Keith Saunders wrote in February 1990 to J Charles Dobson, the senior official dealing with PHLS in the DH, that PHLS board was confident that it would “be able efficiently to discharge its functions in the diagnosis, surveillance and control of infectious diseases, within the framework of the Government’s White Paper”. However, safeguards would be necessary to protect the public health, and Saunders reminded Dobson that the white paper noted the “the public health function of the PHLS is a classic example of a service whose value to the public as a whole exceeds its value as perceived by individual customers”. PHLS board insisted that it solely should manage the area and regional laboratories. Although it would recover the costs of routine diagnostic work from health authorities, it would still require Department of Health funding for national and community work, including reference laboratories and CPHL and CDSC.⁶⁶

And so the department recommended to Kenneth Clarke, secretary of state for health, in August 1990 that PHLS secure sole management of the laboratories, which in turn would contract with health authorities to charge them the full cost of diagnostic tests.⁶⁷ Laboratories would have a single line of management to the PHLS board, and health authority staff would transfer to PHLS. PHLS services would be provided on a contractual basis. PHLS (the provider) would sell diagnostic tests to hospitals, GPs, and local authorities (the customers or purchasers) and possibly even to itself. PHLS was also to be a purchaser of surveillance information from the same organisations, as well as of laboratory space and support services from the host hospitals (the costs of which would themselves inform the cost of the tests). It would also contract with the DH for various public health functions.⁶⁸

In August 1990 parliamentary under-secretary of state for health, Stephen Dorrell, agreed in principle that the peripheral laboratories should be under the sole management of PHLS.⁶⁹

From their different perspectives the PHLS board thought that the transfer of peripheral laboratories would provide protection from the market, while for the Department of Health it would enable their participation in the market. By 1993 PHLS had negotiated to take control of all the 52 shared laboratories, providing services to health authorities on a contractual basis.⁷⁰

⁶⁶ JA 397/84: memo from Keith Saunders to J Charles Dobson, 20 February 1990. Future arrangements for the funding of the Public Health Laboratory Service, sections 2, 3.

⁶⁷ JA 397/85: memo, 22 March 1990 R Dora Pease to Mr Heppell and Mrs Shirley-Quirk, OPS/SofS; memo, 21 August 1990, J Gordon Brown to J Charles Dobson PHLS - future funding and management.

⁶⁸ JA 428/730 Public Health Laboratory Service Board minutes 1991: PHLSB 91/15 Audit Commission. The pathology services: a management review. Attachment to item 5: PHLSB single management of PHLS area & regional laboratories February 1991. EL(91)25. Diana Walford, medical director NHSME, to regional managers of RHAs, DHAs, SpHAs, FHSAs.

⁶⁹ JA 397/85: memo, J Gordon Brown to J Charles Dobson, 21 August 1990: PHLS - future funding and management

⁷⁰ Public Health Laboratory Service Board accounts, 1994, p1; JA 397/81/1 PHLS board meetings papers and minutes: Attachment to item 5: PHLSB single management of PHLS area & regional laboratories February 1991. EL(91)25. Diana Walford, medical director NHSME, to regional managers of RHAs, DHAs, SpHAs, FHSAs .

In April 1997 the peripheral laboratories were formed into nine groups, and two centres at Colindale (CDSC and CPHL).⁷¹

However, control of PHLS peripheral laboratories would be rapidly undermined over the next decade by the impact of the internal market and the switch of around half of PHLS income from grant funding to HCHS where an increasing proportion of income would now be derived through market contracting.

Unbundling costs of PHLS and NHS laboratories

In 1991, in the first of three reports on pathology services, the Audit Commission described the difficulty laboratory managers faced in getting to grips with the complexity of pathology costs, not just in PHLS but in the 1,200 NHS laboratory departments in England and Wales. Estimation of the full cost of these services was not straightforward, because PHLS, NHS, and indeed university laboratories shared laboratory space, resources, staff, and equipment (Audit Commission, 1991).

A DH letter written to directors of finance in health authorities and NHS trusts in January 1993 noted that PHLS, having received staff transferred from the NHS, was required

“to unravel the old cost-sharing arrangements and put units into a position where they know, and are funded to meet, the full costs of the level of service they have had in the past.

“Only when this second step has been completed will units be in a position to review their service requirements and prepare contracts.

“The task is to identify the full cost of the service provided by each PHL, including a share of hospital overheads, compare the full cost with the contribution paid by the host unit in the past, and make adjustments so that each unit is funded to meet those costs from a future date.”⁷²

The need to unbundle and separate out the staff, overheads, and costs of diagnostic services as part of the internal market undid decades of carefully established working arrangements within the NHS, hindered the flow of necessary public health information to PHLS, and introduced an enormous market bureaucracy.

Capital charging

An example of the complexity of the task was costing overheads for tariffs and specifically the requirement to introduce capital charging as part of the internal market. For the first time in the history of the NHS all trusts had to pay an annual charge on their land, buildings, and equipment that was subject to depreciation. The charge was calculated at current capital cost and not historic costs. This charge had to be paid from their annual income and was returned to the Treasury via the health authority and then the DH. These charges particularly disadvantaged laboratories where there had been recent capital investment and the asset value was high. This was especially the case for new build under the private finance initiative (PFI), where there was an additional PFI unitary charge to be paid from revenue in addition to a capital charge on assets retained by the NHS.⁷³

⁷¹ Public Health Laboratory Service Board. Accounts 1994-95. House of Commons 21 May 1996, pp1-3; Public Health Laboratory Service Board. Accounts 1995-96. House of Commons 28 February 1997, pp1-3; Public Health Laboratory Service Board. Accounts 1996-97. House of Commons 09 March 1998, p2.

⁷² JA 397/98: January 1993. Annex to FDL(93). Contracts with Public Health Laboratories, at [5-7].

⁷³ JA 428/730 Public Health Laboratory Service Board minutes 1991: PHLSB 91/32 Finance and General Purposes Committee 12 September 1991.

While the block grant that PHLS received from CSF for central services covered the notional capital charge in full, peripheral laboratories had to first estimate and then build their capital charge into the prices or tariffs that were being negotiated for services.⁷⁴ But while PHLS had direct management of the laboratories, it did not own the estate of those laboratories belonging to the NHS trusts. Each NHS trust had to pay its region a capital charge for the laboratory estate. A portion of that capital charge passed to PHLS, which in turn included it in its prices for contracts with the region.⁷⁵ In addition, because of the different conditions of the capital estate and equipment there was enormous variation in the amount of capital charges to be paid as part of the overhead costs in the tariffs such that PHLS and the RHAs could not agree contracts for 1993-94. This was because PHLS was refusing to bear a share of all the overheads that host units were attempting to pass on to them. By November 1992 PHLS had agreed the hospital overheads of only four of its 48 host hospitals, and was refusing to pay some, for instance in the North West RHA.⁷⁶ Capital charging increased the complexity of negotiations between PHLS and the NHS. For example, it would still be necessary, with PHLS having costed its service, for hospitals to understand what their costs had been so that they would be fully refunded.⁷⁷

A further twist came in trying to calculate charges for services to purchasers other than the health authorities to which they were to pay capital charges. These included GP fundholders (GPFHs). PHLS did not know what charges were being passed on to GPFHs, and complained that its laboratories were being undercut, in breach of NHS Management Executive rules against cross-subsidisation and marginal pricing.⁷⁸

Complex contract negotiations and lack of standardisation

Although PHLS laboratories made up just 48 of the 378 or so hospital laboratories in England,⁷⁹ they now had to negotiate contracts with hundreds of health authorities, GPFHs and local authorities, and even laboratories. A further difficulty was the absence of a standard contract, which led to huge variation in contracts and widespread differences and inconsistencies in charging arrangements, as pointed out by David Flory, chief executive of Newcastle and North Tyneside Health Authority, in his 1999 financial review of PHLS for the DH.⁸⁰ He made recommendations regarding the need to improve the quality and skills of PHLS staff carrying out negotiations for 300 or so contracts, and felt there should be a national framework with the NHS Executive and service agreements made directly with health authorities and their primary care groups, or with NHS regional offices.⁸¹

⁷⁴ JA 397/83 Effect of the NHS Review on PHLS public health surveillance work – options & proposals: 18 October 1989. Memo. RJ Peters to SV Masters NHSME. Capital charges: NHS fringe bodies.

⁷⁵ JA 397/84 Effect of the NHS Review on PHLS public health surveillance work – options + proposals 02 August 1990. Memo. Mr RJ Peters to Mr V Green etc. Capital charges.

⁷⁶ JA 397/98 PHLS – contracts with health authorities: 06 November 1992. JG Brown to J Charles Dobson. Meeting with PHLS on 10 November: contracts; 19 November 1992. Letter. JC Dobson, NHME to regional directors of finance. Contracts with public health laboratories (PHLS) – paper for RDFs meeting – 25 November; Enclosed: Contracts with public health laboratories, para 5.

⁷⁷ JA 397/98 PHLS – contracts with health authorities : January 1993. FDL(93). JC Dobson to directors of finance – RHAs, DHAs, SpHAs for the London PG teaching Hs, NHS Ts, PHLSB. Contracts with Public Health Laboratories, para 5.

⁷⁸ JA 397/98 PHLS – contracts with health authorities: 28 October 1992. Letter. Sharon Van Turnhout to J Gordon Brown. Estimates of capital charges; 02 December 1992. Letter. J Gordon Brown to Don M McGregor. Undercutting on NHS contracts; 19 November 1992; Letter. JC Dobson, Finance and Corporate Information Directorate, NHME to regional directors of finance. Contracts with public health laboratories (PHLS) – paper for RDFs meeting – 25 November, enclosed: Contracts with public health laboratories.

⁷⁹ JA 397/58: 21 Apr 86. Handwritten memo. Peter Lister to Mr Tooher. PHLS / NHS / Environmental health work.

⁸⁰ JA 397/211: email, 15 February 2000, John Bywater to Bryony Enser: PHLS Contracts.

⁸¹ Public Health Laboratory Service Board accounts, 2001, p12.

When the new system of contracting came into effect in the second half of 1992 the 52 peripheral laboratories had between them approximately 668 “customers” to contract with. These included DHAs, GPFHs, hospitals, and trusts. For instance, Newcastle PHL, based at Newcastle General Hospital, had 17 customers including Newcastle Health Authority where it was based, 11 DHAs, a mental health trust, an acute trust, a community health trust, and a GP trust and GPFH. Tooting PHL, on the other hand, at St George’s Hospital, had nine customers including Lambeth HA, Merton & Sutton Trust, Royal Marsden Hospital, and a GPFH in Wandsworth.⁸²

Although local authorities were not obliged to use PHLS laboratories, they generally did so because of the high quality of the work and because they were not charged. In 1992 about 4% of the peripheral laboratories’ workload was for environmental health departments, which enforced public health legislation. The DH considered it reasonable that PHLS not charge for work that stemmed from disease outbreaks or that it had other specific funding to undertake, and it derived public health data from the samples it tested. However, from 1992-93, while it continued to provide for free the services it had been doing up until then, it began to charge for any additional work, for which it would receive no DH funding.⁸³

This angered local authorities, which had barely been consulted, and puzzled PHLS’ own laboratory directors. The director of the Chelmsford PHL wrote to the chief environmental health officers he worked with that

“it seems that this laboratory will be able to provide a “free” service for each EHD [environmental health department] up to the level of activity of that EHD for the FY 91/92. Above that level of activity, we will have to charge. ... There is awareness at national level that there is an intrinsic unfairness in these arrangements. EHDs which have historically sent few specimens, perhaps as a result of underfunding, will have to bear an extra financial burden if they need to increase their activity levels in response to new legislation.”⁸⁴

Impact on PHLS income

From 1993 onwards PHLS income would dramatically change. Its central grant allocation from CSF for area and regional (“peripheral”) laboratories in the health authorities would be reduced by over half and PHLS would be required to generate income via the HCHS budget from contracts for services to RHAs for its peripheral laboratories and from commercial income and research funding (see figure 3 and appendices 2, 3).

Whereas throughout the 1970s and on into the 1980s, the majority of PHLS’ income came from government grants, by 1993, when PHLS completed the transfer of all peripheral laboratories to PHLS management, government grant for PHLS peripheral laboratories was redirected from CSF to HCHS allocations via health authorities. For example, government grant as a proportion of PHLS income was 87% in 1984-85, falling to 49% in 1995-96 and 40% in 2001-02. Total income from rechargeable

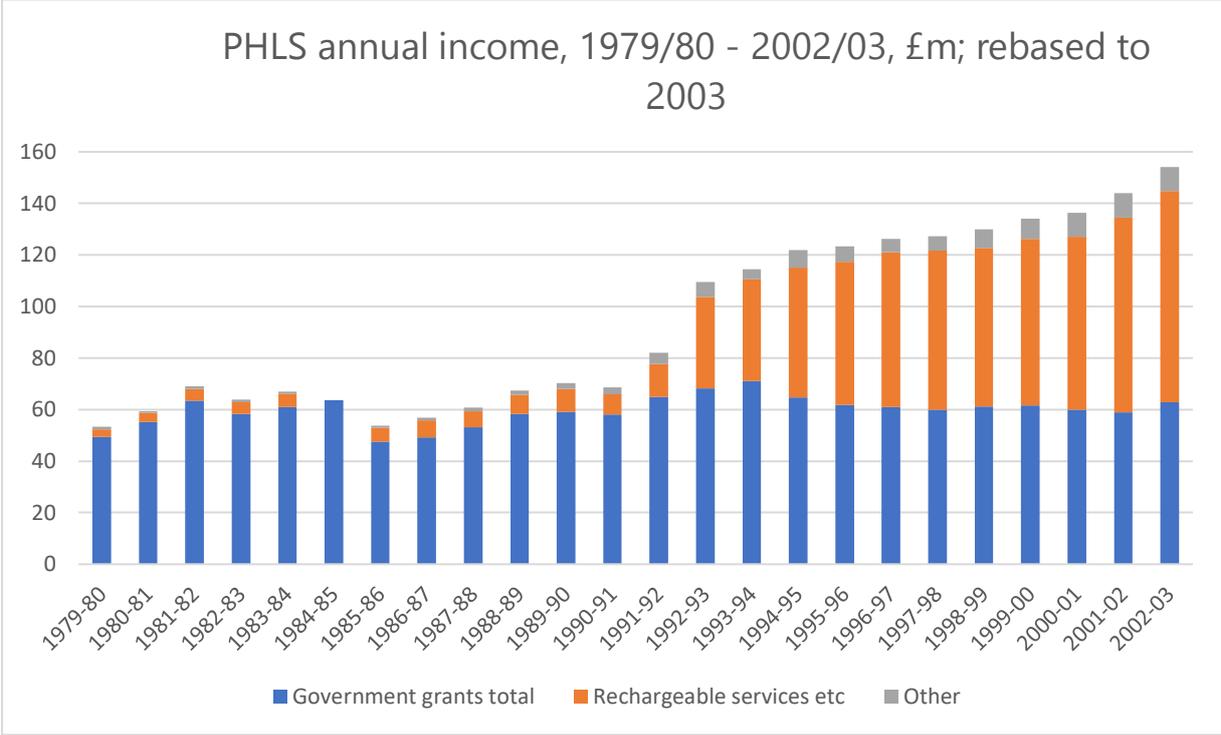
⁸² JA 397/98 PHLS – contracts with health authorities: 27 October 1992. Memo. JG Brown HEF(A) 1B to Mr Harris FCIA3 & Mr Dobson FCIA2. PHLS contracts with the NHS.

⁸³ JA 397/90 PHLS – work for local authorities: 02 July 1992. JG Brown HEF(A)1B to Mr Kendall HEF(A)1 & Mr Armstrong PS/PS(H). Public Health Laboratory Service - contractual relationship with environmental health departments; 25 September 1992. Letter. JG Brown to Association of District Councils, Association of Metropolitan Authorities, Association of London Authorities, The London Boroughs Association, The Institution of Environmental Health Officers. Proposals for the future relationship between environmental health departments and the Public Health Laboratory Service; 11 November 1992. Letter. Dr RE Tettmar, director PHLS, to all chief environmental health officers. Financial arrangements for PHLS laboratory support for environmental health departments.

⁸⁴ JA 397/90 PHLS – work for local authorities: 11 November 1992. Dr RE Tettmar to all chief environmental health officers. Financial arrangements for PHLS laboratory support for environmental health departments.

services was 10% in 1985-86 rising to 31% in 1992-93 and once NHS contracting was in place, NHS contracts as a proportion of PHLs income accounted for over 40% in 1993-94 rising to over 50% of all annual income in 2001-02 (figure 3).

Figure 3 PHLs income, 1979/80 – 2002/03



Source: Public Health Laboratory Service Board Accounts 1979-80 to 2002-03
Does not include income for CAMR

PHLS deficits

In 2000 DH officials noted that PHLS claimed it was still “subsidising” NHS microbiology services, by £12m a year out of core funding of £55m.⁸⁵ PHLS was still seeking economies, hoping to be able to keep any savings from the new pathology modernisation programme, but learned that they should be “reinvested locally and not creamed off by ... HMT [the Treasury] or PHLS”.⁸⁶

From 1993-94 onwards PHLS continued to run a small deficit year on year and was under continuous pressure. By its final year, 2002-03, the cumulative deficit was £11m (see appendix 3).

1.2.5 Reduction in number of PHLS peripheral laboratories

In 1986, there were 378 laboratories (including the PHLS laboratories) that made a pathology workload return to the DHSS.⁸⁷ Of the approximately 330 NHS laboratories, in 2001 191 sent reports to CDSC (“HL Deb 19 December 2002, vol 642 cc150-3WA, Public health laboratories,” 2002). In 2003, when HPA was established, there were in England over 330 local clinical laboratories in the NHS and

⁸⁵ JA 397/211 Pathology services review: 15 February 2000 Email, John Bywater to Bryony Enser: PHLS Contracts.

⁸⁶ JA 397/211: email, 20 July 1999, Mike McGovern to John Bywater re: modernisation of path services: phls

⁸⁷ JA 397/58 Public Health Laboratory Service Board – peripheral labs: 21 April 1986. Handwritten memo. Peter Lister MED to Mr Tooher. PHLS / NHS / Environmental health work.

46 PHLS laboratories, along with the seven PHLS reference laboratories at Colindale (Department of Health, 2002a, para. 5.52, 5.55).

Table 1 shows changes in number of PHLS laboratories from 1962 to 2002 and contraction over time. However, after PHLS abolition in 2003 it is not possible to track what has happened to all of the PHLS peripheral laboratories due to changes in definition and lack of consistency in reporting.

Table 1 PHLS network of laboratories

	Reporting year ending										2007 2010 2012		
	1962	1967	1972	1977	1982	1987	1992	1997	2002	HPA (2003-13)			
Central laboratory - reference & Special labs	10	11	11	12	9	9	9	7	7				
Peripheral / constituent labs	59	61	62	55	52	52	52	49	46				
Regional and collaborating NHS labs										44	32	22	
CAMR, Porton Down - research					9	9	4						
Total	73	77	78	70	75	71	66	59	55	44	32	22	

Source: Public Health Laboratory Service Board report and accounts 1961-62 to 2002-03; Health Protection Agency report and accounts 2003-04 to 2012-13
Definitions do not remain standard in HPA accounts

Note: Although in 2019 the NHS pathology networking state of the nation report said that a national blood transfusion network was making progress, most blood testing is carried out within the geographical networks (NHS Improvement, 2019, p. 9). A separate reference service, the Blood Borne Virus Unit (BBVU) is based at Colindale and jointly run by the UKHSA and NHS Blood & Transplant (Public Health England, 2020).

1.2.6 Conclusion

The PHLS network of peripheral laboratories was established on the basis of core grant funding and close integration with NHS laboratories, not market competition. In 1993 in response to the introduction of the internal market PHLS took full management control of the public health peripheral laboratories and staff within them and agreed to implement market contracting, which proved to be extraordinarily complex. The half to two thirds of PHLS funding for “peripheral” laboratories would switch from central CFS funding to HCHS funding via RHAs. PHLS would have to pay an overhead for use of its peripheral laboratories, which would be recouped through contracts with RHAs to provide services. Income would be further supplemented with commercial work and research funding. The numbers of peripheral laboratories decreased from the mid 1980s onwards.

SECTION 2 NHS AND PUBLIC HEALTH REFORM 1997 ONWARDS

From 1997, the incoming Labour government ushered in a major reorganisation of both the NHS and public health system in England, including communicable disease control, following a series of policy papers and legislation (see table 2).

Table 2 Main policy papers and legislation reorganising the NHS and public health 1997-2004

Policy papers*	Legislation
The new NHS: modern, dependable, Cm 3807, 1997	NHS (Primary Care) Act 1997
Saving lives: our healthier nation, Cm 4386, 1999	NHS (Private Finance) Act 1997
The NHS Plan : a plan for investment, a plan for reform, Cm 4881-1, 2000	Health Act 1999
Shifting the balance of power within the NHS: securing delivery, 2001	Health and Social Care Act 2001
Getting ahead of the curve: a strategy for combating infectious diseases (including other aspects of health protection), 2002	NHS Reform and Health Care Professions Act 2002
	The National Health Service (Functions of Strategic Health Authorities and Primary Care Trusts and Administration Arrangements) (England) Regulations 2002
	Health and Social Care (Community Health and Standards) Act 2003
	The Health Protection Agency (Yr Asiantaeth Diogelu Iechyd) (Establishment) Order 2003
	Health Protection Agency Act 2004

* Department of Health, 1999, 2001, 2002

PCTs became responsible both for providing or securing services to meet local needs, and for health promotion and improvement. This included public health surveillance, population screening, and needs assessment, but strategic health authorities were responsible for ensuring these activities were carried out across local communities. Accountability for communicable disease control and environmental hazards became a function of public health groups located in nine regional offices of government led by a regional director of public health (DPH) (Department of Health, 2001). From October 2002, PCTs were empowered to exercise the secretary of state’s power to provide a microbiological service, and received onward notification of infectious diseases from proper officers.

The 1999 white paper stated that the CMO, Prof Liam Donaldson, had been asked to “develop a strategy for tackling communicable disease”. His report, *Getting ahead of the curve*, was not published until 2002. It considered that the current system of laboratory provision was “fragmented” and that laboratories should be clearly categorised into those providing routine diagnostic microbiology work and those providing public health, specialist, or reference functions. It recommended that PHLS be broken up. Its specialist and reference laboratories would be transferred to a new organisation, while all peripheral laboratories providing routine clinical diagnostic work would be managed and commissioned by the NHS (Department of Health, 2002a, p. 139).

The new organisation was called the Health Protection Agency (HPA), first established by order as a special health authority in England and Wales on 1 April 2003, and then by statute as a UK-wide non-departmental public body from 2005, and the central, specialist, and reference functions of PHLS absorbed into it. For the first time, controlling the spread of infectious disease became the statutory function of a centralised public body.

Whilst a special health authority, the HPA was directed by the government “to conduct surveillance, and develop and improve existing systems of surveillance, of infectious disease and chemical and radiation hazards; and “to co-ordinate data from systems of surveillance relevant to the protection of public health” (Department of Health, 2003, para. 20 footnote 1). The functions of the UK-wide HPA were governed by statute, and they varied between the different parts of the UK. In England and Wales its functions were to protect the community (or any part of it) against infectious disease and other dangers to health, including chemical, radiological, and bioterrorist threats, and to prevent the spread of infectious disease. It took on responsibility for providing or commissioning the functions that had since 1946 been the responsibility of PHLS, in particular CDSC, CPHL and other specialist and reference laboratories, and of CAMR. PHLS’ regional epidemiologists and specialist and public health microbiologists, including those in the reference laboratories, were transferred to it, as were NHS staff responsible for control of infectious diseases and for health emergency planning. The HPA also brought in functions related to protection from chemicals and poisons (the National Focus (Chemical Incidents), the National Radiological Protection Board, and the National Poisons Information Service) (Department of Health, 2003; Nicoll and Murray, 2002).

In response to recommendations made by the CMO in his 2002 annual report, the establishment, in 2003, of the National Expert Panel on New and Emerging Infections facilitated the integration of data gathering for animal and human health surveillance and strengthened the assessment of potential threats to health from new and emerging diseases, particularly zoonoses. The CMO and the chief veterinary officer considered that this was supported by the foundation of the HPA, which was tasked with aligning more closely information on human and animal health surveillance (National Expert Panel on New and Emerging Infections, n.d.; Reynolds and Donaldson, 2005). Chaired by Chris Bartlett, who had been director of the CDSC, the panel included the chairs of the Advisory Committee on Dangerous Pathogens, the Joint Committee on Vaccination and Immunisation, the Advisory Group on Hepatitis, the Specialist Advisory Committee on Antimicrobial Resistance, and the Expert Advisory Group on Aids among others (Department of Health, 2003, paras. 13–17).

The health intelligence function of the HPA, which accounted for about half of its staff, comprised the National Institute for Biological Standards and Control and three newly created centres - the Centre for Infections, based at Colindale and built on CDSC, CPHL, and the reference laboratories; the Centre for Radiation, Chemical and Environmental Hazards; and the Centre for Emergency Preparedness and Response. The centres for infections and emergency preparedness were reorganised in 2010/11 into Microbiology Services containing central and network laboratories, and Health Protection Services including all other epidemiology and surveillance as well as the local and regional services (Health Committee, 2011, para. 183; Health Protection Agency, 2012, p. 11).

2.1 Abolition of PHLS, peripheral laboratories transferred to local NHS trusts - 2003

PHLS was abolished in 2003. There is no good record as to why the decision to abolish PHLS was taken. But one can only surmise that the different funding streams and complexity of the internal market and market contracting was too burdensome and bureaucratic for health authorities, which

were already negotiating contracts with hospital trusts and their laboratories. So in effect the 1985 DHSS review recommendation came in to play.

As part of the abolition of PHLS a small core of its specialist and reference laboratories were transferred in 2003 to the newly established Health Protection Authority (HPA), which continued to receive direct funding. At the same time the management of the PHLS network of 46 peripheral laboratories carrying out “routine clinical diagnostic microbiology” was transferred to local NHS management in England in NHS trusts (and from 2004, also to NHS foundation trusts). Their funding and commissioning was transferred to the 302 PCTs.

DPHs and their teams were moved to PCTs after health authorities were abolished in the National Health Service Reform and Health Care Professions Act 2002. Along with responsibilities for commissioning diagnostic tests, PCTs took on responsibilities for health authority functions, including health protection, health emergency planning, and infection control in their community facilities (Department of Health, 2001, app. B, paras. 3-4.).

The 28 strategic health authorities newly created in 2002, meanwhile, were responsible for overseeing the implementation of health protection services, working with PCTs, other parts of the NHS, and local authorities. They were to performance manage the local public health function, develop clinical networks, and create and develop a public health network ensuring sound clinical performance and patient safety arrangements. The network would ensure that specialist functions were available to PCTs where it was not effective or economic to provide them in each PCT. The regional DPHs in the nine regional offices would approve the arrangements for each network and oversee their development. The DPHs worked with the strategic health authorities to ensure accountability for the protection of health (including against communicable diseases and environmental hazards) across the region (Department of Health, 2002a, p. 135; Roberts and Haworth, 2002).⁸⁸ In 2006 on the basis of shifting costs from ‘bureaucracy’ to “front line services”, the strategic health authorities were reduced from 28 to 10, (similar to the regional structures abolished in 2002), making them nearly coterminous with the government regional offices and simplifying relations with regional DPHs.⁸⁹ There were now 151 PCTs, about 70% of which were coterminous with a local authority (Hunter and Strang, 2006; Rowland, 2006, pp. 29–30).

So long as the DH allocated ringfenced funding for peripheral laboratories to health authorities and then to trusts, PHLS’ position was relatively safe, especially in the absence of an active independent sector. But ringfenced funding was only for two years until April 2005, after which the budget was subsumed into PCT general allocations. This was despite the additional public health and infectious disease responsibilities they had been given (House of Lords Select Committee on Science and Technology, 2003).

Peripheral laboratories would now have to contend with market forces and compete internally with NHS laboratories for resources. This pragmatic solution to address the problem created by the internal market ignored the crucial role of public health surveillance.

The very limited data in HPA and PHE accounts on regional laboratories show continuing contraction. Of the 44 laboratories in the regional microbiology network, there were seven regional laboratories and 37 “collaborating laboratories” in 2006/07. By 2009/10 the number of collaborating laboratories reported by HPA had decreased to 32 (Health Protection Agency, 2010, 2009, 2008, 2007). In 2016, PHE reported that they had six regional laboratories. In 2022 UKHSA reports that there were just five

⁸⁸ The National Health Service (Functions of Strategic Health Authorities and Primary Care Trusts and Administration Arrangements) (England) Regulations 2002

⁸⁹ The Strategic Health Authorities (Establishment and Abolition) (England) Order 2006

(Public Health England, 2016, p. 4; UK Health Security Agency, 2022, p. 3). PHE and UKHSA do not report on the number of collaborating laboratories.

2.2 PHE and the Health & Social Care Act 2012: central services brought under direct political control

The Health and Social Care Act 2012 fundamentally reorganised the NHS in England and changed yet again the institutional arrangements for public health. In 2013 the HPA was abolished and replaced by Public Health England (PHE). This was established as a non-statutory executive agency of the Department of Health (*Expert report to the Infected Blood Inquiry: public health and administration*, 2022, p. 10), which meant it was not independent as its predecessors had been and its staff were now under direct political control. PHE brought together the functions of 90-100 separate organisations, involving the transfer of 4,500-5,000 staff. These included the HPA, regional DPHs in the strategic health authorities, and the National Screening Committee (Bevan, 2020; Department of Health, 2013; Department of Health and Social Care, 2014). The same Act abolished the 10 strategic health authorities and 151 PCTs. It created 211 clinical commissioning groups, 19 commissioning support units, and 152 health and wellbeing boards. All this was done while attempting to find the first £5bn savings for the Quality, Innovation, Productivity and Prevention workstreams out of a projected (and not achieved) £20bn by 2014-15 (Department of Health, 2013).

These developments, said the Chartered Institute of Environmental Health, left local authorities in the position of “last man standing” for health protection provision, at the same time as facing large cuts to their budgets in separate local government austerity measures. They argued that service level agreements, such as those instituted in 2003 between the HPA and PCTs, were now needed between local authorities and the NHS to ensure the NHS would respond when called on for support (Chartered Institute of Environmental Health, 2012).

In 2016, the PHE National Infection Service was created from the reference laboratories in Colindale as well as six laboratories in London and the regions. A new Strategy for Infectious Diseases was developed but appears not to have been implemented (Bevan, 2020). *Public health surveillance: towards a public health surveillance strategy for England* of 2012 defined surveillance, following the South East and Eastern England Public Health Surveillance Working Group, as

“the systematic regular collection, analysis, interpretation and dissemination of data for a given population to detect changes on patterns of disease or disease determinant with action taken if a predefined criteria or thresholds are met’, or more succinctly as providing the right information at the right time and in the right place to inform decision-making and action-taking (DH PHE Transition Team, 2012, para. 1.2).”

This reductionist view of surveillance fails to recognise that communicable disease control is a system not just a set of data.

Moreover the geographical focus of local health protection services previously neglected was now lost. PHE now had nine sub-regional teams or centres, which reported to seven regions and these were not necessarily coterminous with clinical commissioning groups or 153 local authorities.

The legislative and institutional split between health improvement and health protection meant that PHE’s funding for local authorities would largely be spent on health improvement, eg, in 2019-20, £2.9bn out of the £3.8bn total net expenditure (Public Health England, 2022), and not for health protection. This is reflected in staffing whereby 38-40% of PHE staff were involved with protection from infectious diseases, and only 18-19% with local centres and regions.

In April 2021, at the height of the covid pandemic, following major criticisms of PHE a new executive agency, the UK Health Security Agency (UKHSA), was established to replace PHE and take on the health protection functions, along with NHS Test and Trace and the Joint Biosecurity Centre, both set up as part of the covid-19 response. Health improvement and healthcare public health functions were transferred from PHE into the Office for Health Disparities and Improvement (OHID), set up within the Department of Health and Social Care (DHSC) in October 2021, and to NHS England and NHS Digital. UKHSA had responsibility for Emergency Preparedness & Response, Infections Research & Development, local microbiology laboratories and infection specialist services, national specialist surveillance and reference laboratories, and regional and local health protection. Screening was split between OHID and NHS England / Innovation (Brodie and Marron, 2021).

2.3 Unclear accountabilities for communicable disease control

Since the internal market each successive reorganisation has resulted in the weakening of the system and organisation of local public health surveillance and CDC and blurring of accountabilities.

In 1993, it was thought that by clarifying the role of the PHLS as a provider, the transfer of the peripheral laboratories to PHLS would solve a problem created by the 1990 act, namely how to charge for PHLS' work. However, officials were also aware that health authorities were not funding all diagnostic tests, and that any attempt to reflect the full costs of the tests would deter the flow of essential surveillance data back to PHLS.⁹⁰

The risks in this new arrangement were well recognised. The Association of Medical Microbiologists and the Association of Clinical Microbiologists noted that to ensure that no epidemiological information was lost, PHLS might require considerable funding, and that this would amount to unfair competition with non-PHLS laboratories.⁹¹ On the other hand the DH, recognising that lower hospital requirements could threaten PHLS' surveillance data, suggested that "the laboratories should be free to adjust their contracts so as to give hospitals a financial incentive to continue referring specimens at the levels required by the PHLS." The internal market may have been undermined. But as a draft memorandum to parliamentary under-secretary of state for health, Stephen Dorrell, noted, "the measures provided for in the NHS and Community Care Act were designed primarily to reform the provision of patient care, not the nationwide monitoring and prevention of disease."

Concern that health authorities facing pressure to fund acute hospitals and clinical services would not prioritise the wider public health functions for public health surveillance from their budgets was already being borne out.

Many laboratories outside PHLS performed a broader diagnostic service than that required specifically for individual patient management. They were pleased to send data to CDSC and in return receive PHLS reagents or free membership of the Colindale-run NEQAS (an educational and quality assessment service).⁹² These laboratories felt it was unfair that there was no support from DH or

⁹⁰ JA 397/85 Effect of the NHS review on PHLS public health surveillance work – options + proposals: 09 April 1990. Memo. R Dora Pease to Mr TS Heppell (deputy secretary DHSS), NHS Bill: management of PHLS peripheral laboratories, para 8.

⁹¹ JA 397/85 Effect of the NHS Review on PHLS public health surveillance work – options + proposals: 28 December 1990. Prof I Phillips, Association of Medical Microbiologists; 25 January 1991. Julian Hodgson, honorary secretary the Association of Clinical Microbiologists.

⁹² JA 397/86 Effect of the NHS Review on PHLS public health surveillance work - options and proposals: 23 October 1992. Memo. Eileen Clifford to Ailsa McGinty, Gail Skinner, Elizabeth Tebbs, J Gordon Brown. Meeting with Royal College of Pathologists on 20 October 1992 at Richmond House.

health authorities for the wider surveillance work. Prof Dick Madeley at the Royal Victoria Infirmary in Newcastle complained in January 1992 that his laboratory had identified about 40% of the isolates of influenza A in England and Wales, but he could not continue with this work if the costs were to be passed on to customers, as he would not get the subsidy from the DH. "Without urgent action an important part of national virological surveillance may crumble and, once lost, it will take literally years to rebuild."⁹³

In a coordinated campaign, many other consultant virologists wrote to the CMO with similar concerns, and met with a sympathetic response from the DH and PHLS, though there was little to be done, except to say that health authorities had a local responsibility for public health.⁹⁴

Guidance issued in November 1993 reiterated that DHAs had the lead responsibility for the public health function in their district, and that the district DPH must provide health advice to local authorities and "ensure that appropriate arrangements are in place for the control of communicable disease ... and that the responsibilities of those involved are clearly defined".⁹⁵ In early 1994 PHLS set up a working party to consider developing new surveillance programmes.⁹⁶

RHAs had a strategic and coordinating role. Regarding data, surveillance was dependent on a free flow of information to CCDCs and the CDSC, and all parts of the NHS should accept this. "This acceptance should be reinforced in the contractual process which in particular should ensure that relevant laboratory test results are passed on in a timely manner to CCDCs and CDSC."⁹⁷ In addition, in March 1994 the CMO, Kenneth Calman, was briefed to advise PHLS that the government intended to place a statutory duty on all laboratories to notify clinical results, although this change was not enacted until 2010.⁹⁸

With each reorganisation concerns were repeatedly raised about accountability and responsibilities in the event of a major incident, as reforms had generated more complexity and blurring of accountabilities. NHS trusts were accountable to strategic health authorities, and foundation trusts to the independent regulator Monitor for laboratory services that had been commissioned (Roberts

⁹³ JA 397/86 Effect of the NHS Review on PHLS public health surveillance work - options and proposals 29 January 1992. Letter. Prof CR Madeley, Dept Virology RVI to Mr J Gordon Brown. Allocation of pathology costs and pricing of diagnostic pathology tests: FDL (91) 127; JA 397/87 Effect of the NHS review on PHLS's public health surveillance work: 26 February 1992. Letter. Prof C R Madeley to Dr David Salisbury, Safeguarding virological surveillance.

⁹⁴ JA 397/86 Effect of the NHS Review on PHLS public health surveillance work - options and proposals 20 February 1992. Memo. Kathie Binysh HP(M) to Dr Elizabeth Tebbs HP(M). Allocation of costs of pathology tests performed for public health purposes.

⁹⁵ JA 397/134 Strategic review of the PHLS 1994 (including CMO evidence): 15 March 1994. Memo. Peter Kendall to Eileen Rubery, Annex A, B3. PHLS Strategic Review Team: 24 March 1994

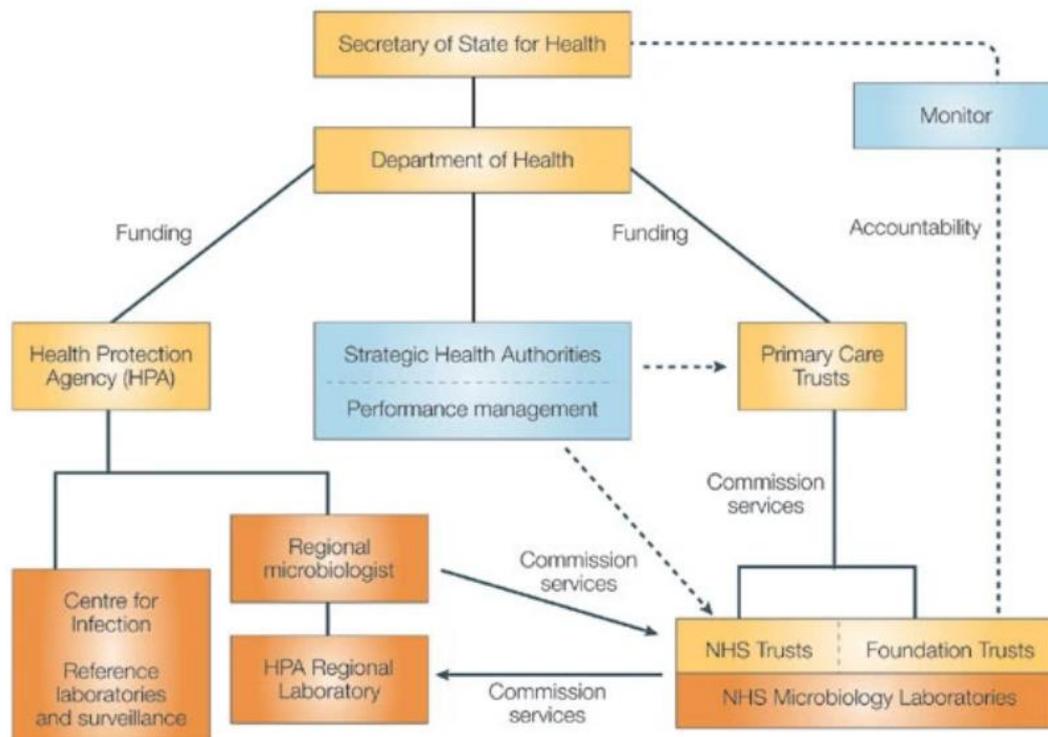
⁹⁶ JA 397/87 Effect of the NHS review on PHLS's public health surveillance work: 26 February 1992, letter from Prof CR Madeley to David Salisbury, Safeguarding virological surveillance; 01 July 1993, letter from Tim Watkinson to J Gordon Brown, Contracts of public health laboratories; NHS Management Executive. HSG(93)56. Public health: responsibilities of the NHS and the roles of others. 24 November 1993: appended: Public health: responsibilities of the NHS and the roles of others. Advice of the committee set up to undertake a review of HC(88)64: annex B, at [30]; 29 November 1993, letter from WF Garman to Dr Kenneth Calman; 24 January 1994, letter from Diana Walford to R White, Correspondence from Professor Dick Madeley.

⁹⁷ JA 397/87 Effect of the NHS review on PHLS's public health surveillance work: 24 November 1993. Circular. NHS Management Executive. HSG(93)56. Public health: responsibilities of the NHS and the roles of others. 24 November 1993. Public health: responsibilities of the NHS and the roles of others. Advice of the committee set up to undertake a review of HC(88)64, Annex B, p7 para 30.

⁹⁸ JA 397/134 Strategic review of the PHLS 1994 (including CMO evidence): 15 March 1994. Memo. Peter Kendall to Eileen Rubery, Annex A, B3. PHLS Strategic Review Team: 24 March 1994

and Haworth, 2002). Figure 4 illustrates the complexity of the commissioning / contracting arrangements across multiple organisations, with multiple lines of accountability in 2005.

Figure 4 The organisation of medical microbiology services in England and Wales in 2005



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(Duerden, 2005)

The House of Lords report *Fighting infection* in 2003 reported concerns over the lack of coordination and communication between different areas of infection control and complex and unclear lines of communication and accountability between organisations (House of Lords Select Committee on Science and Technology, 2003, para. 4.22, 9.6). Carter noted in 2006 that the accountability of PCTs for their contribution to public health functions was not obvious (Lord Carter of Coles, 2006, para. 134). It was not clear what was expected of NHS laboratories, and what additional public health outputs were required – and to be paid for – by the HPA (Dance and Duerden, 2006, para. 1.4-1.6). Cosford and colleagues found in the same year that staff in PCTs, strategic health authorities, and the HPA had different understandings of who was responsible for particular health protection functions and who was currently carrying them out (Cosford et al., 2006). The situation was made worse by the reduced communication between public health specialists in the different organisations (Keeble, 2006).

To address the continuing concern that NHS bodies with an overriding responsibility for patient care, would be unwilling to expend resources on the laboratories' public health function in the face of demands for acute services, a new Inspector of Microbiology post was created in 2004. The person in post was to ensure high quality microbiology services and among other duties to ensure that "all microbiology laboratories providing service to the NHS meet their responsibility for public health surveillance" and to assess surge capacity (Department of Health, 2003, paras. 33–34, p.25). The

Department was also to explore placing “a duty of care” on all microbiological laboratories to report for public health surveillance, though this would not necessarily include sending samples to reference laboratories (Department of Health, 2002a, p. 137; Nicoll and Murray, 2002).

2.4 Centralisation of local disease control

HPA established 35 health protection units to give advice especially in preparation for and during emergencies (Department of Health, 2003, paras. 64–65); the number reduced to 26 by 2007 (Health Protection Agency, 2007, 2004). Many CCDCs moved from health authorities to the HPA and its regional offices. By 2010, 95% of local authorities appointed proper officers from the HPA rather than from local PCTs where directors of public health were located (Department of Health, 2009a, 2010a).

Although PCTs took on responsibilities for health authority functions, including health protection, health emergency planning, and infection control in their community facilities (Department of Health, 2001, app. B, paras. 3-4.), they were increasingly divorced from disease surveillance. In a consultation in July that year on the then draft Health Protection (Notification of Diseases) Regulations, the DH asked, “is there any health protection benefit in Primary Care Trusts receiving from the proper officer of the local authority copies of individual notifications from registered medical practitioners?” Not one of the 151 PCTs responded, although disease notification is the main statutory mechanism for reporting communicable disease. Of the 35 responses which were received from other parties, 20 said there was no benefit. Concerns about the common law duty of confidentiality were used to argue that PCTs should not receive copies of individual notifications unless they were directly involved in managing a case, outbreak, or incident, and the requirement for the proper officer to send a copy of the notifications to PCTs was removed (Department of Health, 2010b, p. 16, 2009b, p. 17).

According to Prof Pat Troop, the HPA’s chief executive, speaking to *The Lancet Infectious Diseases* in July 2003, the aim of HPA was “specialist support”, not actually carrying out all the health protection. Via the strategic health authorities it would build up local and regional networks (Das, 2003). This was in a sense a recognition that any individual PCT would not have sufficient public health specialists to carry out its new public health functions (Evans, 2004). Troop said that funding would continue for the laboratories “so that way we don't lose the good things”, after 2005 when funding was subsumed into PCT commissioning allocations. It would, however, be down to PCTs to decide on laboratory resourcing. The arrangements were confusing to say the least. Health protection agreements would be made via each regional DPH with the PCTs (and their DPHs) and local authorities in the nine regions. Agreements should include extra capacity (“surge capacity”) needed in a disease outbreak. In response to the recommendation of the House of Lords Select Committee on Science and Technology that PCTs provide NHS laboratories with at least the same level of resource for public health work previously received through the PHLS, the DH explained, “We think that this is a better approach to managing the public health activity of NHS laboratories than by their funding” (Department of Health, 2002a, p. 135, 2003, p. 25; Duerden et al., n.d., p. 26; House of Lords Select Committee on Science and Technology, 2003, p. 26).

The lack of clear lines of accountability persisted following the abolition of HPA and the creation of PHE, with the DPH of Havering telling the BMJ that if there was an epidemic “there would be a bit of a question mark over what we would do because it is all a bit free-form” (Vize, 2013).

SECTION 3 FROM MARKETISATION TO PRIVATISATION OF NHS LABORATORY SERVICES THROUGH JOINT VENTURES

The Labour government and its administration continued the policy of establishing costing and pricing models within the internal market in preparation for private sector entry into the NHS. To this end, a Modernisation of Pathology Services Steering Group was established in 1999, chaired by Dame Deirdre Hine, formerly CMO of Wales. She was replaced the following year when she became chair of the Commission for Health Improvement by Henrietta Campbell, formerly CMO of Northern Ireland. PHLs was represented by Dr Philippa White, group director of PHLs East and a consultant microbiologist in Norwich.

The Labour administration stressed that modernising pathology services would be carried out with the independent sector providing facilities, expertise, resources, new technologies, processes, and project management (Department of Health, 2002b). While PHLs could be a partner in funding bids to the first tranche of the pathology modernisation programme, it was not allowed to apply in its own right for funding, the clear preference being for partnerships with private companies. Indeed, PHLs had earned the displeasure of the DH for having “unilaterally proceeded with developments in certain areas without the blessing of customers in DH”, which was regarded as service development rather than delivery modernisation.⁹⁹

The pathology modernisation programme was underpinned by funding of £10m for reconfiguring pathology services. For the 182 bids received only £5m was eventually allocated for 12 projects. Among the bids were three existing projects involving private companies: SmithKlineBeecham (now Quest Diagnostics) provided non-urgent tests to West Middlesex University Hospital from its own facility; Unilabs provided all pathology services for Lister Hospital Stevenage in the hospital facilities; and TDL (see below) provided a full pathology service to Ealing Hospital. In all cases the non-clinical staff were transferred to the private provider.¹⁰⁰

In 2002 the Health Select Committee inquiry into the role of the private sector in the NHS identified about 250 private laboratories in England, but noted that there was little work undertaken by them for the NHS (Health Select Committee, 2002, paras. 140–141). Capital investment in NHS pathology services had been neglected although laboratory re-provision had been included in some PFI projects. In response to the committee’s suggestion that “a variety of models need to be tested” to upgrade laboratories and improve services, the government emphasised the importance of using the independent sector, which had “expertise and resources ... to develop cutting-edge new technologies and tests ... [and] expertise in process re-design, procurement procedures and project management ...” Two of the four large-scale networks it funded, in Lincolnshire and Teesside, were joint ventures with the private sector (Department of Health, 2002b) According to a Royal College of Pathologists discussion paper, “central thinking in the Department was being shaped by policy makers in the Prime Minister’s office and strategists from a variety of sources, including a Canadian company with much experience of configuring laboratory services in North America” (Health Select Committee, 2002, para. 145).

Following the transfer of PHLs peripheral laboratories to the NHS in 2003, the DH’s *Modernising pathology services* of 2004 recommended the creation of managed pathology networks and improved use of new technologies. A follow up paper in 2005 announced the department would establish an independent review to report on “the feasibility of and benefits arising from wide-scale service reconfiguration, innovation and modernisation and involvement of the independent sector” (Lord Carter of Coles, 2006, app. A, D).

⁹⁹ JA 397/211: 29 December 1999. Email. Briony Enser to John Bywater, re: Pathology Modernisation Steering Group; 30 December 1999. Email. John Bywater to Briony Enser, re: Pathology Modernisation Steering Group.

¹⁰⁰ JA 397/211 Pathology services review: Pathology services modernisation; Pathology modernisation programme: review of bids made for the modernisation fund 1999/2000.

The review was chaired by Lord Carter of Coles. The choice of chair is telling. In 1985 Carter founded Westminster Health Care, which provided healthcare and nursing home care for the public and private sectors, selling his stake for £8m in 1999. It was sold on to venture capitalist 3i and then to Barchester Healthcare in 2004 for £525m (Murray-West, 2004; "Winners with wealth from health," 2006). It was later sold on by Barchester Healthcare in 2004 for £525m. He was chair of Competition Panel Sport England from 2002 to 2006 and, from 2008, of the Cooperation and Competition Panel, which regulated competition between the NHS and private-sector providers for NHS-funded services (Taylor, 2008). He was also chair of the UK arm of the US integrated healthcare company McKesson, and is currently chair of Health Services Laboratories, a pathology joint venture involving UCLH, the Royal Free, and the private pathology company The Doctors Laboratory (see below) ("Lord Carter of Coles Patrick Carter," n.d.; "Lord Carter of Coles," n.d.; Neville, 2015).

Carter wrote two reports. His 2006 report recommended the establishment of freestanding pathology networks. "We envisage that a pathology network would be established and defined in terms of the geographical area it covers". He recommended establishing pathology tariffs, which meant that pathology services needed to be unbundled from other diagnostic and imaging services. He also advocated joint ventures with the independent sector to bring fresh investment and skills and improve quality. Specialist laboratories and those participating in national screening programmes should be in a separate national network (Lord Carter of Coles, 2006, paras. 18–23, 150–156).

In his second report in 2008 Carter elaborated on the networks based on existing patient flows and the historic pattern of referrals that would probably cross strategic health authority boundaries. He recommended what would come to be known as the "hub and spoke" model. Hubs would generally be based in large teaching hospitals, and spokes in smaller hospitals. Central laboratories or hubs would carry out high volume, non-urgent, or specialist work, while local laboratories, the spokes, provided low volume urgent testing close to the patient. What was urgent and non-urgent was never defined and the services were never specified (Lord Carter of Coles, 2008, paras. 45–48). Currently, essential service laboratories (ESLs), that correspond to spokes, must offer "only the services needed to provide acute pathology provision, including appropriate blood transfusion services ... All other work should be performed in the hub laboratory" (NHS Improvement, 2018a, app. 2).

Although Carter gave a nod to local NHS microbiology/virology laboratories being expected to fulfill a public health role - including contributing to disease surveillance, supporting the investigation of local outbreaks, and providing specialist advice to clinicians on infection control in primary care and community settings – the mechanisms, systems, and structures for doing so were never interrogated (Lord Carter of Coles, 2006, para. 133). Rather, his chief concern was that networks should make efficiency savings through pooled procurement and pooling of staff to reduce agency costs and deal with vacancies.

Carter expressed a view that foundation trusts were simply too competitive to be able to work cooperatively and consolidate services, and thought that strategic health authorities should require PCTs to lead implementation (Lord Carter of Coles, 2008, p. 23). However, foundation trusts were already merging with other trusts and consolidating and as well as closing laboratories they were engaging in joint ventures using their commercial freedoms in a range of ways. In 2017, NHS Improvement (NHSI) proposed a new programme to create 29 networks covering a total of 147 trusts with 23,000 staff. This figure compares with the 25,000 staff estimated by Carter in 2006 to be working in approximately 300-plus NHS laboratories (Lord Carter of Coles, 2006, para. 100; NHS Improvement, 2017).

3.1 Public private partnerships

A key difficulty in understanding the development of pathology services since 2003 is the lack of systematic publicly available national data on funding, and on expenditure on communicable disease surveillance and its workforce, laboratories, and services. The UKHSA website does not publish details on the current status of lighthouse and other laboratories.

In 2010, only one NHS hospital was using a private provider for its pathology services. By 2015, of 155 acute hospitals that received freedom of information requests, 10 were involved a joint venture with private companies for their laboratories and four were completely outsourced. The networks usually involve multiple NHS trusts or foundation trusts and many have public-private joint ventures. Some staff may be employed by private companies. Examples are shown below (see also appendix 4).

In 2015, joint ventures with NHS pathology labs accounted for about £237m or 13% of the total national annual pathology budget. (Satta and Edmonstone, 2018).

In 2017 and 2018 NHSI had targeted the pathology modernisation programme for savings of £200m on a £2.2bn annual pathology cost in England (NHS England, n.d.; NHS Improvement, 2018b, p. 2) It proposed a range of privatisation models from joint ventures to outsourcing.

Lighthouse laboratories

During the covid-19 pandemic in 2020-21, 10 new lighthouse laboratories were opened by NHS Test and Trace for large scale rapid covid testing, some in public private partnerships with industry (UK Health Security Agency, 2021a, 2021b). In March 2022 UKHSA announced the closure of three of the laboratories, at Newcastle Hospitals Foundation Trust, University Hospitals Plymouth Trust, and NHS Berkshire and Surrey Pathology Services (Thomas, 2022).

Pathology networks

The examples below illustrate the different forms that networks have taken including some of the larger joint ventures with the private sector in London.

North West London Pathology¹⁰¹ is a shared services organisation jointly owned by Imperial College Healthcare NHS Trust, Chelsea & Westminster NHS Foundation Trust and The Hillingdon Hospitals NHS Foundation Trust. It was set up in November 2016. The hub site is at Charing Cross Hospital, part of Imperial College Healthcare, and there are six ESLs (“Our organisation,” n.d.).

The Health Services Laboratories LLP¹⁰² is a joint venture between University College London Hospitals NHS Foundation Trust and the Royal Free London NHS Foundation Trust with The Doctors Laboratory Ltd (TDL). TDL is owned by Sonic Healthcare, an Australian medical diagnostics company, which made A\$1.5bn profits on revenues of A\$9.3bn in the year to June 2022 (Sonic Healthcare Limited, 2022). It is worth noting that HSL is chaired by Lord Carter, author of the 2006 and 2008 pathology reviews. It made a £27.6m profit on revenues of £206m in 2020/21, a large increase on the previous year (£5.8m on £133m revenue), mainly it would seem from covid-19 testing (Health Services Laboratories LLP, 2021). UCLH and the Royal Free would each expect 24.5% of the profits in accordance with their equity in the joint venture, with TDL holding a 51% equity stake. HSL employed 1,074 staff in 2020/21 via its subsidiary HSL (Analytics) (HSL (Analytics) LLP, 2021). HSL states that its Department of Clinical Parasitology (which used to be part of UCLH’s Hospital for Tropical Diseases)

¹⁰¹ <https://www.nwllpathology.nhs.uk>

¹⁰² <https://www.hslpathology.com>

serves as a National Parasitology Reference Library (Health Services Laboratories, 2022, p. 134). It is the only reference laboratory not housed in a UKHSA or NHS facility.

The South East London Pathology Partnership,¹⁰³ formed in April 2021, involves Guy's and St Thomas' NHS Foundation Trust and King's College Hospital Foundation Trust as partners. In 2009 Guy's & St Thomas' signed a deal with Serco to create GSTS Pathology, joined a year later by King's College Hospital to create a £1bn joint venture known as Viapath ("King's College Hospital and GSTS Pathology join forces to become UK's largest provider of pathology services," 2010). Serco's service was controversial and dogged by accusations of errors and overcharging (Ramesh, 2012; "Serco: the company we need for NHS test and trace?," 2020; "Serco," n.d.). In April 2021, SYNLAB, a clinical laboratory services company owned by private equity group Cinven, took over the £2.25bn contract to provide pathology services to most of south east and central London, including South London & Maudsley NHS Foundation Trust, Oxleas NHS Foundation Trust, and NHS South East London Clinical Commissioning Group (encompassing GP practices), as well as various tertiary services across the UK. The partnership is now called Synnovis.¹⁰⁴ SYNLAB said that a brand new hub would be ready at Blackfriars by 2025 ("Overview of the new SYNLAB/NHS pathology partnership in South East London," n.d.).

Lewisham and Greenwich NHS Trust, though in south east London, preferred to be part of the entirely NHS pathology network centred on **Barts Health NHS Trust**, along with Homerton Healthcare NHS Foundation Trust in east London (Clover, 2019).

Mid and South Essex NHS Foundation Trust is in a joint venture, Pathology First, with Integrated Pathology Partnerships (iPP), a subsidiary of SYNLAB.¹⁰⁵ Formed in 2014, it supports hospitals of Southend and Basildon & Thurrock, along with over 200 GP practices. The Trust holds a 51% share of two joint venture limited liability partnerships, Pathology First and Facilities First, so that 51% of any surplus goes to the Trust. However, all £14.6m of revenue in 2020/21 was spent on services from iPP Analytics Ltd, which employed 424 operational and 36 administration staff. iPP Analytics Ltd made a loss that year, as did its parent company Labco UK Group Ltd (part of Synlab), despite Labco's subsidiaries collectively making an operating profit of £9.3m on £90.8m revenue (iPP Analytics Ltd, 2021; Labco UK Group Limited, 2021; Mid and South Essex NHS Foundation Trust, 2022; Pathology First LLP, 2021).

The South West London Pathology Partnership is not a joint venture. It is a joint operation between St George's University Hospitals NHS Foundation Trust, Epsom & St Helier NHS Foundation Trust, Croydon Health Services NHS Trust, and Kingston NHS Foundation Trust. Its board is made up of the chief executives and finance directors of the participating trusts, and it does not have an independent existence in any way (Croydon Health Services, 2022, p. 115).

3.2 Conclusion: accountability undermined by lack of routine data on laboratory services, staffing, income, expenditure, and joint ventures

A key difficulty in understanding the development of pathology services and charting the scale of privatisation since 2003 is the lack of systematic publicly available national data on funding, and on expenditure on communicable disease surveillance and its workforce, laboratories, and services. Regarding the current pathology networks, NHS England does not appear to have publicly available information on each network. Some trusts provide information in their annual reports and accounts,

¹⁰³ <https://sel.synlab.co.uk/overview/>

¹⁰⁴ <http://www.synnovis.co.uk/>

¹⁰⁵ <https://humanmedicine.synlab.co.uk/nhs-partnerships-3/pathology-first/>

but others do not refer to the networks at all. Some details have had to be traced via private company websites and Companies House. The extent of privatisation and fragmentation of laboratory and public health services is illustrated by the absence of routine data on workforce, laboratories, and expenditure, as well as lack of systematic accounts of joint ventures for pathology and public health services and associated costs.

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ACRONYMS

CAMR	Centre for Applied Microbiology and Research
CCDC	consultant in communicable disease control
CDSC	Communicable Disease Surveillance Centre
CDR	Communicable Disease Report
CFS	centrally financed services
CMO	chief medical officer
CPHL	Central Public Health Laboratory
DH	Department of Health
DHA	district health authority
DHSS	Department of Health and Social Security
DPH	director of public health
EHO	environmental health officer
ERL	Epidemiological Research Laboratory
GPFH	GP fundholder
HCHS	hospital and community health services
HPA	Health Protection Agency
MOEH	medical officer of environmental health
MOH	medical officer of health
MRC	Medical Research Council
NHSI	NHS Improvement
NHSMB	NHS Management Board
OPSC	Office of Population, Censuses and Surveys
PCT	primary care trust
PFI	private finance initiative
PHE	Public Health England
PHLS	Public Health Laboratory Service
PHLSB	Public Health Laboratory Service Board
RHA	regional health authority
SCM	specialist in community medicine
UKHSA	UK Health Security Agency

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APPENDIX 1 DHSS REVIEW OF PHLS, 1985: CONSULTATION

Draft list for consultation, May 1985

Professional bodies and staff association

- 1 Association of Clinical Biochemists
- 2 Association of Clinical Pathologists
- 3 Association of Medical Microbiologists
- 4 Association of Medical Officers for Environmental Health
- 5 Association of Professors of Medical Microbiology
- 6 Association of Scientific, Technical and Managerial Staffs
- 7 Staff side secretary, British Medical Association
- 8 Confederation of Health Services Employees
- 9 General Medical Services Committee, BMA
- 10 General Whitley Council Staff Side (c/o NALGO)
- 11 Hospital Physicists Association
- 12 Infection Control Nurses Association (ICNA)
- 13 Institute of Health Service Administrators
- 14 Institute of Medical Laboratory Sciences
- 15 Joint Consultants' Committee, BMA
- 16 Medical Officers of Schools Association
- 17 National and Local Government Officers Association (NALGO)
- 18 Prison Medical Officers Association
- 19 Trades Union Congress (TUC)

Royal Colleges

- 20 Central Committee for Community Medicine (CCCM), BMA
- 21 Epidemic Observation Units, Royal College of General Practitioners
- 22 Royal College of Pathologists

Consultative bodies

- 23 Association of Community Health Councils
- 24 Association of District Medical Officers
- 25 Community Medicine Consultative Committee, CCCM, BMA
- 26 Joint Committee on Vaccination and Immunisation
- 27 National Association of Health Authorities
- 28 Microbiological Consultative Committee, c/o BMA
- 29 Microbiology Sub-Committee of the Scientific Advisory Group of the Scottish Health Services Planning Council
- 30 Standing Medical Advisory Committee, DHSS (Hannibal House)
- 31 Standing Nursing and Midwifery Advisory Committee, DHSS (Hannibal House)
- 32 Regional medical officers (14)
- 33 Regional scientific officers (17)

Local authority bodies

- 34 Association of London Authorities
- 35 Association of County Councils
- 36 Association of County Public Health Officers
- 37 Association of District Councils
- 38 Association of London Boroughs Medical Officers of Health
- 39 Association of London Chief Environmental Health Officers

- 40 Association of Metropolitan Authorities
- 41 Association of Sea and Airport Health Authorities
- 42 Institute of Environmental Health Officers
- 43 London Authorities Co-ordinating Body on Trading Standards
- 44 London Boroughs Association
- 45 National Association of Health Authorities

Other government departments or bodies

- 46 Defence Medical Services Directorate
- 47 Department of the Environment
- 48 Health and Safety Executive
- 49 Laboratory of the Government Chemist
- 50 Pollution scientist, Ministry of Agriculture, Fisheries and Food
- 51 Food Science Division, MAFF
- 52 Food Standards Division, MAFF
- 53 Chief Veterinary Officer, MAFF
- 54 Central Veterinary Laboratory, MAFF
- 55 Veterinary Division, Animal Health Division I
- 56 Medical Research Council
- 57 National Institute for Biological Standards and Control
- 58 DHSS Northern Ireland
- 59 Scottish Home and Health Department
- 60 Welsh Office

Others

- 61 Association of Clinical Biochemistry
- 62 British Food Manufacturing Industry Research Association
- 63 British Paediatric Association
- 64 British Society for the Study of Infections
- 65 British Thoracic Society
- 66 British Veterinary Association
- 67 Committee of Vice Chancellors and Principals of the Universities of the UK
- 68 Consumers Association Ltd
- 69 Coroners' Society
- 70 Faculty of Community Medicine
- 71 Hospital Infection Society
- 72 House of Commons Library
- 73 House of Commons, Select Committee Clerk
- 74 Institute of Biology
- 75 Infection Control Nurses Association
- 76 King Edward's Hospital Fund for London
- 77 Liverpool School of Tropical Medicine
- 78 London School of Hygiene and Tropical Medicine
- 79 Medical Society for the Study of Venereal Diseases
- 80 National Consumer Council
- 81 National Consumer Protection Council
- 82 National Federation of Consumer Groups
- 83 Pathological Society of Great Britain and Northern Ireland
- 84 Royal Institute of Public Health and Hygiene
- 85 Royal Society for the Promotion of Health
- 86 Royal Society of Tropical Medicine
- 87 Society for Applied Microbiology

- 88 Society for General Microbiology
- 89 Society of Community Medicine
- 90 Water Authorities Association
- 91 Division of Communicable Diseases, World Health Organization
- 92 WHO Regional Office for Europe
- 93 Prof Ian Phillips, St Thomas Hospital [professional adviser to the review]
- 94 Prof Peter Blower, Journal of the Pathological Society of Great Britain and Ireland [professional adviser to the review]

Source: JA 397/20 PHLs: review 1982 of staffing, functions, and efficiency: May 1985. Review of the PHLs: consultation

APPENDIX 2 PHLS INCOME, 1979/80 – 2002/03, NOT INCLUDING CAMR

	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	£m																							
Government grants	21.1	26.2	32.6	31.3	34.2	37.6	29.1	31.1	34.9	40.3	43.8	46.2	53.9	58.0	61.6	57.6	56.3	56.6	56.4	58.3	59.2	58.4	58.2	62.9
	86%	87%	87%	85%	86%	86%	81%	80%	80%	76%	72%	69%	65%	54%	53%	52%	49%	46%	46%	46%	45%	43%	40%	40%
Rechargeable services	2.8	2.5	3.2	2.5	2.9	3.3	3.5	4.3	4.4	5.6	7.4	9.0	13.3	33.1	35.0	44.9	50.6	55.7	58.1	58.9	62.3	65.5	74.5	81.9
	11%	8%	8%	7%	7%	7%	10%	11%	10%	11%	12%	13%	16%	31%	30%	41%	44%	46%	47%	46%	47%	48%	51%	52%
Other	0.5	1.3	1.7	2.9	2.7	3.0	3.3	3.3	4.3	7.2	9.5	12.1	15.5	16.5	19.2	8.2	7.9	10.0	8.0	10.0	9.7	12.2	12.2	12.8
	2%	4%	4%	8%	7%	7%	9%	9%	10%	14%	16%	18%	19%	15%	17%	7%	7%	8%	7%	8%	7%	9%	8%	8%
	24.4	30.1	37.4	36.8	39.9	43.8	35.9	38.7	43.6	53.0	60.7	67.4	82.7	107.6	115.8	110.7	114.8	122.3	122.5	127.2	131.2	136.0	144.9	157.6

Source: Public Health Laboratory Service Board Accounts 1979-80 to 2002-03

APPENDIX 3 PHLS INCOME AND EXPENDITURE 1979/80 – 2002/03, SHOWING STAFF COSTS AND DEFICITS

	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m													
Income and expenditure																								
Income																								
Govt grants	21	26	33	31	34	38	29	31	35	40	44	46	54	58	62	58	56	57	56	58	59	58	58	63
Activities	3	4	4	5	4	5	5	6	7	8	12	15	21	40	43	47	53	57	60	62	65	69	79	87
Other income	0	0	0	1	1	1	1	2	2	5	5	6	7	9	11	6	6	8	6	7	7	8	8	8
Total income	24	30	37	37	40	44	36	39	44	53	61	67	83	108	116	111	115	122	123	127	131	136	145	158
Expenditure																								
Staff costs	13	17	19	20	21	22	24	26	29	32	36	42	52	68	72	68	70	74	73	75	78	79	87	96
Other costs	6	8	9	9	10	11	12	13	15	21	23	24	29	43	44	48	49	49	53	52	52	57	62	67
Total expenditure	19	25	28	29	31	32	36	39	44	53	59	66	81	111	116	116	118	123	125	127	130	136	149	164
Operating surplus / deficit																								
Other	-5	-5	-9	-8	-9	-12	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	3	3
Surplus / deficit	0	0	0	0	0	0	0	0	0	0	1	1	2	-4	-1	-2	-1	0	-2	0	1	0	-1	-2
Retained s/d brought forward	0	0	0	0	0	0	0	0	0	0	0	1	2	4	0	-4	-7	-8	-8	-9	-9	-8	-7	-9
Retained s/d carried forward	0	1	2	4	0	-1	-7	-8	-8	-10	-9	-8	-7	-9	-11									

Source: Public Health Laboratory Service Board Accounts 1979-80 to 2002-03

The accounts for 1988/89 were the first to be prepared on an income and expenditure basis. Accounts for previous years were prepared on a receipts and payments basis

APPENDIX 4 EXAMPLES OF PATHOLOGY NETWORKS

Network	NHS partners	Private partners	Type	Date of first partnership	Hub
North West London Pathology ¹	<ul style="list-style-type: none"> Imperial College Healthcare NHS Trust Chelsea & Westminster NHS Foundation Trust The Hillingdon Hospitals NHS Foundation Trust 		Shared services organisation	2016	Charing Cross Hospital
Health Services Laboratories LLP ²	<ul style="list-style-type: none"> University College London Hospitals NHS Foundation Trust Royal Free NHS Foundation Trust 	<ul style="list-style-type: none"> The Doctors Laboratory Ltd [Sonic Healthcare Ltd] 	Joint venture	2015	
NHS East and South East London Pathology Partnership	<ul style="list-style-type: none"> Barts Health NHS Trust Homerton Healthcare NHS Foundation Trust Lewisham & Greenwich NHS Trust 	<ul style="list-style-type: none"> 	Partnership	2021	The Royal London Hospital
South East London Pathology Partnership (Synnovis) ³	<ul style="list-style-type: none"> Guy's & St Thomas' NHS Foundation Trust King's College Hospital Foundation Trust South London & Maudsley NHS Foundation Trust Oxleas NHS Foundation Trust NHS South East London Clinical Commissioning Group 	<ul style="list-style-type: none"> SYNLAB [Cinven] 	Joint venture	2010	Blackfriars (offsite – 2023)
South West London Pathology Partnership ⁴	<ul style="list-style-type: none"> St George's University Hospitals NHS Foundation Trust Epsom & St Helier NHS Foundation Trust Croydon Health Services NHS Trust Kingston NHS Foundation Trust 		Joint operation	2021	St George's Hospital
Pathology First ^{5 6}	<ul style="list-style-type: none"> Mid & South Essex NHS Foundation Trust 	<ul style="list-style-type: none"> iPP [SYNLAB] other private sector partners 	Joint venture	2014	Basildon (offsite)
Southwest Pathology Services ⁷	<ul style="list-style-type: none"> Taunton and Somerset NHS Foundation Trust Yeovil District Hospital NHS Foundation Trust >100 GP practices 	<ul style="list-style-type: none"> iPP [SYNLAB] 	Joint venture	2012	Taunton
The Greater	<ul style="list-style-type: none"> Bolton NHS Foundation Trust 	<ul style="list-style-type: none"> Includes Christie 	Collaborative		

Manchester Pathology Network ⁸	<ul style="list-style-type: none"> • The Christie NHS Foundation Trust • Manchester University NHS Foundation Trust • Northern Care Alliance NHS • Foundation Trust Stockport NHS Foundation Trust • Tameside & Glossop Integrated Care NHS Foundation Trust • Wrightington, Wigan & Leigh Teaching Hospitals NHS Foundation Trust 	Pathology Partnership with SYNLAB ⁹	partnership		
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¹ <https://www.nwspathology.nhs.uk>

² <https://www.hslpathology.com>

³ <https://sel.synlab.co.uk/overview/>

⁴ <https://www.swlpath.nhs.uk/>

⁵ <https://humanmedicine.synlab.co.uk/nhs-partnerships-3/pathology-first/>

⁶ <https://www.mse.nhs.uk/download.cfm?doc=docm93jjim4n4754.pdf&ver=12217>

⁷ <https://humanmedicine.synlab.co.uk/nhs-partnerships-3/southwest-pathology-services/>

⁸ <https://greatermanchesterdiagnostics.nhs.uk/pathology-network>

⁹ <https://humanmedicine.synlab.co.uk/nhs-partnerships-3/cpp/>