



fully
equipped

the provision of equipment to older
or disabled people by the NHS and
social services in England and Wales



AUDIT
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fully equipped

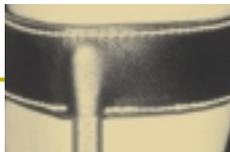
1



The Key Issues

The quality of the services received by the four million users of disability equipment services can make the difference between an enriched, independent life or an isolated, unproductive existence.

2



Orthotic Services

Serious shortcomings remain in many parts of the country in the quality of the services received by 400,000 users.

3



Prosthetic Services

The 60,000 users of artificial limbs receive an uneven service. Access to specialist expertise for users with complex needs is of paramount importance.

4



Wheelchair and Seating Services

Wheelchair service budgets are under pressure. The application of local eligibility criteria makes provision a lottery that is dependent on postcode.

5



Community Equipment Services

Effective joint working between the NHS and local authorities is essential to ensure the provision of high-quality community equipment services that can enable low-cost independent living in the community.

6



Audiology Services

Millions of people could benefit from reduced waiting times and the provision of more modern hearing aids.

7



The Next Steps

The importance of equipment services to the lives of millions of older or disabled people and their carers, coupled with the wide variations in all aspects of provision, makes concerted action essential at a national, regional and local level.

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Preface



The Audit Commission has been responsible for the external audit of local authorities in England and Wales since 1983, and in 1990 it assumed responsibility for the audit of the NHS. As well as reviewing the financial accounts of all councils and health service bodies, the Commission's auditors have a statutory duty to examine the economy, efficiency and effectiveness of the use of resources. The Commission's aim is to help those who manage and work in local authorities and the NHS to deliver the best possible services within the money available so that public expenditure makes the maximum contribution to society.

In 1997, the Audit Commission surveyed NHS finance directors to get their views on which topics offered the greatest potential for savings through the Commission's value-for-money regime. A study of equipment for older or disabled people came high on their list. This report therefore provides practical advice to trusts about how best to manage expenditure in this area.

But this report is about much more than saving money. An effective equipment service provides the gateway to many people's independence. This report reflects the Commission's commitment to examine services from users' and carers' perspectives, and is the second in a series of reports with the common theme of promoting independence. The Commission has already reported on mental health services for older people (Ref. 1) and later reports will look at rehabilitation and remedial services, and charging arrangements for home care by local authorities.

During the audit year 1999/2000, many NHS trusts will receive a local report from their external auditor, which will make recommendations on how to improve the quality of their equipment services and make best use of the money available.

This report and the accompanying audit guide and training was prepared by Michael Yeats, David Bird, Heidi Waddoups, Justin Caldwell and Nick Mapstone with direction from David Browning. Consultancy services were received from David Law and Reg Race.

The study was supported by an advisory group of user representatives, service managers, and experts in the field. The membership of the group, the study methodology and the organisations visited by the study team are contained in Appendix 1. The Commission is very grateful for the vital contribution of the advisory group. However, as with all its studies, the responsibility for the findings and recommendations of the report and the audit methodology rests with the Commission alone.

1



The Key Issues

There are over four million users of disability equipment services provided by the NHS or local authorities.

The quality of the services that they receive can make the difference between an enriched, independent life or an isolated, unproductive existence. Improvements in disability equipment services require leadership at a national level to deliver more integrated services. At a local level, senior managers need to give equipment services a higher priority in order to deliver modern, effective services.

1. Equipment for older or disabled people comes in many forms, ranging from simple walking sticks to artificial limbs with sophisticated integrated micro-technology. Users requiring equipment range from people with a minor functional problem to those with profound and multiple disabilities.
2. In the UK, at least seven million people are disabled.^I Many receive support from the NHS or local authorities. They include:
 - 400,000^{II} users of orthotic footwear or callipers;
 - 65,000 amputees who use artificial limbs (Ref. 2);
 - between 640,000 and 750,000 wheelchair users (Ref. 3);
 - nearly a million people who need equipment to help them to live independently in the community; and
 - two million people who use a hearing aid.
3. This report examines the five equipment services that are the largest in terms of user numbers and cost: orthotics, prosthetics, wheelchair services, community equipment and audiology [EXHIBIT 1].

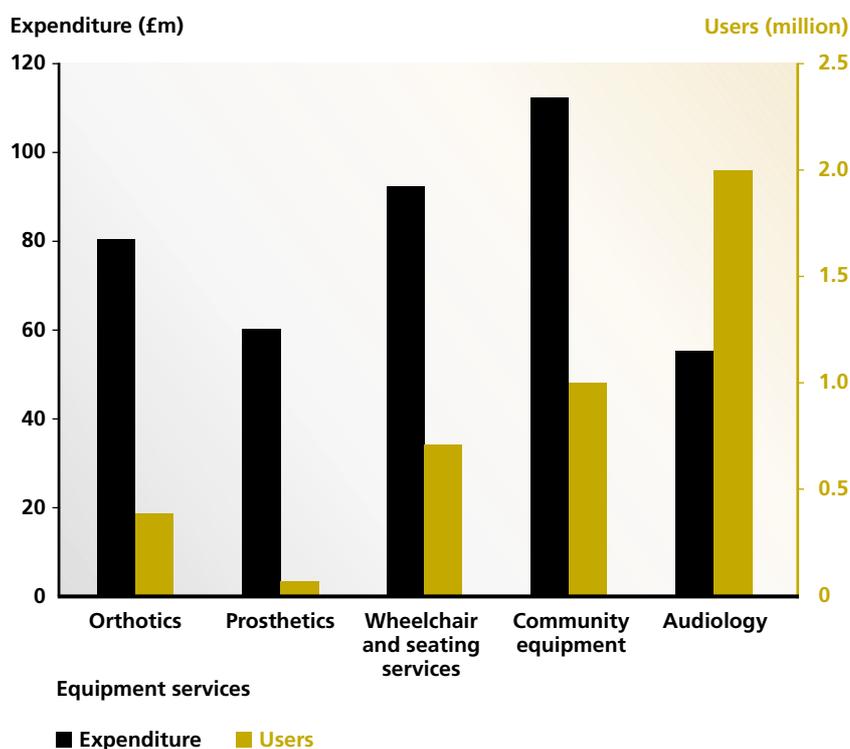
I The 1995 Health Survey of England reported that 7.3 million people are disabled.

II Based on estimates from study sites and analysis by NHS Supplies.

EXHIBIT 1

Number of users and expenditure on services examined

The report examines five equipment services.



Source: Audit Commission

These services have the potential to make or break the quality of life of many older or disabled people.

4. Equipment for older or disabled people provides the gateway to their independence, dignity and self-esteem. It is central to effective rehabilitation (Ref. 4); it improves quality of life (Ref. 5); it enhances their life chances through education and employment; and it reduces morbidity at costs that are very low compared to other forms of healthcare (Ref. 6). It is no exaggeration to say that these services have the potential to make or break the quality of life of many older or disabled people, and of the 1.7 million people who provide informal care for more than 20 hours per week.
5. A review of equipment services for older or disabled people is timely because:
 - demand is increasing as the population ages (Ref. 7);
 - users' expectations are increasing with advances in technology and medical science;
 - the successful implementation of community care policies requires effective equipment services; and
 - equipment services are central to a range of policy initiatives around the theme of promoting people's independence [BOX A].

BOX A

Current policy initiatives

- A key objective for the Department of Health following the comprehensive spending review is: 'To enable people who are unable to perform essential activities of daily living, including those with chronic illness, disability or terminal illness, to live as full and normal a life as possible'.
- The 1999 Health Act and the White Paper, *The New NHS: Modern, Dependable* (in Wales *NHS Wales: Putting Patients First*) emphasises the importance of quality, performance, partnership and efficiency in service provision.
- A key aim of the Government is to help people to live in their own homes and avoid admission to hospital or residential care; and to prevent accidents in the home.
- The Health Act also establishes a statutory duty of partnership between NHS bodies and local authorities set in the strategic context of a local health improvement programme. The partnership provisions of the Act enable NHS bodies to establish pooled budgets, lead commissioning and integrated provision. Regulations will allow all health-related local authority functions to be included.

continued

BOX A (cont.)**Current policy initiatives**

- The Local Government Act 1999 gives authorities a statutory duty to provide best value, and this requires effective joint working and partnerships with the private sector. Authorities also have new discretionary powers to engage in partnership arrangements with other bodies, including NHS bodies that operate locally for any purpose that supports their functions.
- The national carers' strategy, underpinned by the Carers' Recognition and Service Act, looks at the role of carers.
- The Better Government for Older People initiative aims to promote partnerships that work across central and local government, and with the private, voluntary and community sectors.
- Effective community equipment provision is a key theme of the social services White Papers and the National Priorities and Guidance for Health and Social Care.
- The Government's Welfare to Work initiative will be promoted by more effective equipment provision.
- New concepts of social inclusion, integration and responsibilities, as well as rights, are intended to support older and disabled people as citizens.
- The 1999 Disabled Living Centres Council's guidance represents the Government's view of best practice in the provision of community equipment (Ref. 8).



Investment in equipment services delivers high quality at low cost.

6. The report examines each of the five service areas separately, and addresses some key overarching issues:
 - Eligibility criteria are often unclear to users, carers, voluntary organisations and staff; and are applied inconsistently from month to month and from case to case. As a result, some people may go without.
 - Insufficient attention is paid to the underlying levels of demand, and provision is usually related to historic patterns. This contributes to unacceptable variations in service levels between different parts of the country.
 - Many equipment services are characterised by a lack of clinical leadership and senior management involvement, resulting in highly reactive, poorly planned services. Quality and service standards are not properly assured and will be unable to meet the demands of the new clinical governance or best value agendas.
 - Orthotics, prosthetics and wheelchair services are not integrated effectively, so opportunities for clinical synergies and economies of scale are lost. Many services have workloads that are inadequate to support proper peer review and clinical audit.
 - Users do not always get appropriate equipment of a reasonable quality. As a result, the equipment is not used and the money that has been spent on it is wasted. Money is also wasted when users are not provided with adequate information about their equipment, and training in how to use it.
 - Poor clinical outcomes compound the waste of public money when services do not meet users' needs first time. There are many examples across all the service areas under review where fittings needed to be repeated several times.
 - Most equipment budgets have been under particular pressure in recent years. Spending on equipment is categorised as 'non-pay' and has been an easier target for budget reductions than the proportionately larger staffing budgets of other services. Budgetary restraints have exerted a fierce downward pressure on market prices in some sectors, squeezing suppliers' margins and leaving little money for investment in research, product development and quality improvement.
 - Finally, prevention is always better than cure. Investment in equipment services delivers high quality at low cost. Enabling people to remain independent in the community through the use of appropriate equipment is always preferable to admitting them for treatment into other parts of the healthcare system.
7. Improvements in equipment services would be delivered by the following actions.

Greater integration

- Specialist rehabilitation centres should be established that integrate orthotics, prosthetics, wheelchair and specialist seating services, and that support local services through 'hub-and-spoke' arrangements.
- Joint health and local government community equipment stores should be established where they have not already been set up, and formulae agreed to calculate the contributions from each agency. Audiology (health) and assistive listening services (local government) should be integrated.

Leadership

- The Department of Health should raise the profile of these services through the National Priorities Guidance and the National Service Framework for Older People.
- The new clinical governance agenda demands clinical leadership to ensure that equipment meets clinical need, and equipment services are subject to effective programmes of clinical audit.
- Senior managers should help to establish more integrated services and introduce local quality and cost improvement plans.



Quality

- Waiting times for the provision of equipment should be reviewed by commissioners and providers, and quality improvement programmes implemented to achieve the performance of the level of the best performing 25 per cent of services. There should be regular monitoring to ensure that quality improvements are sustained.
- Eligibility criteria should always be made clear to users and staff, and applied fairly.

Cost

- Standard product lines should be introduced to consolidate demand, together with the best use of NHS Supplies¹ framework agreements. Social services departments that run community equipment stores should have access to these agreements.
- Better tracking of equipment once it has been issued is needed to save money by increasing recycling.
- Contracts should avoid conflicts of interest by establishing the proper separation of duties between the fitting and the supply of equipment.

1 The role of NHS Supplies will be assumed by the NHS Purchasing and Supply Agency with effect from 1 April 2000.

8. The five service areas are examined in the following chapters: each chapter considers the issues of quality and cost. The 'quality' section looks at the services from the user's point of view, with observations on:

- equity – the fairness of provision;
- waiting times – the time it takes to access services; and
- efficacy – the user's experience of the equipment.

The 'cost' section then explains how managers can make better use of the money currently available. Recommendations that are specific to individual services are made at the end of each chapter, and general recommendations are gathered together at the end of the report.



2

Orthotic Services

In 1992, a report described the NHS orthotics service as 'rudderless and unco-ordinated'. Serious shortcomings remain in many parts of the country in the quality of the services received by 400,000 users. Improvements depend on the reorganisation of the current fragmented service to provide strong clinical leadership within an integrated service.

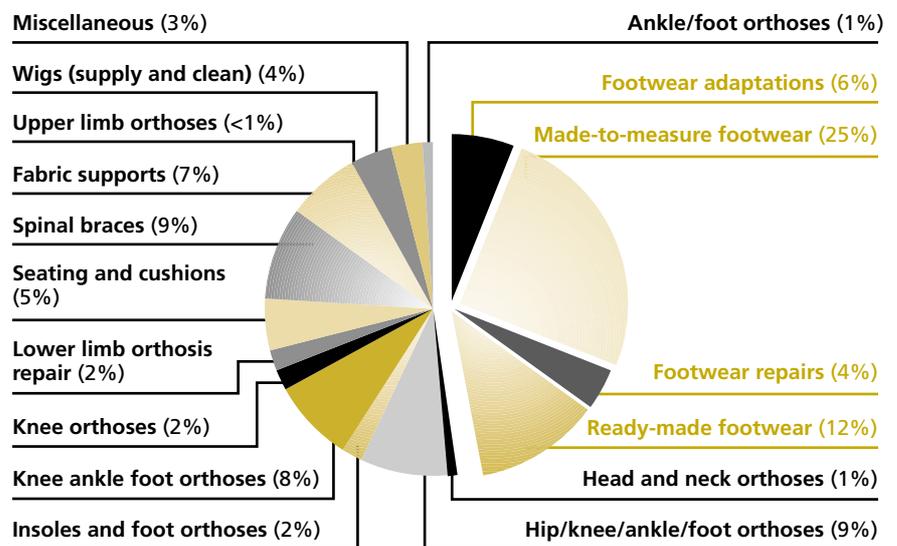
Introduction

9. An orthosis is ‘an externally applied device used to modify the structural and functional characteristics of the neuro-muscular and skeletal system’ (Ref. 9). The main orthotic services involve the supply and fitting of orthopaedic footwear and a range of callipers, splints and surgical collars. About half of a typical trust’s expenditure on orthotics is on footwear [EXHIBIT 2]. In most trusts, the orthotics service is small-scale with annual expenditure of less than £500,000 [EXHIBIT 3].

EXHIBIT 2

Analysis of expenditure on patients’ appliances

Typically, almost half the expenditure on orthotics is on footwear.

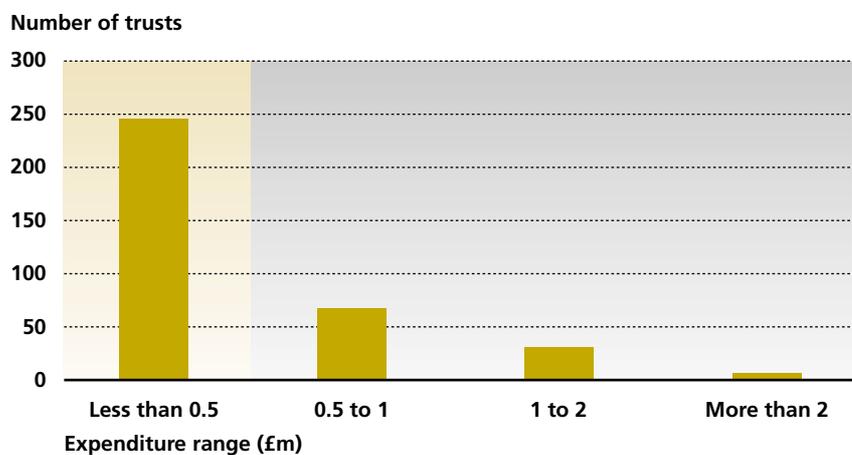


Source: Average proportions observed at Audit Commission research sites

EXHIBIT 3

Expenditure on orthotics

Most trusts provide a small-scale orthotics service.



Source: Audit Commission analysis of TFR3 data, 1996/97.

10. In 1992, a report commissioned by the Department of Health described NHS orthotics as ‘a rudderless and unco-ordinated service with little or no management, run by clerical staff with little or no training’. It found ‘a high element of commercial input which is badly monitored, and ...controlled by consultant medical staff who have long waiting lists...’(Ref. 10). The report recommended greater use of NHS-employed orthotists, and the merging of orthotic and prosthetic services to provide economies of scale and synergies in clinical practice.

11. The report also highlighted a critical conflict of interest. Trusts at that time usually employed orthotists from commercial companies to provide the clinical service of assessing patients’ needs and measuring them for orthotic devices. The same orthotist was then responsible for supplying such items. There was an obvious risk that orthotists, acting as both clinicians and salesmen, would recommend a product from their own company regardless of whether it was the best product available. (Indeed, some orthotic companies charge for handling other companies’ products.) In response to these concerns, the NHS Executive issued guidance to trusts on contracting arrangements for orthotic services (Ref. 11).

12. In some respects, the character of orthotic services has changed since 1992 [BOX B]. Different models of orthotics provision have evolved, with some trusts choosing an in-house service, others out-sourcing the service to a commercial supplier, while still others have chosen a mix of public and private provision [TABLE 1, overleaf]. The different models can work equally well, provided that there are appropriate checks and balances and clear accountability.

BOX B

Changes in the orthotics service since 1992

- 53 per cent of trusts have complied with HSG(95)47 and have separated orthotic services and supply; not surprisingly, this has led to an increase in the number of suppliers used by trusts – purchasing is now (even more) fragmented, and many orthotic suppliers are not retained under formal contract;
- 20 per cent of trusts now employ their own orthotist, compared to only 7 per cent in 1992;
- direct GP access and the role of physiotherapist prescribers have increased;
- the use of patient satisfaction surveys has increased from 15 per cent of trusts using them in 1992 to 46 per cent in 1999;
- financial management has improved – 49 per cent of surgical appliance officers (SAOs) get budget statements in 1999, compared to 34 per cent in 1992; and
- the use of IT has increased.

Source: Audit Commission survey, N = 150

TABLE 1

Alternative models of orthotic provision

| MODEL | POSSIBLE ADVANTAGES | POSSIBLE DISADVANTAGES |
|--|--|--|
| Employing an NHS orthotist | <p>Orthotist's allegiances would be to the trust.</p> <p>Integration of appliance prescription and research.</p> <p>Continuity of service.</p> | <p>Attracting and retaining an NHS orthotist may be difficult and costly.</p> <p>There may be problems covering leave and other absence. Sufficient scale is needed to make the service viable.</p> <p>Orthotists may direct work to in-house manufacturing capability (where one exists) regardless of value for money.</p> |
| Employing an NHS orthotist in conjunction with neighbouring trusts | <p>An area service offers scope for economies of scale.</p> <p>This model also creates scope to negotiate local volume discounts with product suppliers.</p> <p>There is sufficient scale to make efficient use of orthotists' time.</p> | <p>Attracting and retaining orthotists may be difficult and costly.</p> |
| Commercial provision | <p>Private sector orthotists appear to be as strongly committed to their host trust and are often regarded as team members by trust staff.</p> <p>There is greater scope for collaboration in design.</p> <p>Continuity of service can be supplied by the private sector with contracted service in long-term partnership.</p> | <p>Contracted orthotists may direct work to their own company, regardless of value for money.</p> |

Source: Audit Commission

Improving quality

Equity

13. Improvements in the orthotics service have been uneven, leading to an unequal service across the country. National standards are lacking and there is little or no involvement by health authorities and their associated primary care groups (PCGs) in England or local health groups (LHGs) in Wales in deciding the level of service that should be provided locally. Great differences exist side by side within the same geographical area because, in practice, staff at a fairly junior level decide policy without reference to agreed standards.

14. Faced with limited funds, staff sometimes even fail to apply their own criteria consistently. The criteria for providing orthotics not only vary between trusts, but also at different times of the year, depending on the available budget. Changing criteria are, generally speaking, not fully publicised either to users, or to those professionals who are not directly involved in the service [CASE STUDY 1].

15. The current fragmentation of the orthotics service into 200 or more locally based services, all with their own standards and policies, is a recipe for inequity and inefficiency. The lack of integration of orthotics, prosthetics and wheelchair services presents particular problems for the many users with multiple needs [CASE STUDY 2, overleaf]. Managers need to ensure that their trust's choice of model for providing orthoses (see Table 1) is rationally based. In particular, they need sufficient volume throughput to ensure a high quality service. Stand-alone orthotics services dealing with fewer than 150 patients a week are probably too small to be viable both in terms of quality and cost, and should look to collaborate with neighbouring trusts to ensure sufficient scale.

CASE STUDY 1

Changing eligibility criteria

A 13-year-old child was prescribed a pair of shoes by a hospital chiropodist. Her mother received an invoice for £28, payable before delivery. The hospital claimed (wrongly) that only diagnosis, not orthoses, could be provided free of charge. The chiropodist explained that he had a budget for orthoses but this tended to run out during the year. So while he could provide orthoses free of charge at the beginning of the year, people had to pay once this budget ran out.

A complaint to the Ombudsman was upheld on the ground that there are no legal powers available to the NHS to charge for orthoses.

Source: Health Service Commissioner (Health Service Ombudsman) investigations

Many users have less complex needs but want easy access to local centres...

16. The challenge for the orthotics service is getting users to the most appropriate service location. Users with complex needs should be referred to specialist centres, especially when they would benefit from multidisciplinary assessment and expertise. On the other hand, many users have less complex needs but want easy access to local centres that are probably best organised at local PCG/PCT/LHG level.

CASE STUDY 2

Fragmented services offer poor-quality care

In 1996, a baby was born with severe impairments in both legs. An orthopaedic surgeon advised that only one leg could become functional. A prescription for a full-length splint was arranged with the orthotics service contracted to the local district general hospital where the surgeon was based. The other leg needed to be amputated and a referral was made to a specialist centre in a neighbouring county.

After recovering from the amputation, the child was fitted with her first artificial limb. The consultant in rehabilitation medicine decided that the full-length orthosis fitted to the other leg needed to be modified. There then followed a debate about who was responsible for the care of this leg.

Eventually, the modification was arranged and the overall management of the child's care was handed over to the regional centre. The splint, although modified as requested, sat on a shelf for several weeks as the supplier and the hospital argued about outstanding invoices, and work in progress had been withheld until payments were forthcoming. Eventually, the child was successfully fitted with a splint, and an artificial limb, and received the necessary therapy and walking training.

The therapists at the regional centre recommended that she should also have a special buggy to provide postural support because her walking ability was limited and she needed to maintain a symmetrical sitting posture to avoid developing spinal deformities as she grew. This recommendation was sent to the local wheelchair service that held the budget for provision. But the wheelchair service was not prepared to accept the recommendations of the specialist centre and insisted on its own assessment. The child also needed a special fixed chair – the responsibility of the local social services department – which also insisted on making their own assessment.

The package of care provided was considered inadequate by the specialists at the regional centre. This process took over a year to complete.

Source: Audit Commission

17. Health authorities need to develop more ‘hub-and-spoke’ arrangements, which would involve using specialist rehabilitation centres (with integrated prosthetic, specialist wheelchair and seating services) that could provide a network of support to more local services. Such a model would overcome the professional isolation experienced by many orthotists and give them a closer affinity with local rehabilitation services to foster peer support and professional development.

Waiting times

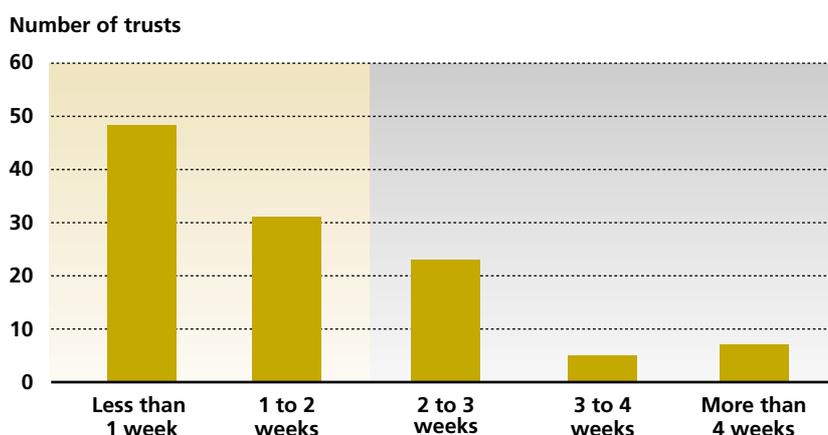
18. Some patients experience long delays in the provision of both ready-made and made-to-measure footwear. In more than 30 per cent of trusts, average waiting times for ready-made items were more than two weeks; and in 40 per cent of trusts, average waiting times for made-to-measure items were more than eight weeks [EXHIBITS 4 and 5, overleaf]. Waiting times for orthoses have improved little since 1992 [EXHIBIT 6, overleaf], although there has been an increase in activity.

19. Some of the trusts with shorter waiting times allow more direct access to orthotics services for GPs and paramedical staff. Elsewhere, direct access has not been introduced because some consultants are concerned about inappropriate prescription by GPs, most notably in the case of patients with progressive degenerative diseases. A balanced solution is needed. The British Society of Rehabilitation Medicine argues that access and efficiency should be improved by introducing protocols that define the complexity of the clinical problem at the outset and indicate when GPs can prescribe and when people should be referred on [BOX C, overleaf].

EXHIBIT 4

Average weeks’ wait from final prescription to the supply of ready-made footwear

Average waiting times are more than two weeks in over 30 per cent of trusts.

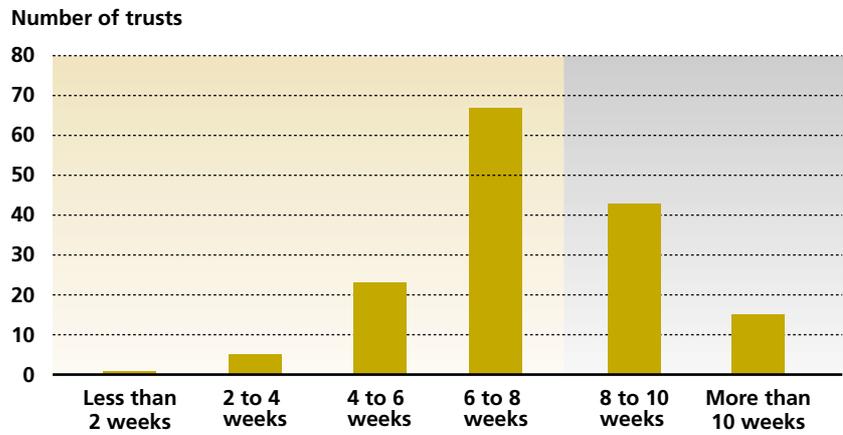


Source: Audit Commission survey, N = 114

EXHIBIT 5

Average weeks' wait from final prescription to the supply of made-to-measure footwear

Average waiting times are more than eight weeks in over 40 per cent of trusts.

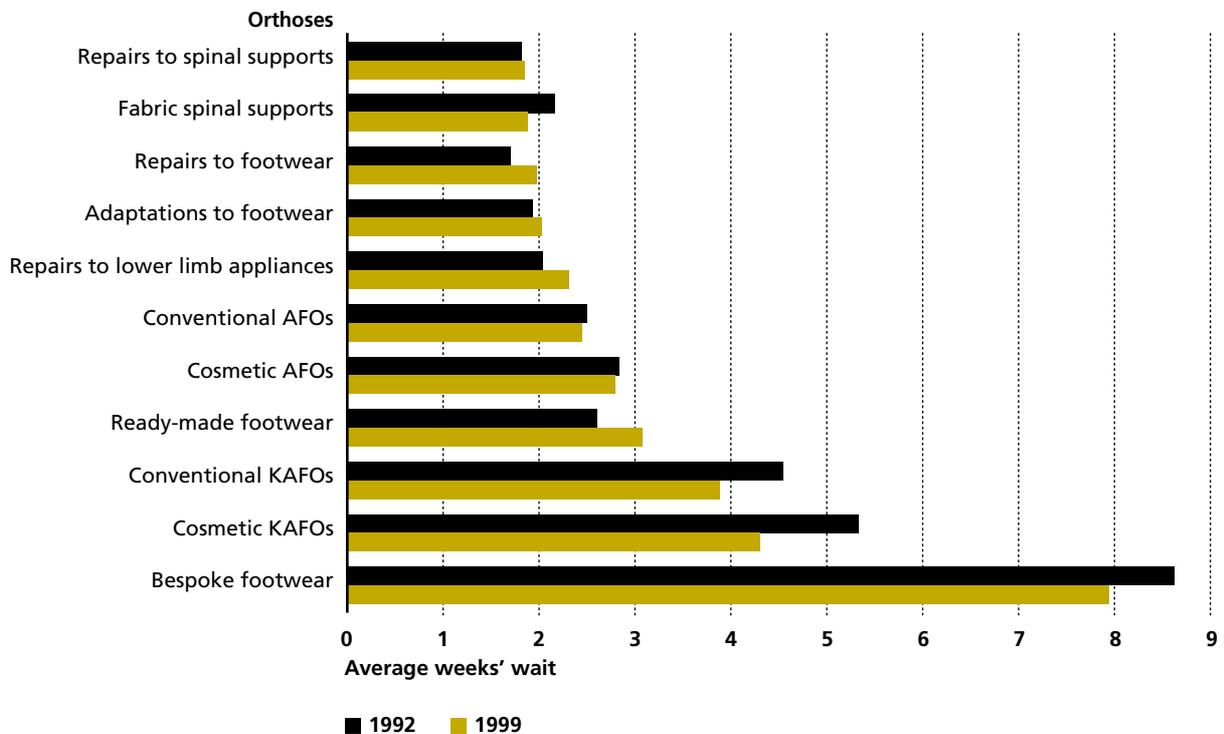


Source: Audit Commission survey, N = 150

EXHIBIT 6

Average waiting times for orthoses in 1992 and 1999

Average waiting times for orthoses have improved little since 1992.



Note: KAFO = Knee Ankle Foot Orthosis, AFO = Ankle Foot Orthosis

Source: Audit Commission survey, N = 150

BOX C

Suggested levels of orthotic service provision

| LEVEL | ORTHOSIS TYPE | ASSESSING CLINICIAN | FEATURES OF CLINICAL SERVICE |
|-------|---|---------------------|--|
| A | Fabric wrist support Soft collars Temporary fabric back support | Nurse Therapist | Temporary support for acute injury for pain relief and / or minimal mechanical stabilisation. Nurse must have access to qualified orthotist to refer complex / difficult cases. |
| B1 | Ready-made ankle foot orthosis Light fabric knee support | Therapist | Temporary orthoses can be fitted as part of a clinically managed rehabilitation plan. Therapist must have access to qualified orthotist to refer complex / difficult cases. |
| B2 | Custom-made fabric support Hosiery | Orthotist | Simple orthoses to meet longer-term needs. |
| C | Ready-made and made-to-measure orthoses (include management of patients with polio, stroke, diabetes and cerebral palsy) | Orthotist | Orthotist should work as part of a multidisciplinary team. |
| D | Specialised orthotics Complex bio-mechanical and medical conditions – for example, scoliosis bracing, paraplegic walking orthoses, special seating | Orthotist | Experienced multidisciplinary team, including medical member. |

Source: *British Society of Rehabilitation Medicine* (Ref. 12)

Only 26 per cent of orthotics services engage in any form of clinical audit activity...

20. Streamlining processes can also reduce waiting times. For most patients who require orthoses, the process following assessment, first fitting and final fitting is entirely predictable. Treating each stage separately causes unnecessary delays. Some trusts have been able to reduce waiting times substantially by adopting the practice commonly used in the provision of prostheses, whereby appointments are made in advance for all the subsequent stages in the process on the day of the initial assessment. Such process redesign requires management information systems to track progress; and effective working with suppliers to agree consistent delivery times.

Efficacy

21. Trusts' practices differ in whether they check the fit of orthoses. In almost one-third of trusts, there is no check; in another third the checks are undertaken by a surgical appliance officer (SAO), who is not adequately trained [EXHIBIT 7]. Similarly, there are differing standards of review by the referring doctor as to whether the orthosis actually produces the desired clinical effect [EXHIBIT 8]. The failure of prescribers to review the efficacy of orthotics is a problem in other countries – a recent review in Denmark found that only 16 per cent of patients had their orthoses checked by the prescriber (Ref13). At the time of the Commission's survey in 1999, only 26 per cent of orthotics services engaged in any form of clinical audit activity (other than patient satisfaction surveys) in the previous year. The absence of audit means that orthotic services cannot demonstrate that they are either clinically or cost effective. This situation appears to have arisen because of the low priority given to management and the lack of clinical leadership in orthotics, and is particularly unacceptable with the new demands of clinical governance.

22. The paucity of clinical audit activity in trusts extends to the wider academic literature on orthotics. A review of the articles submitted to the *Journal of the International Society of Prosthetics and Orthotics* found that 79 per cent of them were about prosthetics and only 21 per cent were about orthotics. And yet the potential impact of many low cost orthoses is far greater than that of many high-cost medicines that are scrutinised thoroughly through clinical trials. The absence of clinical evaluation can lead to a non-challenging culture that inhibits best patient care. Many orthotists work with little supervision, so reviewing their performance is difficult. This, in turn, gives them little opportunity to improve. This is particularly problematic for orthotists who work in professional isolation in trusts that have small orthotic caseloads.

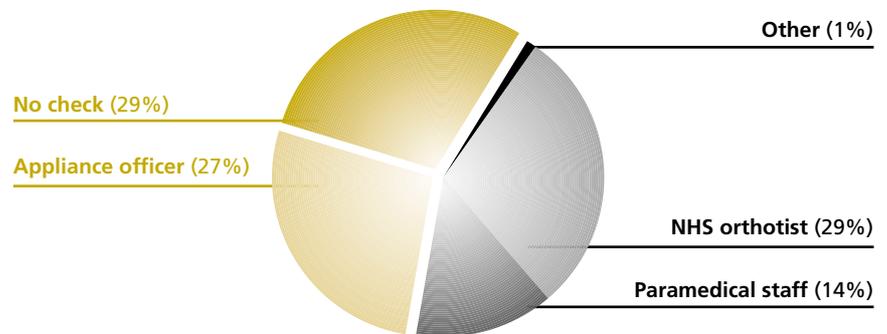
23. Developing clinical audit is essential to elevating the evidence-base of the orthotics service, and some trusts are moving in the right direction by requiring commercial orthotists to be contractually required to participate. But before any significant progress can be achieved in clinical

audit, it is essential that the quality of record keeping and retrieval systems be significantly improved in many orthotic services. The standard of clinical notes was poor or non-existent at most of the trusts visited, leaving them exposed to the risk of litigation as well as undermining the quality of care. The inability for orthotists to have access to medical records and to keep proper notes is one of the most important issues that needs to be addressed. Keeping clinical notes is fundamental to the provision of a quality service, as without them clinical audit and other quality measures cannot be undertaken.

EXHIBIT 7

Checks made for satisfactory fit of orthoses

In almost one-third of trusts, there is no check; and in another third the check is undertaken by an untrained SAO.

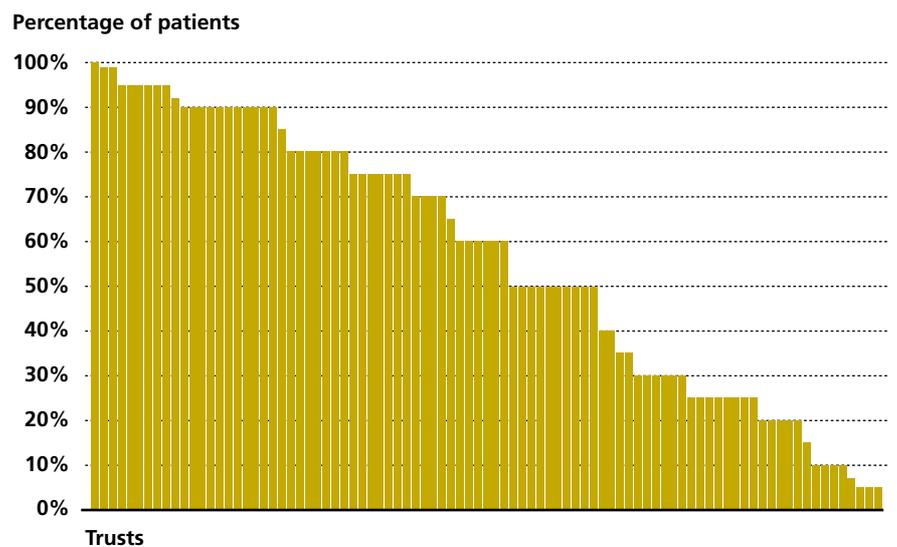


Source: Audit Commission survey, N = 150

EXHIBIT 8

Percentage of patients reviewed by the referring doctor following the supply of orthosis

There are varying standards of checking whether the orthosis actually produces the desired clinical effect.



Source: Audit Commission survey

24. Where systematic clinical review has been carried out, it often demonstrates the successful use of orthoses at low cost. For example, 15 per cent of people with diabetes will develop foot ulcers, leading to a loss of sensation, muscular control and pain. Untreated, these ulcers can have serious consequences. They are highly susceptible to infection, leading to amputation in between 5 and 15 per cent of cases. Foot ulcers are one of the most costly aspects of treating diabetes, putting a heavy load on community services (Ref. 14). However, the problem can be reduced by providing orthoses. One study found that orthotic shoes could reduce ulcers in people at high risk (the relapse or new ulcer rate in one year was 28 per cent in the intervention group, compared with 58 per cent among those who continued to wear their own shoes (p=0.009) (Ref. 15). Clinical review can also lead to cost improvements [BOX D].

25. A further area of concern identified in smaller orthotics centres is the qualifications of staff fitting orthoses. During the 1990s, the professional status of orthotists has risen, and they are now recognised as professionals supplementary to medicine. This contrasts with the position of many SAOs, who routinely fit different types of orthoses even though they have not been properly trained [EXHIBIT 9]. Only properly trained and supervised staff should be allowed to fit orthoses.

BOX D

Clinical audit can lead to cost improvements

Evidence suggests that orthoses are being provided inappropriately in the treatment of flexible flatfoot in children. Studies have shown that treatment with orthopaedic shoes, heel-cups and custom-moulded plastic inserts does not have any affect on the clinical outcome (Ref. 16). Prescribing orthoses for this condition can therefore be inappropriate. There is also evidence to suggest that orthoses are being prescribed in response to parental concerns about children's flat feet, whether or not this is clinically necessary. Prescription options can vary from a pair of orthopaedic shoes at £100 per pair, which will need replacing three times a year, to the insertion of reusable flexible moulded heel seats at £2 per pair. One response is that 'simple heel seats offer economical treatment for children whose foot deformities destroy their shoes' (Ref. 17).

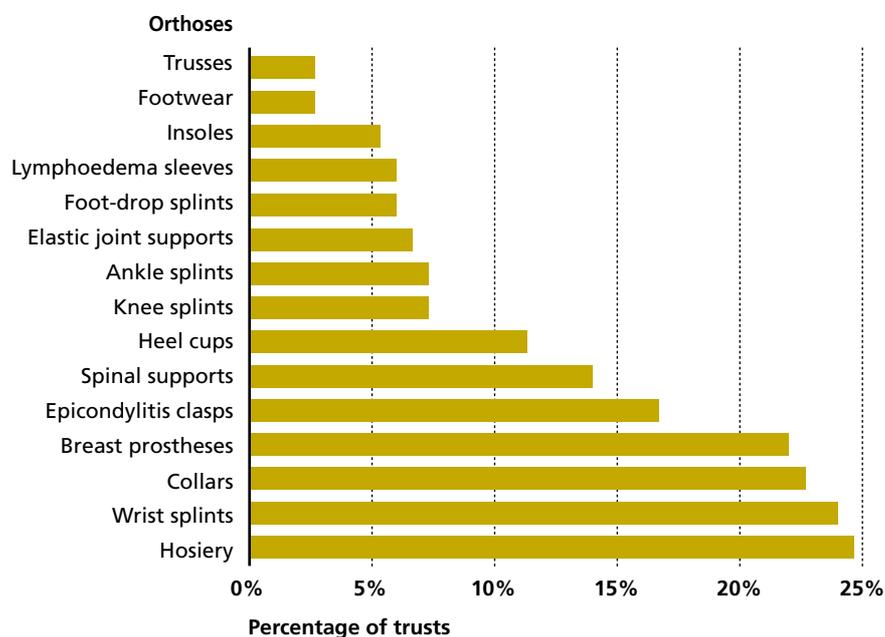
The provision of heel seats is now the accepted practice for orthotists at the Nuffield Orthotics & Rehabilitation Engineering service for the treatment of flatfoot. A peer review among orthotists identified significant variation in the treatment of flatfoot including provision of orthopaedic shoes. Guidelines have now been developed that prescribe heel seats for such cases, which has been agreed with referring consultants. The policy has provided the same clinical outcome and saved £42,500 a year.

Source: Audit Commission

EXHIBIT 9

Percentage of trusts where untrained SAOs fit orthoses

Some types of orthoses are routinely fitted by untrained SAOs.



Source: Audit Commission survey, N = 150

26. Many orthotics services are responsible for providing wigs, breast prostheses, burns garments and support stockings, which are usually fitted by SAOs. These services would be better located in clinical directorates with breast care nurse specialists, physiotherapists and vascular nurse specialists.

27. These problems in small-scale orthotics services can best be addressed through the systematic development of a 'hub-and-spoke' model that would integrate orthotics provision into wider rehabilitation services. This would provide a stronger clinical lead for the service at the 'hub' organisation and help to ensure that the efficacy of orthotic practices is more systematically considered. Such arrangements would offer regular and organised multidisciplinary assessment involving consultants, therapists, rehabilitation engineers, nurses and orthotists. Previous reports have recommended this model with specialist centres providing fully integrated orthotic, prosthetic and wheelchair services (Refs. 18, 19) as it offers better practice in assessment and prescription as well as improved outcomes [BOX E, overleaf].

BOX E**Clinical effectiveness in specialist centres**

There are specific cases that demonstrate the effectiveness of multidisciplinary teams. In particular, the involvement of orthotists in treatment of the diabetic foot has proven extremely effective.

A study at King's College Hospital, London, was based around a specialised foot clinic for diabetic patients who presented with foot ulcers and, from this, a new organised approach to treatment was derived. Over three years, it achieved a high rate of ulcer healing and reduced the number of major amputations.

The clinic brought together the skills of the orthotist, chiropodist, nurse, physician and surgeon to manage the distinctive lesions of the neuropathic and ischaemic diabetic foot. Essential aspects of management were specially constructed shoes, intense chiropody and precise antibiotic treatment. Healing was achieved in 86 per cent of neuropathic ulcers and 72 per cent of ischaemic ulcers. The relapse rate in users with special shoes was 26 per cent, compared with 83 per cent of patients who continued to wear their own shoes.

The effect on amputations was also marked. In the two years before the clinic was established, there were 11 and 12 major amputations annually. Three years after the clinic opened, only five major amputations were carried out. Minor amputations in the same period dropped from 27 and 29 in the two previous years to 15 per year.



Source: Ref. 20

Controlling costs

28. Several factors prevent the effective control of costs:

- inadequate budgetary arrangements;
- using too many suppliers;
- inadequate contracting arrangements; and
- not always achieving best prices.

Budgetary arrangements

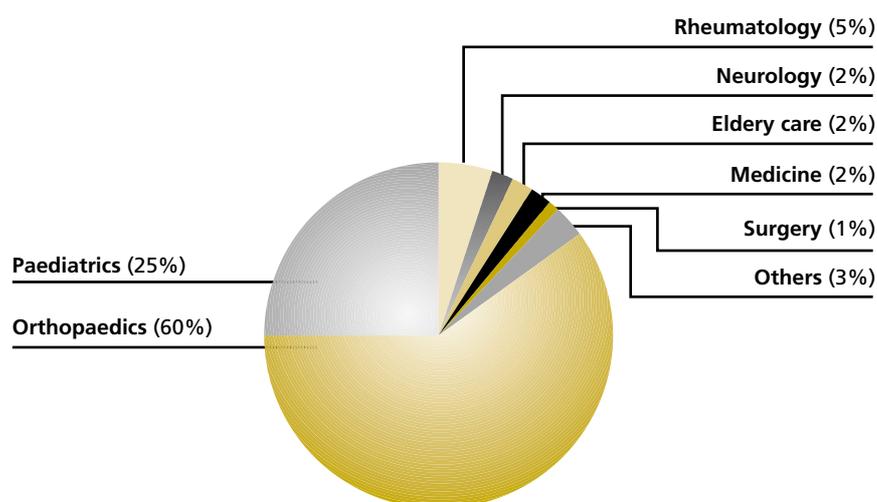
29. In many trusts, there are no formal charging arrangements between the orthotics department and the specialties or other trusts that refer patients to it. The main sources of internal referral are from the orthopaedic and paediatric specialties [EXHIBIT 10]. But at the trusts visited, there were no examples of charging arrangements to encourage the proper control of costs. In terms of directorate budget accounting, the orthotics service was tantamount to a ‘free good’, with any overspend apportioned across all the trust’s activities. Poor control is likely to result when budgets are not properly allocated to service activities.

30. The purchase of orthotics is seldom included in a separate service specification. Rather, they are usually purchased within the wider framework of orthopaedic, rheumatology, paediatric or rehabilitation services. For trusts, the cost of the orthotics service is often not separately identifiable from the costs of providing these other services, which means that opportunities for ensuring that they provide value for money may not be brought to senior management’s attention. Service specifications should be constructed so as to identify the different components of cost.

EXHIBIT 10

Sources of referral to the orthotics service

The main sources of internal referral are from orthopaedics and paediatrics.



Source: Audit Commission research sites,
N = 26

Many trusts have dealings with many suppliers, making it difficult to establish effective partnerships.

The supplier base

31. There are many suppliers of orthotic products to the NHS. The market is very fragmented, with several hundred suppliers in the UK. A review of market structure and company accounts by the Audit Commission found that the industry suffers from manufacturing over-capacity and low profit margins.

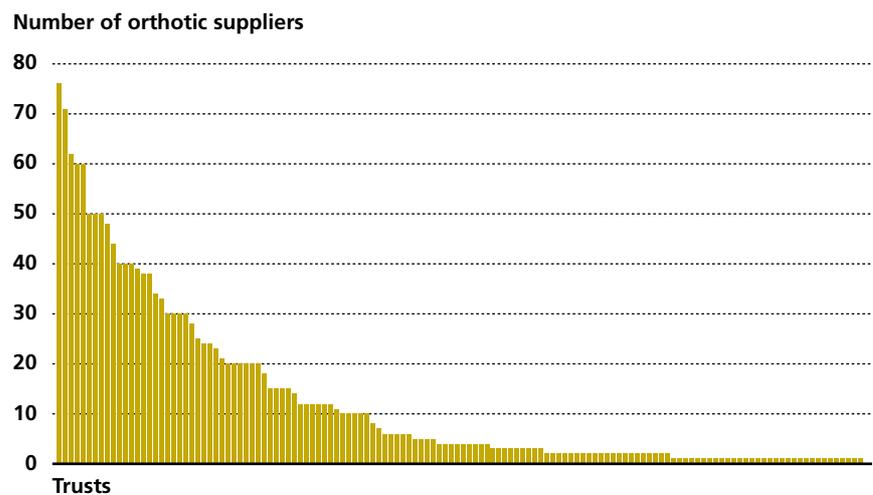
32. Many trusts have dealings with many suppliers, making it difficult to establish effective partnerships. Moreover, one of the consequences of separating the service from the supply of orthotic products has been an increase in the number of suppliers of orthotic services and products that are used by some trusts. This can mean that demand is not consolidated and opportunities to achieve volume discounts are missed [EXHIBITS 11 and 12].

33. Trusts should aggregate demand with a few supply partners to deliver a high quality range of orthoses at a fair price. In doing so, trusts must ensure that the service and supply elements of orthotics provision are separately identified, priced and contracted. In the case of more complex made-to-measure orthoses, there are advantages to service and supply being provided by the same organisation, so that orthotists can oversee the manufacture of the items that they will fit. In such circumstances, it is important to manage the potential conflict of interests that arises when orthotists work as both clinicians and salesmen. To help ensure this, there should be no cross-subsidisation between the professional service and the supply of the product.

EXHIBIT 11

Number of orthotic suppliers used by trusts

Some trusts use many suppliers.

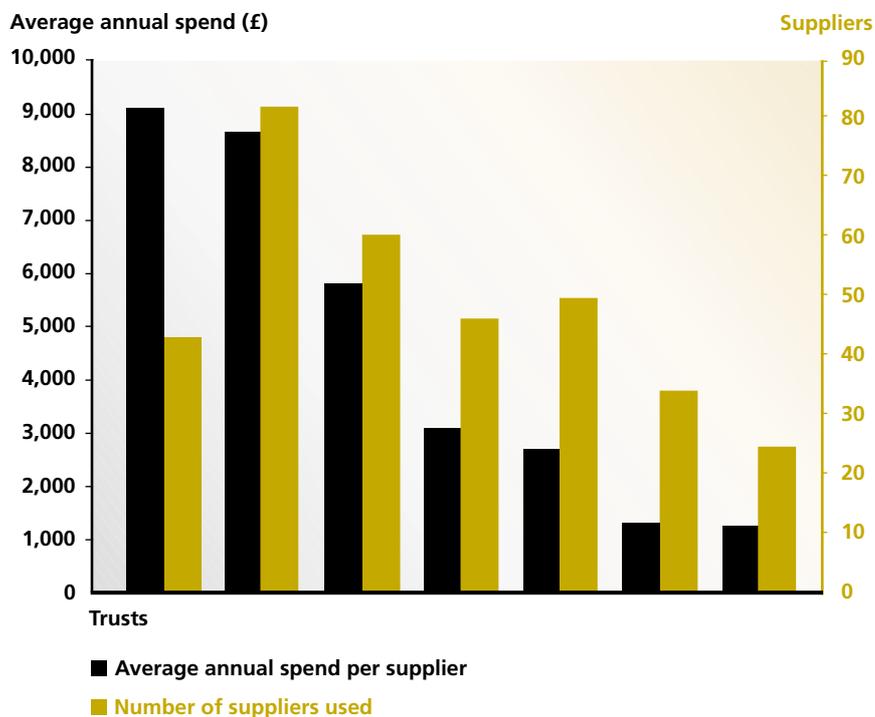


Source: Audit Commission survey, N = 150

EXHIBIT 12

Number of suppliers used and value of annual expenditure

Some trusts use many small suppliers with little aggregation of demand.



Source: Audit Commission research sites

Contracting arrangements

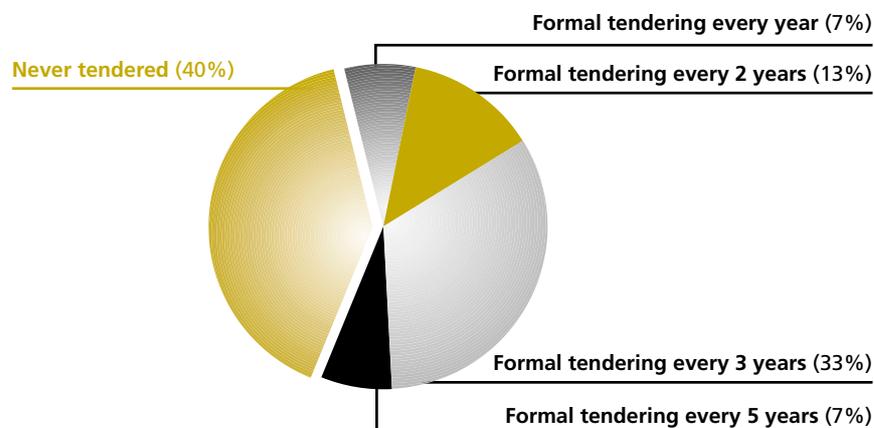
34. Orthotics services have not been subject to competition at many trusts [EXHIBIT 13, overleaf]. There is a particular reluctance to market test in-house services where awarding the contract to an alternative supplier would involve high exit costs, such as redundancy payments. There is also little evidence of service benchmarking, which should be used where the contract value does not justify the procedural costs of an open tender. Consequently, managers are left without positive reassurance about value for money.

35. Where service tenders are invited, it is common for suppliers to quote prices below cost in the expectation of making profits from prescribing their own products. This strengthens the incentive for the orthotist subsequently to fit products supplied by their own company, rather than the ones that best meet the patient's needs.

EXHIBIT 13

Time since the orthotics service was formally tendered

Many trusts do not invite tenders for their orthotics service.



Note: Each service spent more than £300,000 a year

Source: Audit Commission research sites, N = 12

Some specialist centres are able to prescribe high proportions of ready-made items despite the complexity of their patient case-mix

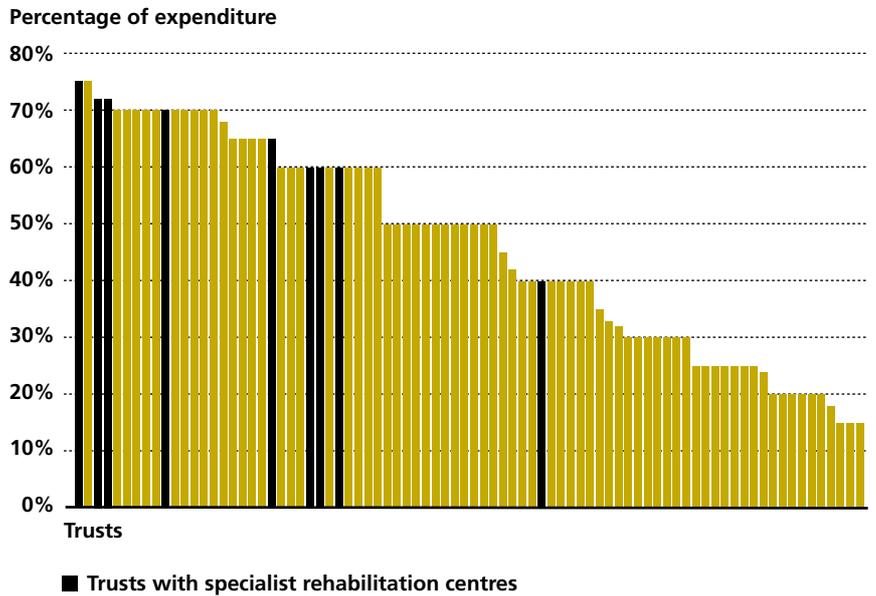
36. The benefits of market testing and then establishing long-term partnerships with a limited number of suppliers for services of adequate scale have previously been described (Ref. 21). They apply as much to the procurement of equipment as they do to other areas of supplies procurement. At one trust visited, peer review and agreement to standardise on a limited product range from fewer suppliers had delivered recurring annual savings of £30,000 on a budget of £575,000.

37. Another way of controlling orthotic costs is to increase the use of ready-made items. There is significant variation between trusts in their use, compared to made-to-measure items, but some specialist centres are able to prescribe high proportions of ready-made items despite the complexity of their patient case-mix [EXHIBIT 14]. Large savings can be achieved by adapting ready-made items, rather than prescribing made-to-measure products. Analysis from a small (and therefore possibly unrepresentative) number of trusts visited suggests that NHS orthotists tend to prescribe more ready-made shoes [EXHIBIT 15], and at less average cost [EXHIBIT 16, overleaf], than do orthotists who are employed by private companies.

EXHIBIT 14

Percentage of expenditure on ready-made orthoses

Some specialist centres are able to prescribe high proportions of ready-made items despite the complexity of their patient case-mix.

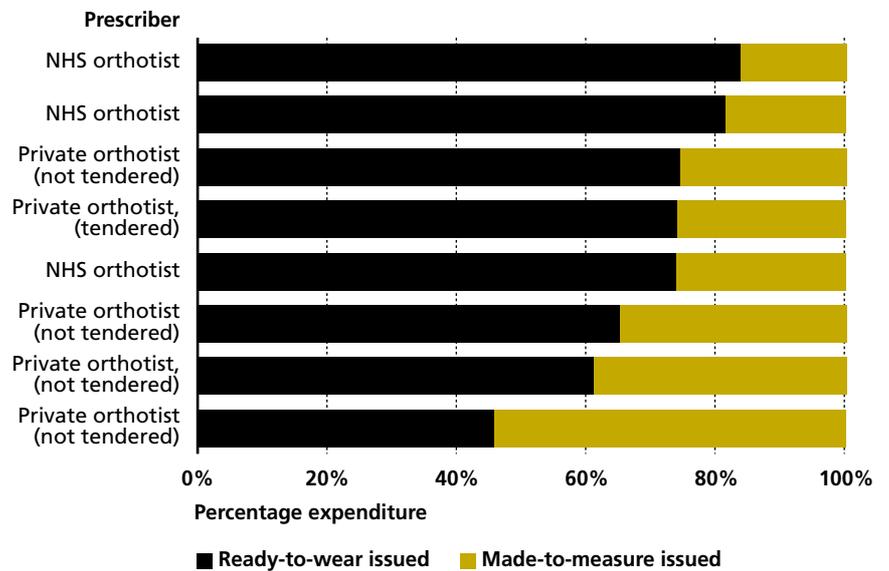


Source: Audit Commission survey, N = 150

EXHIBIT 15

Proportion of ready-made to made-to-measure shoes prescribed

NHS orthotists tend to prescribe more ready-made shoes.

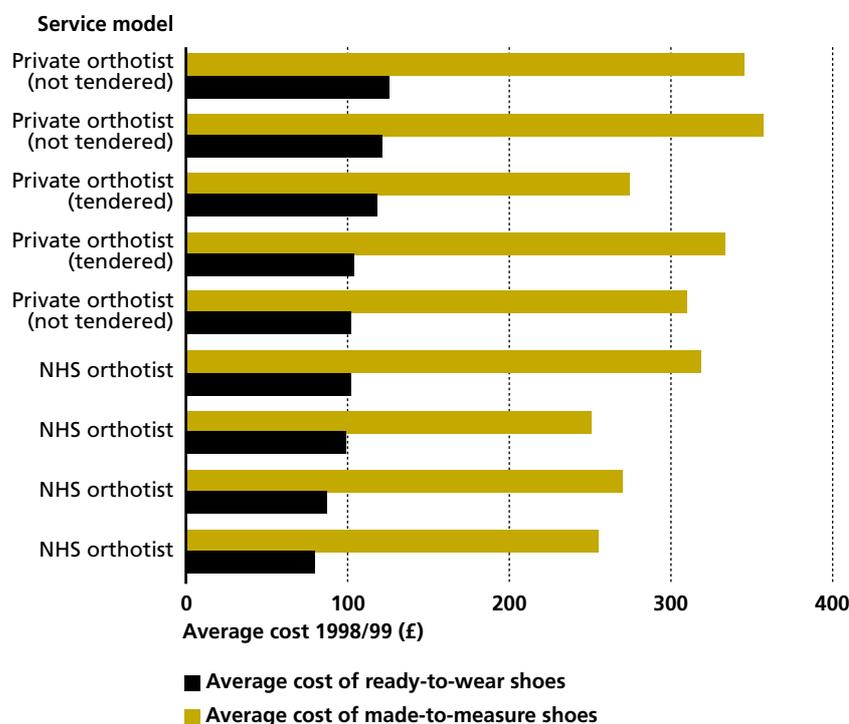


Source: Audit Commission research sites

EXHIBIT 16

Average cost of ready-made and made-to-measure shoes prescribed

NHS orthotists tend to prescribe less expensive shoes.



Source: Audit Commission research sites

38. There was no evidence at the trusts visited that adapted ready-made orthoses led to poorer clinical outcomes than made-to-measure products. And many patients prefer ready-made shoes, since they are usually more cosmetically attractive than made-to-measure ones. Trusts should therefore review the proportions of ready-made to made-to-measure orthoses and, in the case of footwear, aim to achieve a ratio of 75:25 respectively. This ratio is currently achieved by some specialist centres despite their complex case-mix of patients. At the trusts visited, average savings of £12,000 – or 11 per cent of total expenditure on footwear – would have been achieved if this target ratio had been met. Also, given the shorter supply times (see Exhibits 4 and 5), such a shift would boost this aspect of service quality too.

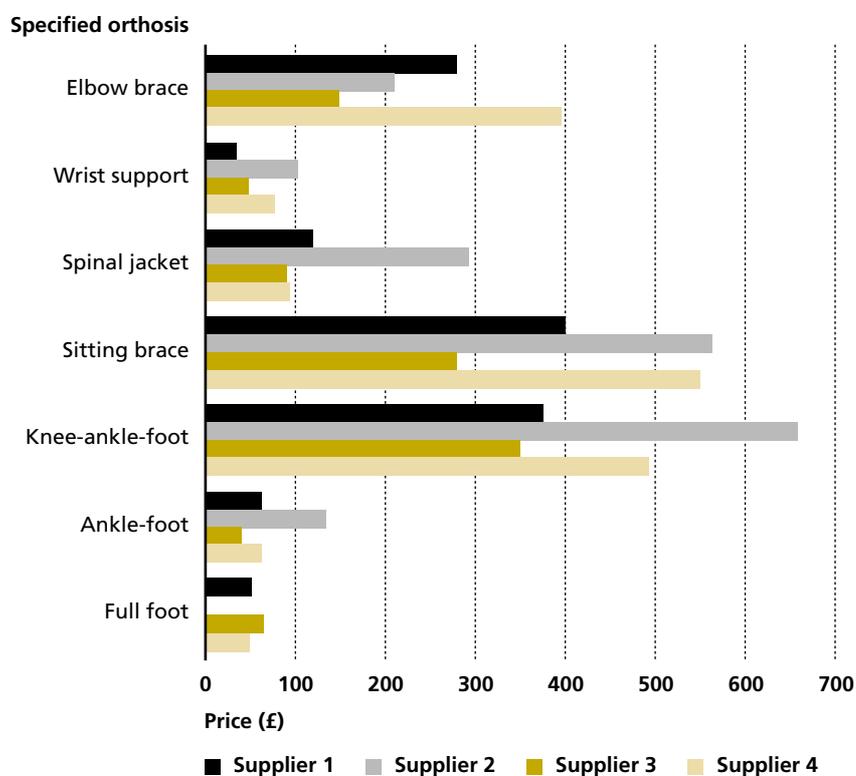
Achieving best prices

39. There is also wide variation in the prices paid to different suppliers for identical orthotic items [EXHIBIT 17]. Analysis by NHS Supplies has found a similar twofold variation between the least and the most expensive suppliers of a basket of common orthoses.

EXHIBIT 17

Variation in prices paid

Price benchmarking shows wide variation in the prices quoted by different suppliers for identical products.



Source: Audit Commission study sites

40. In order to aggregate demand for orthotic products across the NHS, NHS Supplies has established a number of national framework agreements with suppliers of orthotic products. These agreements should enable trusts to obtain high quality products at competitive prices. The framework agreements also allow trusts the opportunity to obtain further price benefits by implementing local commitment discounts that are available under agreement. However, where trusts decide not to use these national agreements, they should ensure that prices paid for orthoses are at least as competitive as those that are available through NHS Supplies' contracts.

41. An effective partnership is needed between the NHS and the industry that will ensure continuous quality improvement through a programme of research and development, and the elimination of unnecessary process and transaction costs. In particular, considerable savings could be made by streamlining ordering and payments processes if the bar-coding and ordering technologies that are commonly available in other hospital departments were extended to orthotics departments.

RECOMMENDATIONS



2 Orthotic Services

Specific recommendations for orthotic services

- 1 Trust managers should ensure adequate separation of duties where orthotists provide the services of both clinician and salesman (paragraphs 11 and 33).
- 2 Managers need to ensure that their trust chooses a model of orthotics provision that is rationally based, and has sufficient throughput to ensure a high quality service. Stand-alone orthotics services dealing with fewer than 150 patients a week are probably too small to be viable both in terms of quality and cost (paragraph 15).
- 3 Trust managers should review the scope for allowing more direct access for GPs and paramedical staff to orthotic services. Referral should be based on protocols that define the complexity of the clinical problem (paragraph 19).
- 4 Clinical audit should be established throughout the orthotics service. Orthotists require access to, and should complete, medical notes (paragraph 23).
- 5 The services provided by surgical appliance officers should be reviewed to ensure that SAOs are adequately trained and supervised for any clinical work that they undertake (paragraph 26).
- 6 The provision of services that do not require the contribution of an orthotist – such as the supply of wigs, breast prostheses and burns garments – should be placed in a more appropriate service setting (paragraph 26).
- 7 Clinicians, orthotists and managers should review current prescribing practice of orthopaedic footwear and aim to achieve a ratio of 75:25 respectively for adapted ready-made shoes and made-to-measure shoes (paragraphs 38, 39).
- 8 Trusts should use NHS Supplies' national framework agreements unless they can clearly demonstrate that better value for money can be achieved by purchasing elsewhere (paragraph 40).



3

Prosthetic Services

The 60,000 users of artificial limbs receive an uneven service. Some are pleased with the services that they receive, but many more report long waiting times and poor-quality fittings. Access to specialist expertise for users with complex needs is of paramount importance. Better value for money can be achieved through improved quality assurance arrangements.

Introduction

42. The prosthetics service fits artificial limbs and provides rehabilitation services to 60,000 users in England and Wales, of whom 51,000 are lower limb amputees. About 80 per cent of users have modular limbs, which are now generally preferred to traditional designs.

43. Prosthetic and orthotics services share many similarities in terms of the skills and training of the people involved, and in the manufacturing processes required. But the two services have very different origins. The orthotics service evolved on a piecemeal basis as a local service supported by a small cottage industry. In contrast, the prosthetics service developed as a regional service after the Second World War that was transferred to the NHS only in 1991 following the recommendations of the McColl report (Ref. 22). While there are several hundred suppliers of orthotic products to the NHS, prosthetics products are provided in the main by four companies. McColl found that there was an unhealthy lack of competition in the prosthetics market and recommended that it should be opened up to new entrants. However, few new suppliers have entered the market in the intervening years.

44. Artificial limb services are provided by 42 specialist centres in the UK – the larger centres spend over £1 million a year. Health authorities and acute trusts throughout the country refer patients to these centres.

Improving quality

Equity

45. There is less variation between areas in the provision of prosthetics services than there is in the provision of other equipment services since the nature of the service allows less local discretion. Moreover, the concentration of the service into specialist centres generates more consistency across the country, and NHS Supplies has worked with trusts to establish consistent contract standards across the UK. Out of 17 contracts reviewed:

- all specified the requirement for either five or six patients per prosthetist per session;
- eight contracts were for at least five years, to encourage the development of long-term relationships between trusts and suppliers;
- all require the participation by the contractor in clinical audit; and
- all specified that the prosthetic companies would take responsibility for holding stock (unlike orthotics services, where trusts invariably bear the cost of holding and handling stock).

There are, however, some significant variations in service standards in the areas of waiting times and efficacy.

Waiting times

46. Patients needing prostheses fall into two broad categories: those who have had a limb amputated; and those who have been born with defective limbs. In the case of amputations, most patients are referred straight to

the prosthetics centre. However, there is some evidence that late referral is taking place in some trusts. In most cases, the first appointment for the fitting of an artificial limb should take place as soon as the stump has healed (usually within four weeks) but two-thirds of patients have to wait longer than this [EXHIBIT 18].¹

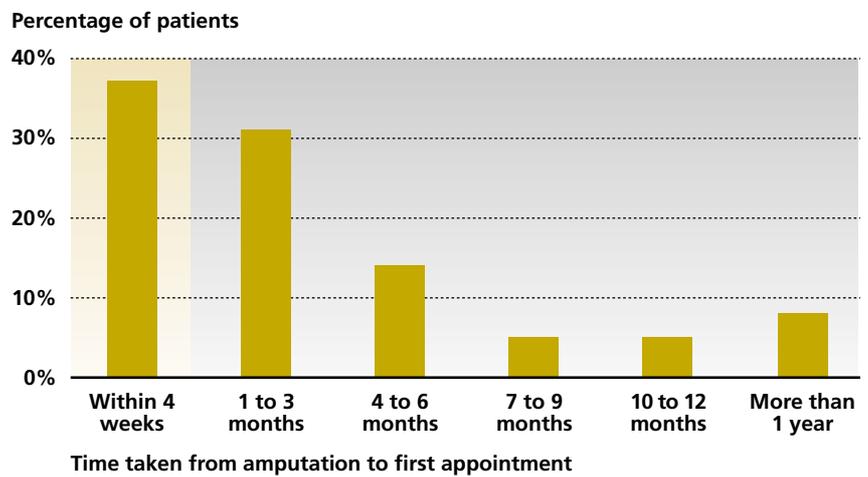
47. Some long delays also occur when repairs have to be carried out if prostheses get broken or damaged [EXHIBIT 19].

¹ Legitimate delay will occur in some cases, especially diabetic and disvascular patients, because the amputation is done at a level that has marginal blood supply. This is preferable to higher amputation.

EXHIBIT 18

Waiting times for first fitting appointment after amputation

Waiting times for two-thirds of patients is more than four weeks.

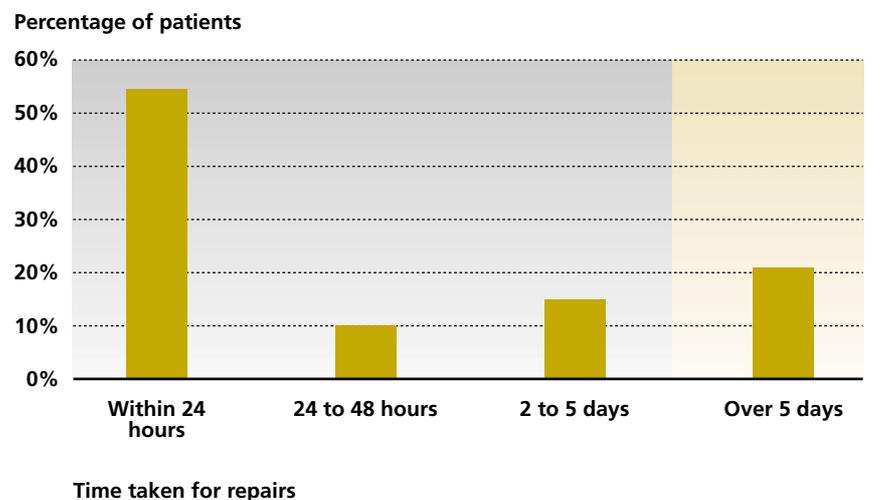


Source: Quality Health surveys 1998/99 at three trusts, N=943

EXHIBIT 19

Time taken to repair prostheses

One-fifth of repairs take more than five working days.



Source: Audit Commission research sites, N = 12

Nearly one-quarter of users report that they do not use artificial limbs as often as they would like.

Efficacy

48. Most user surveys carried out at the trusts visited found generally high patient satisfaction with their treatment. This provides some reassurance, but such patient surveys can give a false picture for several reasons.

49. Users may be reluctant to criticise services on which they depend (and, in the case of many equipment users, depend for life); and their responses may be influenced by their perception of their condition: for example, feeling grateful for the treatment for which they have waited a long time. Moreover, many users have few expectations on which to base an evaluation of the service they get; and older people generally have lower expectations. Finally, survey tools may not be sufficiently sensitive; and non-respondents may be less satisfied than respondents (Ref. 23).

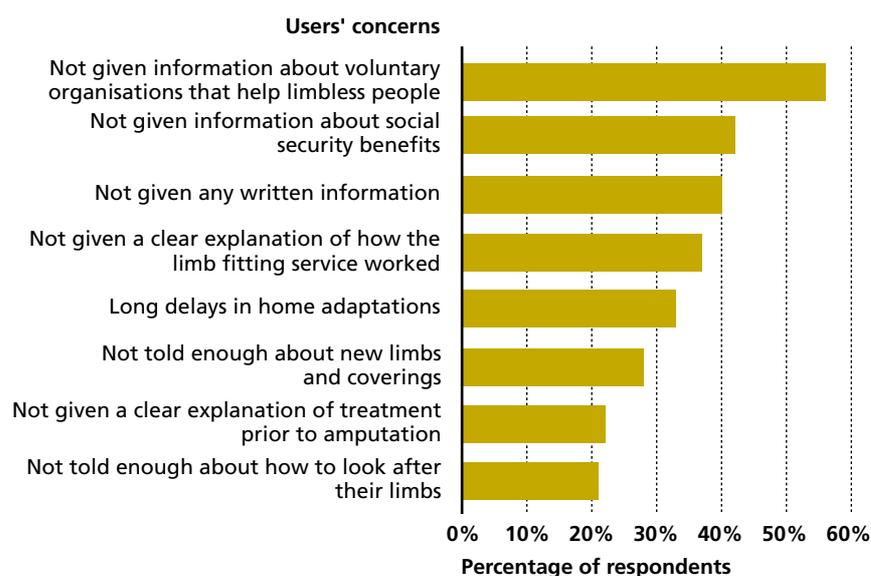
50. Surveys of adult users conducted independently can paint a less satisfactory picture of the services provided [EXHIBIT 20]. Nearly one-quarter of users report that they do not use artificial limbs as often as they would like, for a variety of reasons [EXHIBIT 21].

51. In order to test carers' satisfaction, a survey of the parents of children who needed prosthetics was conducted: children account for about 7 per cent of prosthetics users. Again, the results painted a mixed picture [EXHIBIT 22 and BOX F, overleaf].

EXHIBIT 20

User satisfaction with the prosthetics service

Surveys of adult users raise concerns about the quality of service provided.



Note: Response rate = 64 per cent

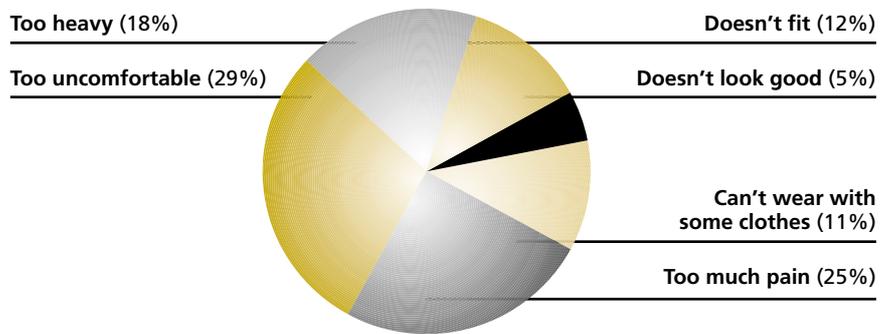
Source: *Quality Health surveys, February 1999, N = 2,300*

52. The most consistent problem identified was the difficulty faced by users with especially complex prosthetic problems in gaining access to specialist expertise in tertiary centres. This is especially important for children, as their numbers are small and their needs usually complex [CASE STUDY 3, overleaf, p39]. As with other areas of healthcare, some users resort to the private sector to obtain the quality of service that they need. Referral of complex cases to centres that do not have staff with the requisite specialist skills leads not only to poor quality care, but also to higher costs through quality failures. Previous work by the Audit Commission has investigated this problem in a wider context (Ref. 24), and stressed the importance of health authorities, working with referring clinicians, to agree criteria for access to tertiary services.

EXHIBIT 21

Reasons for not using artificial limbs

One-quarter of users report a variety of reasons why they do not use their artificial limbs.

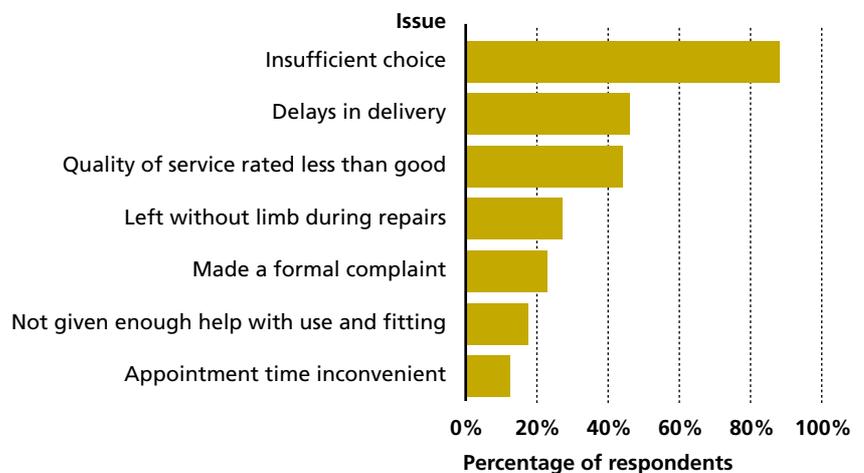


Source: Quality Health surveys, N = 2,300

EXHIBIT 22

Problems with the prosthetics service

Parents reported a range of problems in their experience of prosthetics services.



Source: Audit Commission/STEPS survey, N = 49

BOX F

Parents' comments on their experience of prosthetics services

| ISSUES | COMMENTS |
|--------------------------|--|
| The good news | |
| Overall service | 'I am extremely satisfied with service we receive.' 'The service provided at the limb centre is excellent.' 'The standard of care my son has received has always been very high.' 'I have nothing but praise for the service...' |
| Staff | 'Staff are always very helpful and ready to discuss any problems or give advice.' 'The doctor and the prosthetist are most competent and helpful.' |
| Prosthesis | 'The prosthesis fits well and is functional.' |
| Problems reported | |
| Choice | 'We have what we are given and have to really fight for something different. I think I am classed as a whinging mother.' |
| Appearance | 'The look of the prosthesis is not good – cost is always the deciding factor.' 'My daughter has been fitted with legs that are very heavy and look awful.' |
| Sports legs | 'We have had to argue to persuade the prosthetist to bend the rules in order to have a usable activity leg.' |
| Waiting times | 'The wait between measuring and fitting can be eight weeks, by which time a child of three has grown.' |
| Fit | 'It fitted for a short period before it started to hurt and rub.' 'The limb is too heavy for a young child.' 'Our child has spent the last six and a half weeks on crutches, while waiting for the sixth attempt to make a satisfactory foot.' |

Source: Audit Commission / STEPS survey

Quality and fit were both generally poor.

CASE STUDY 3

A parent's account

'Katie was born with a partial right foot and was prescribed a silicone prosthesis at the age of eight months. She did not have much muscle activity to stimulate the growth of bones in her ankle and thus her left leg began growing longer than her right leg. Failure to address the problem would lead to likely back problems in later life.'

'Katie was originally seen at a NHS centre where there were difficulties in co-ordinating appointments with her consultant, therapist and prosthetist. Furthermore, the manufacture of each foot took an average of seven weeks – quality and fit were both generally poor.'

'The consultation process was usually an 'in and out' affair and change of personnel meant that Katie saw a prosthetist with very little silicon experience. Delays in manufacture and the quality of the feet supplied got increasingly worse. Twice in the last six months the prosthetic manufacturer had 'forgotten' to make the foot. The foot supplied in July 1998 was so badly made that her foot became sore in half a day and she was unable to wear either foot or any shoes for a week. For nine months throughout 1998, Katie had been wearing a silicon foot made in January when her shoe size was 5. After nine months, her shoe size was 6½. Of the three feet made in this period, one split, one was too small and the last too big. At a final attempt, her left foot grew half a size in six weeks while waiting for the replacement foot to be 'urgently' made. When I telephoned to chase up they hadn't even started.'

'Out of concern, we arranged a private consultation. The prosthetist identified that the pitch and lie of her artificial foot wasn't right. A replacement was ready in two weeks. The foot supplied was uncannily accurate. Cosmetically to the casual glance it's difficult to see that she has a prosthesis. Technically it has been an unqualified success.'



Source: Audit Commission/STEPS survey

53. Having referred the patient to the most appropriate centre to meet their needs, continuity of care becomes important and has strong user support. Trusts should therefore allocate, in consultation with users, a named prosthetist to manage treatment on a long-term basis. Appointments should then be arranged so that patients are able to see their named prosthetist.

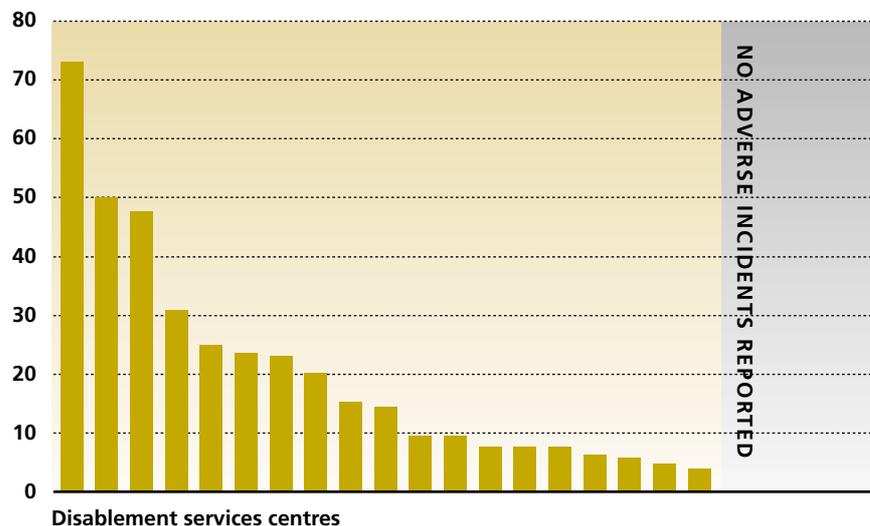
54. Manufacturers, too, have a key role to play in improving quality through the design and safety of equipment. The need for the prosthesis to be mechanically safe and have low maintenance interventions is spelt out in the emPOWER Charities Consortium Users Charter. However, the industry needs effective feedback on the quality of products and, at present, rehabilitation centres are inconsistent in their reporting of product failures and adverse incidents to the Medical Devices Agency (MDA) [EXHIBIT 23]. The level of reporting is so variable that inconsistency in reporting is evident. Without feedback, it is hard for manufacturers to improve the quality of their products. Centres therefore need to organise user involvement to ensure that both the MDA and suppliers receive adequate and consistent feedback.

EXHIBIT 23

Number of adverse incident reports on prosthetics

Centres are inconsistent in their reporting of adverse incidents to the MDA.

Adverse incident reports per 100 sessions



Source: Audit Commission analysis of data provided by the Centre for Rehabilitation Engineering, King's College London

Controlling costs

55. Trusts can take a number of steps to control costs and ensure higher quality by:

- introducing quality assurance;
- reviewing policies on the issue of spare limbs; and
- providing users with access to counselling services.

Quality assurance

56. The manufacture and assembly of prosthetics is, with the exception of two centres in England and Wales, provided to the NHS by private companies. Most trusts place reliance for quality assurance on contractors' own standards (for example, ISO 9002), which are usually included in service specifications. However, periodic sample checks at some trusts have identified savings of up to 15 per cent, mainly from challenging the category or complexity of repairs claimed by manufacturers.

57. Most trusts have now established greater control over repair contracts through the annual fee contracts promoted by NHS Supplies. Under these contracts, the labour element of the maintenance contract is fixed regardless of activity level. This feature of the contract provides an incentive for repairs to be completed efficiently.

Issuing spare limbs

58. Costs can be reduced by reviewing policies on the number of limbs issued. Users have traditionally been issued with spare limbs and, at some of the trusts visited, as many as 70 per cent of users had them. But 90 per cent of these users report that they seldom need to use their second limb, if at all. The increasing use of modular limbs and investment in a speedy and efficient repair service means that, for most users, a spare limb is not necessary. Targets for completing most repairs in less than 24 hours should be set. Once the targets are achieved, health authorities will be better placed to provide second limbs that enhance users' health, quality of life and social participation – for example, by providing more people with limbs for sports, including swimming.

59. A different policy is needed in the case of children. Children are very boisterous users of limbs and this should be encouraged as it helps to reduce perceptions of disability. Their artificial limbs therefore often require repairs. Since children grow quickly, two or three replacements a year is not uncommon, and a sensible policy therefore is keep the outgrown limb maintained and adapted as a spare limb on a continuing basis. Even one day without a limb can affect a child's education, as many are reluctant to go to school on crutches or in wheelchairs.

Counselling services

60. Analysis of the work of prosthetic centres at the trusts visited found that an average of 11 per cent of users accounted for half the demand for repair work. Service centre managers recognise a ‘revolving door’ syndrome, with the same users constantly reporting problems with their artificial limbs.

61. In some cases, there is a genuine physical or technical problem with the artificial limb that needs to be addressed by a prosthetist, and persistent problems should be referred to a consultant or a rehabilitation engineer – at a specialist centre, where appropriate. However, in some cases, the problem may be psychological and referral to a specialist counsellor may be appropriate as a supplement to, not a substitute for, an effective prosthetics service. Counselling services are available at some of the larger centres, and they report reductions in the use of the repair service after some formerly heavy users of the service received counselling. Provision for such services should be considered in health authorities’ service specifications.



RECOMMENDATIONS



3

Prosthetics Services

Specific recommendations for prosthetics services

- 1 Health authorities, working with referring clinicians, should agree criteria for access to specialist services (paragraph 52).
- 2 Trusts should allocate, in consultation with users, a named prosthetist for each patient to manage treatment on a long-term basis. Appointments should then be arranged so that patients are able to see their named prosthetist (paragraph 53).
- 3 Trusts must ensure that they report all product failures and adverse incidents to the Medical Devices Agency (paragraph 54).
- 4 Trusts should establish annual fee contracts for prosthetic repairs (paragraph 57).
- 5 Health authorities, in conjunction with local trusts, should review their policies towards the provision of spare artificial limbs. Once an adequate repair service is established, the provision of a second limb for adults should be limited to the provision of specialist sports or swimming limbs (paragraph 58).
- 6 Health authorities' service specifications for prosthetic services should include access to counselling services (paragraph 61).

4



Wheelchair and Seating Services

Wheelchair service budgets are under pressure. The application of local eligibility criteria makes provision a lottery that is dependent on postcode. Services can be improved by being more responsive to users' views, and by better practice in procurement, stock management and recycling.

Introduction

62. There are at least 640,000 wheelchair users in the UK, about 70 per cent of whom are over the age of 60 years [EXHIBIT 24]. This group of older wheelchair users are usually provided with the more basic types of wheelchair. On the other hand, younger users are more costly per head because they are the most active and independent users (provided they have the right equipment). They are also the most likely to have changing equipment needs if they suffer from neurological deteriorating conditions. This younger group tends to be the most severely disabled, and failure to supply appropriate equipment can result in severe fixed deformities in later life that require surgical interventions, affecting health, respiration, digestion and care.

63. Wheelchairs range from basic models costing about £100, to electronically powered chairs costing several thousand pounds. The NHS spends about £40 million each year on core wheelchair services, and a further £40 million is spent on staff salaries within wheelchair services. In addition, annual funding of around £12.5 million has been provided for the last four years to fund the last Government's scheme to provide (i) powered wheelchairs; and (ii) vouchers to offer financial aid to users who prefer to contribute to buying an alternative wheelchair of their choice privately.¹

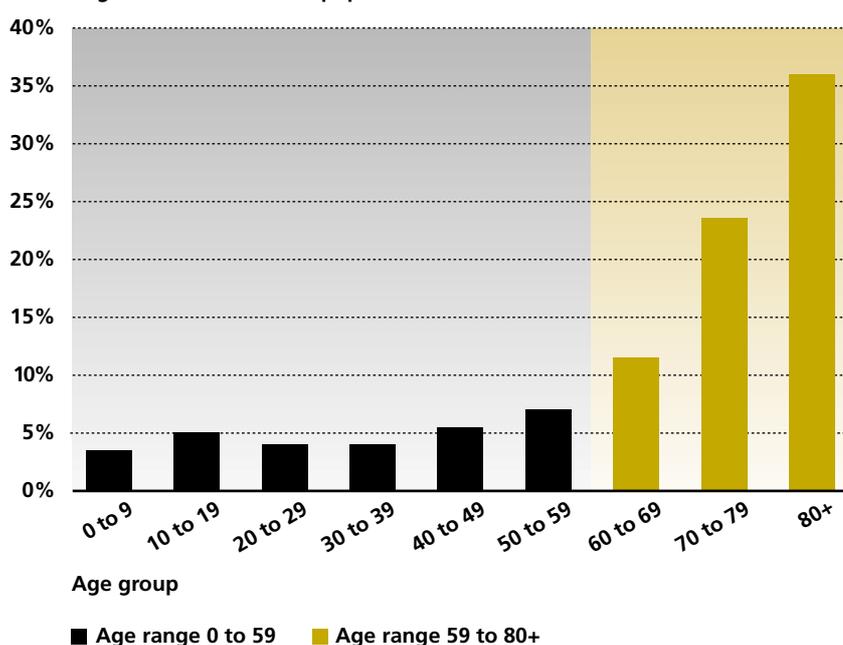
¹ This report does not discuss the powered wheelchair or voucher schemes in detail. They have recently been the subject of a recent independent review for the NHS Executive: Sanderson D et al, *Evaluation of the Powered Wheelchair and Voucher Scheme Initiatives*, York Health Economics Consortium, University of York, 1999.

EXHIBIT 24

Age distribution of wheelchair users

Seventy per cent of wheelchair users are over the age of 60.

Percentage of wheelchair user population



N = 640,000

Source: Audit Commission analysis of data provided by the Royal College of Physicians, N = 640,000

Improving quality

Some trusts provide a wide range of wheelchairs and equipment without restriction on type or cost, whereas some have established tight eligibility criteria.

Equity

64. Expenditure on wheelchair services in England and Wales has increased in cash terms from about £70 million in 1994/95 to £80 million in 1998/99 (excluding the additional funds for powered wheelchairs or the voucher scheme). However, this increase has been sufficient only to keep pace with inflation. It has been insufficient to keep pace with advancing technology (especially in the area of special seating), the costs of meeting European legislation on CE marking, and the increasing level of demand from an ageing population. The number of wheelchair users in the three years to 1998 increased by an average of 16 per cent. In consequence, most wheelchair services have had to contain demand by introducing stricter eligibility criteria.

65. Users with complex needs, particularly special seating requirements, may be referred to tertiary centres. However, most users attend one of the 150 or so local wheelchair/rehabilitation service centres that are attached to NHS trusts. Before 1991, the wheelchair service was administered at a national level, but there were still wide local variations in the quality of the service provided. Target times for the delivery of wheelchairs of 16 days for a powered wheelchair and 4 days for a non-powered wheelchair (Ref. 25) were introduced following a National Audit Office study (Ref. 26). It found that the waiting times for powered wheelchairs ranged from 13 to 143 days, and for non-powered wheelchairs from 3 to 28 days.

66. The implementation of the McColl report's recommendations of devolving wheelchair service has provided improved levels of direct assessment, but the service still suffers from inequality of provision despite the promulgation of good practice standards by the Department of Health (Ref. 27). Some trusts provide a wide range of wheelchairs and equipment without restriction on type or cost, whereas some have established tight eligibility criteria that limit the issue of chairs to those who are intensive, permanent users. Others have a much more restricted list of chairs and equipment available which is, however, available on wide criteria to anyone, including casual users [BOX G]. Such variation would not be a problem if it related to differences in need or in what local users want. But there is no evidence that this is the case. A wide variation in staffing levels per user at wheelchair centres in part reflects the varying quality standards [EXHIBIT 25, overleaf].

67. There is also wide variation in the provision of more expensive items, such as powered chairs [EXHIBIT 26, overleaf]. This means that users in some areas have to buy privately, or use a voucher to obtain a particular wheelchair that would be routinely prescribed in a neighbouring area.

Less complex cases do not necessarily require the intervention of a multidisciplinary team.

68. Users' access to wheelchair services is greatly influenced by local arrangements on who conducts assessments and where the assessments are done. There is a tendency to apply policies inflexibly, regardless of individual needs. For example, at some centres, all users are assessed at home while elsewhere, domiciliary visits are rare. Similarly, some centres provide all new users with a full multidisciplinary assessment, while others use administrative staff to decide the nature of assessment needed.

69. Such blanket approaches should be avoided. Less complex cases do not necessarily require the intervention of a multidisciplinary team or a domiciliary visit. Many services that have introduced universal domiciliary screening have created long waiting lists for assessment which all concerned regard as unacceptable.

BOX G

Differing eligibility criteria for wheelchair provision

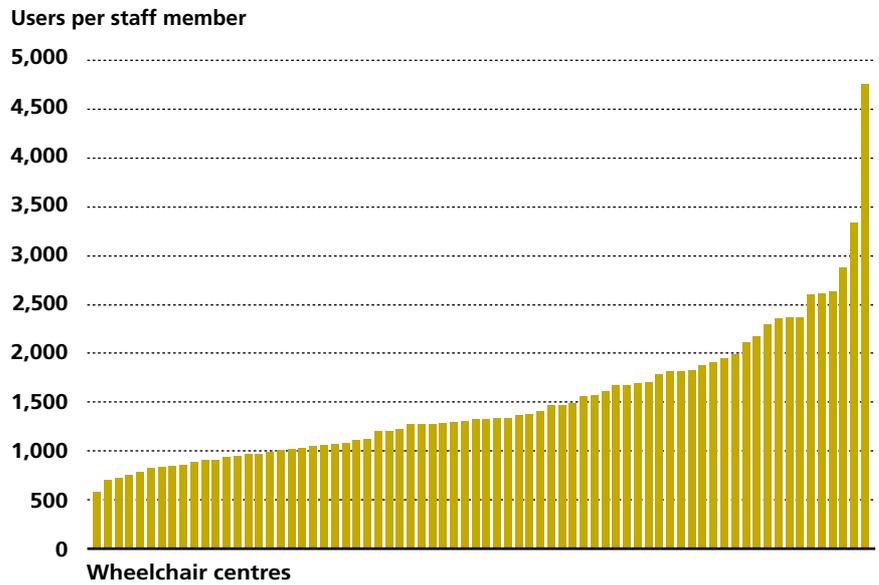
| HEALTH AUTHORITY | CRITERIA |
|------------------|---|
| A | Client must be over 30 months old with permanent or long-term mobility problems. No clinical needs are attached to criteria. |
| B | Client must suffer a chronic disability that renders them permanently wheelchair dependent for mobility, and users have to demonstrate that their quality of life will significantly benefit. |
| C | All needs, including short-term medical loans. |
| D | All users are treated on an individual basis – no criteria are published. |
| E | Loose criteria with few exclusions. |
| F | Users must have permanent disability for over six months. The only criteria is clinical need. |
| G | Wheelchairs are supplied to anyone over 30 months old with disabilities. Occasional users and users in nursing homes are afforded a low priority, but are not excluded. |
| H | All users must demonstrate a clinical need. |
| I | Users must need a wheelchair for more than six months. |
| J | Users must have limited or no walking ability that affects short-term mobility. |

Source: Audit Commission

EXHIBIT 25

Number of wheelchair users per member of staff

There is wide variation.

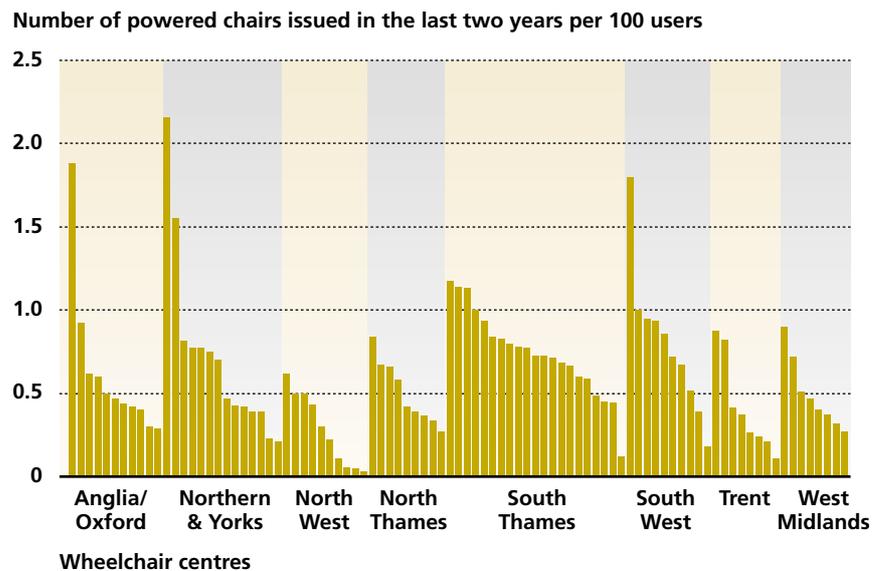


Source: Audit Commission analysis of data provided by the Centre for Rehabilitation Engineering, King's College London, N = 54

EXHIBIT 26

Distribution of powered wheelchairs by region

The allocation of resources appears inequitable.



Source: Survey undertaken by Merton and Sutton Wheelchair Service 1998, N = 50

In 40 per cent of centres, the average time taken to deliver a standard wheelchair ranged from 11 to over 20 days.

70. Wheelchair service centres should therefore ensure flexible arrangements for:

- assessing users at local clinics that are staffed by therapists, rehabilitation engineers and technicians;
- dealing with the minority of cases that require more detailed discussion and assessment at a specialist centre;
- identifying complex cases in circumstances where referrals are being made directly to the disability service by GPs and others;
- providing adequate demonstration stock; and
- a high-quality information service to users.

71. There also needs to be mechanisms for staff to screen out the majority of cases, minimise the number of domiciliary visits, but at the same time ensure that all cases requiring up-the-line attention receive it. Administrative staff need clear guidelines on such matters.

Waiting times

72. A recent survey of wheelchair service users found serious problems with waiting times [BOX H]. In 40 per cent of centres, the average time taken to deliver a standard wheelchair ranged from 11 to over 20 days [EXHIBIT 27, overleaf]. And in the case of powered chairs, over 40 per cent of centres took an average of between nine weeks to a year from referral to delivery [EXHIBIT 28, overleaf]. There is similarly wide variation in the average time taken for modifications to be made. More than one-third of centres reported an average time of more than 21 days [EXHIBIT 29, overleaf], although wheelchair centres are generally more consistent in the average time that they take to carry out repairs [EXHIBIT 30, overleaf].

BOX H

Waiting times for wheelchair services

- One-quarter of users waited over a month for an assessment.
- 10 per cent of users waited more than eight weeks to get an out-patient appointment.
- Waiting times for receiving chairs were lengthy: 17 per cent waited between one and two months, and a further 16 per cent waited over two months.
- Of those users who had had a repair made, 37 per cent said that the repairer came within two days, but 20 per cent said that they had taken more than a week to arrive.

Source: *Quality Health survey at six wheelchair centres, N = 2,300*

EXHIBIT 27

Average working days taken to deliver wheelchairs following prescription

In 40 per cent of centres, the average time taken to deliver a standard wheelchair ranged from 11 to over 20 days.

Source: Audit Commission analysis of data provided by the Centre for Rehabilitation Engineering, King's College London, N = 54

Number of wheelchair centres

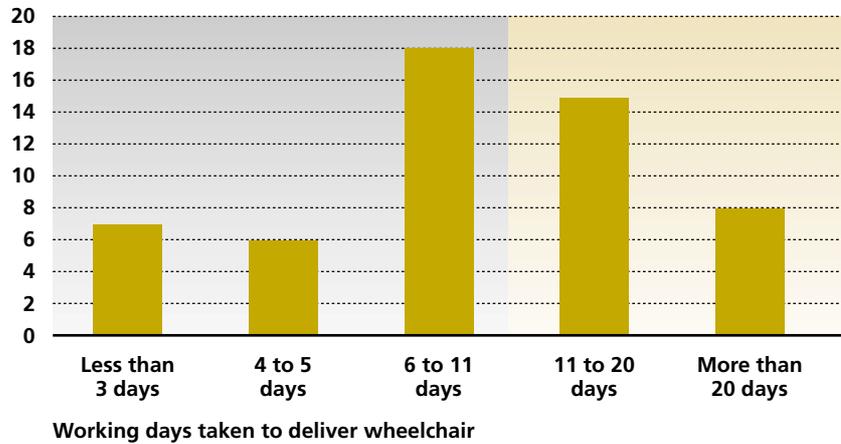


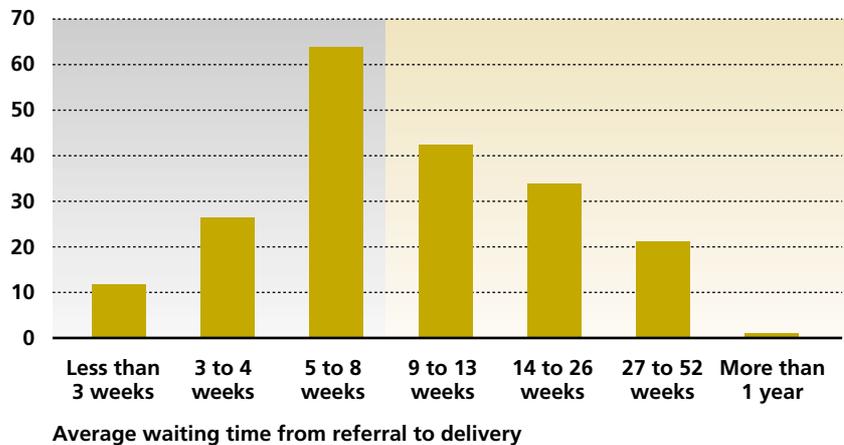
EXHIBIT 28

Average weeks taken for assessment and delivery of powered wheelchairs

40 per cent of centres took an average of between nine weeks to a year from referral to delivery.

Source: Audit Commission analysis of data provided by York Health Economics Consortium, University of York, N = 150 (multiple responses possible)

Number of wheelchair services centre



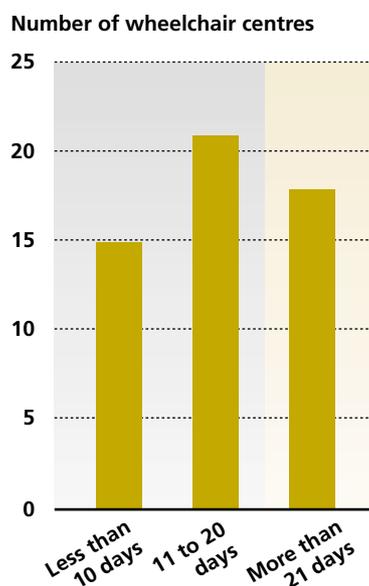
73. Long waiting times create problems for carers and users. And, in consequence, they generate complaints that sap the organisational energy needed to improve services. One wheelchair service was receiving up to 600 incoming telephone calls per day from professionals and carers, most of them chasing progress. Waiting times are therefore a major factor in driving up staff costs and is disrupting the processing of applications. It also indicates a lack of control of the application, ordering and delivery process.

74. Many health authorities need to work in conjunction with local trusts to review their current standards for providing wheelchair and special seating services. They should introduce quality improvement programmes over the next few years that will deliver the service levels currently achieved by the best performing 25 per cent of wheelchair service centres.

EXHIBIT 29

Average working days taken for modifications

Over one third of centres reported an average time of more than 21 days.

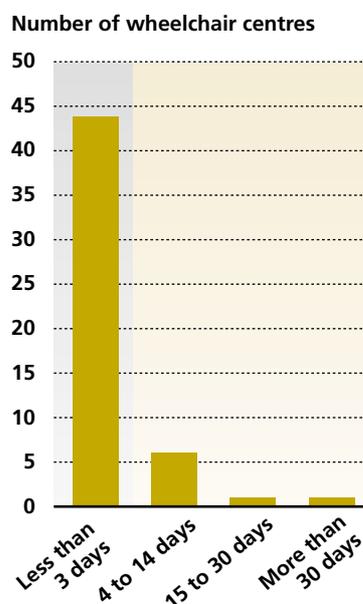


Source: Audit Commission analysis of data provided by the Centre for Rehabilitation Engineering, King's College London, N = 44

EXHIBIT 30

Average working days taken for repairs

Most repairs are done in less than three working days.



Source: Audit Commission analysis of data provided by the Centre for Rehabilitation Engineering, King's College London, N = 54

Efficacy

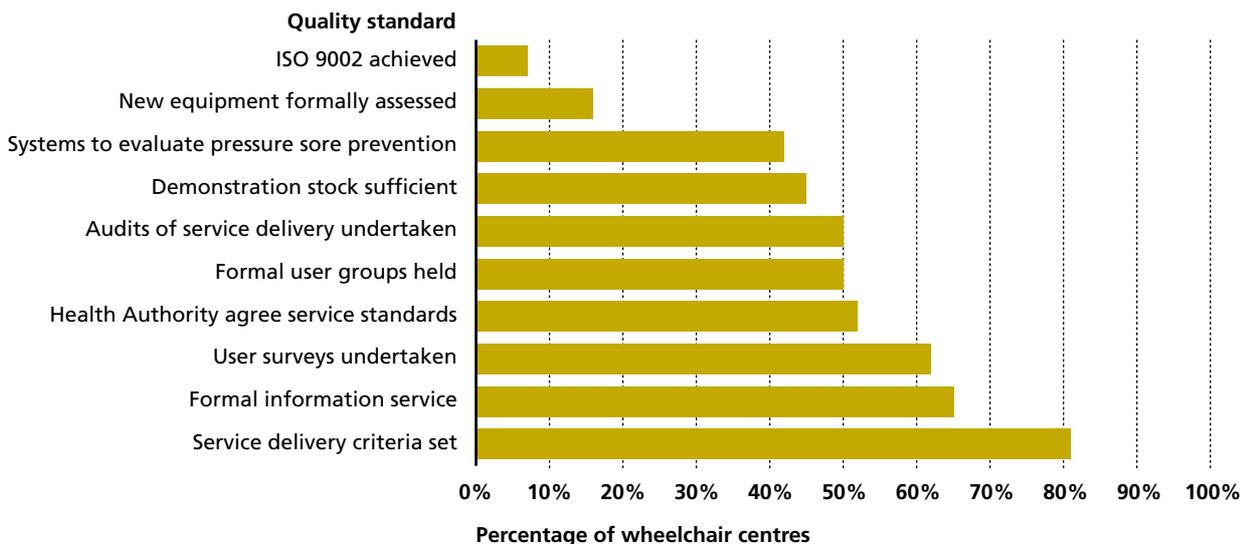
75. Quality standards in wheelchair centres vary [EXHIBIT 31]. This is reflected by different degrees of overall user satisfaction [EXHIBIT 32]. Users of the wheelchair services report a variety of concerns [EXHIBIT 33].

76. Service standards to meet defined local needs are seldom set systematically by health authorities or their associated PCGs / LHGs in agreement with users. And the evidence of structured monitoring of wheelchair centres’ own standards, either by the commissioner or the service itself, is thin. Most centres visited were found to set paper targets but were poor at implementing them in practice and at monitoring performance against standards. Moreover, some are simply too small, and have too few staff, to deliver the competencies required for systematic audit and performance management.

EXHIBIT 31

Variations in the services provided by wheelchair centres

The quality of service provided by wheelchair centres varies.



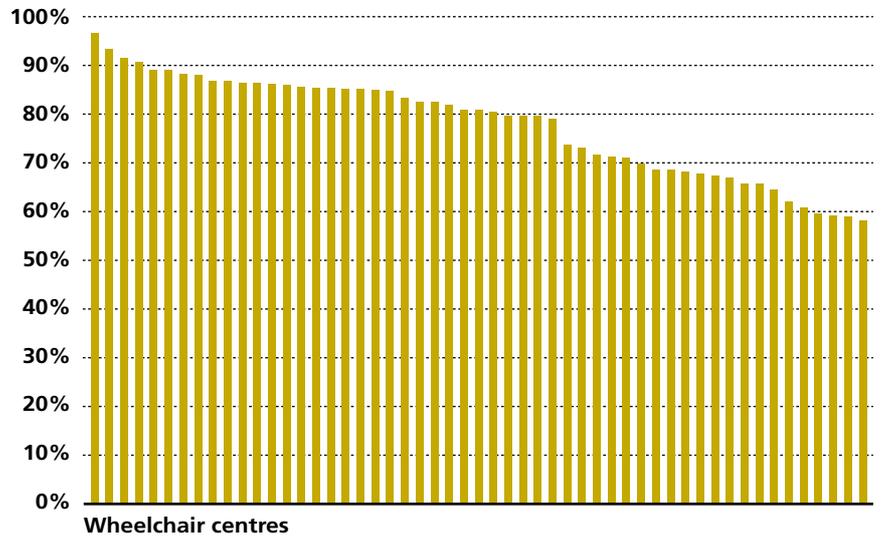
Source: Audit Commission analysis of data provided by the Centre for Rehabilitation Engineering, King’s College London, N = 54

EXHIBIT 32

User satisfaction with wheelchair services

There is wide variation in user satisfaction.

Average user satisfaction



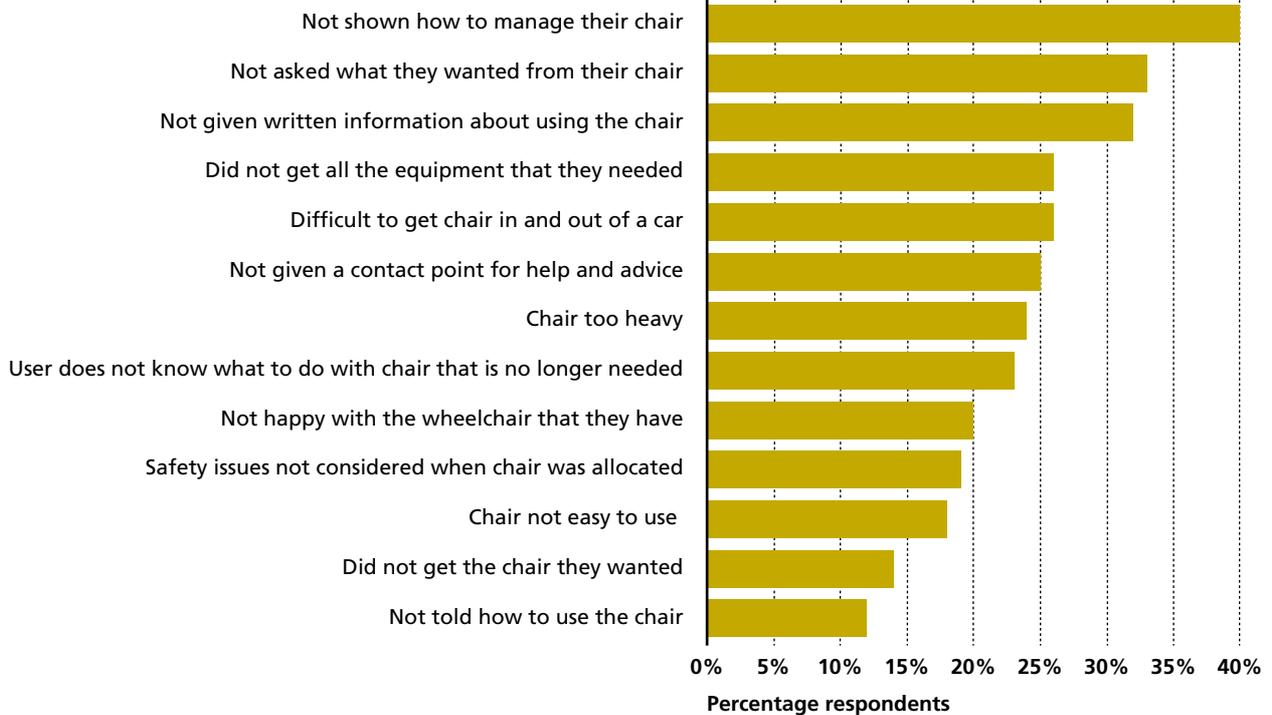
Source: Audit Commission analysis of data provided by the Centre for Rehabilitation Engineering, King's College London (responses based on 5 point scale), N = 54

EXHIBIT 33

User dissatisfaction with the wheelchair services

Users report a variety of problems.

Users' concerns



Source: Quality Health surveys at six wheelchair centres, N = 2,300

The inclusion of minimum standards for equipment in future National Priorities Guidance would provide an important spur to more equitable services.

77. Research has stressed the importance of, firstly, identifying what users want to do and then providing a wheelchair to meet those needs (Ref. 28). However, a recent survey found that only 36 per cent of new wheelchair users were asked this basic but fundamental question. Carers also need to be consulted – 82 per cent of wheelchair users depend on a carer to push them. A user-centred approach is required for all services so that a triumvirate of end-users, service providers and service commissioners collaborate with manufacturers to provide equipment that:

- takes a holistic approach to users' needs and lifestyle requirements; and
- uses individual profiles of need as the basis for choosing effective solutions.

78. Listening to users and carers can lead to significant shifts in policy. For example, the Wales Artificial Limb and Appliance Service has, following user consultation, decided that it will not issue heavier standard types of chair from the NHS range. Survey results show that one-quarter of users find that their chairs are too heavy, and many users find it difficult to get their chair in and out of a car. The National Patients Survey could be used specifically to seek the views of equipment users and their carers.

79. Wheelchair service centres should respond to this need by introducing systematic re-assessment programmes for all users (say, every five years) instead of relying on users to present themselves to their GP or put up with equipment that they find hard to use. This approach is likely to meet users' needs at an earlier stage, support user independence and reduce cost transference that could lead to more expensive care at a later stage in the acute and social services sectors.

80. Given the observed variations in standards and funding, mechanisms must be found to provide a more equitable service. The inclusion of minimum standards for equipment in future National Priorities Guidance would provide an important spur to more equitable services. But progress also depends on collaboration between government, professionals, users and the supply industry to deliver continuous improvement. For example, the National Wheelchair Managers' Forum, NHS Supplies, emPOWER, the British Healthcare Trades Association and the Department of Health have been working collaboratively on an action plan to deliver improvements in the range of wheelchairs provided.

81. Wide variations in the quality of services will be eliminated only by establishing minimum core elements in all wheelchair service centres. Centres need to comprise a skilled assessment team working in an appropriate environment, with the relevant equipment for measurement and assessment. They require adequate technical and administrative support, and should establish and monitor a number of service standards [BOX I]. Such standards should also be applied to any subsidiary contracts between the provider and their agents, such as wheelchair contractors, rehabilitation engineers and seating services.

BOX 1**Areas where wheelchair service standards should be applied**

- Access to services
- Training / accreditation of staff
- Response times
- Communication
- Lead times for delivery
- Outcomes
- Adverse incidents
- Complaints
- User satisfaction
- Response times
- A suitable assessment environment
- A range of assessment equipment
- Opportunity for referral to specialist centres
- Good communication links with other rehabilitation services
- Availability of information in an appropriate format for users, carers and referrers to the service
- A responsive repair and maintenance service
- An efficient storage and retrieval system

Source: Audit Commission

Controlling costs

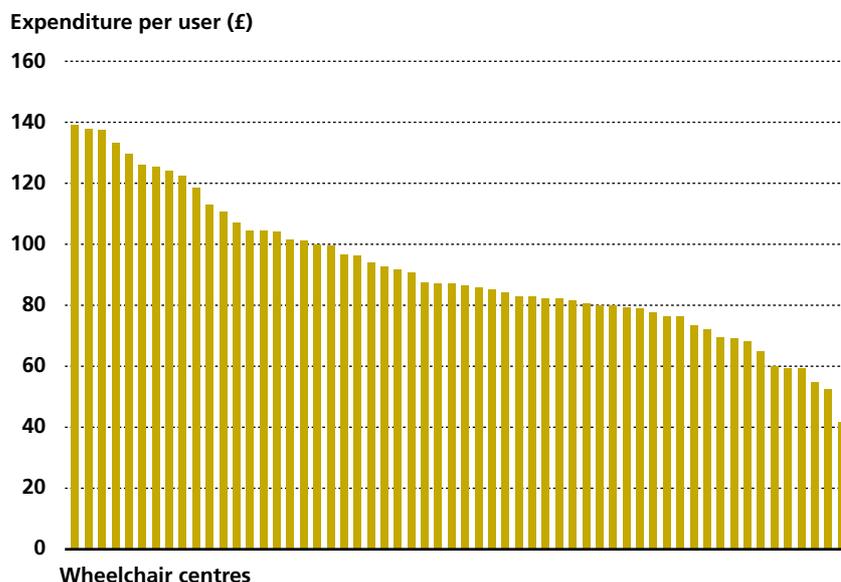
82. There is a threefold variation in the standardised amount spent by wheelchair service centres [EXHIBIT 34, overleaf]. This tends to reflect historic levels of expenditure, not a considered view of local spending priorities.

83. At most centres visited, costs had risen in recent years from the demand for pressure-relieving cushions and special seating. These products are worthy of attention, since it is often unclear whether they are provided by the wheelchair service or the community equipment service. This lack of clarity creates the risk of either duplication or incomplete provision. There are additional concerns that users are being provided with special pressure-relieving mattresses and seating, but not with suitable chairs where they may spend one-third of their day. Such incomplete provision can negate the investment made, resulting in tissue breakdown that subsequently requires nursing input or, in severe cases, hospitalisation. Health authorities have an important role to integrate provision and ensure that all users' needs are met through comprehensive packages of care.

EXHIBIT 34

Expenditure per user

Expenditure ranges by a factor of three.



Source: Audit Commission analysis of data provided by the Centre for Rehabilitation Engineering, King's College London, N = 54

Contracting

84. Despite the pressure on overall resources, some centres still incur unnecessary costs by failing to standardise on product lines and achieve volume discounts through effective contracting. Financial considerations also affect the provision of equipment known to be a priority for users, such as lighter chairs for older people. As these have traditionally been provided only to a small minority of users at high unit cost, providing these kinds of chairs has been deemed uneconomic by some services. But often these services have not considered the reduction in unit costs that would flow from volume purchases of such items.

85. At some centres visited, it was clear that a shortage of qualified therapists meant that the services were heavily dependent on their commercial suppliers for ‘clinical’ support. In such circumstances, a potential ‘clinician: salesman’ conflict of interest (discussed in Chapter 2) can easily arise. Ideally, the therapist’s role should be to specify the equipment required, with commercial suppliers recommending equipment to meet the specified need. But ultimately, it should be the therapist who makes the buying decision.

Stores management and recycling

86. Wheelchair service centres need to minimise stock-holding costs and ensure sound systems for recycling to make the best use of the funds available. However, some wheelchair services visited kept enough stock to meet demand for the next two years. This practice not only ties up money that could be invested elsewhere, but also invites the problems of obsolescence and damage as well as additional storage costs. It was also noted that these centres did not have integrated stock control records with their repair contractors, which contributed to poor control and the need to maintain excessive stocks.

87. Much better performance was observed where there was a single repair contractor working with the centre. Such partnership working enables investment in integrated stock records; and common items can be stored and controlled in a consignment arrangement whereby the approved repairer retains ownership of stock until it is needed.

88. Most wheelchair centres do not recycle anywhere near the maximum possible amount of equipment. Considerable numbers of chairs and equipment are finding their way to other parts of the NHS (rather than being returned to the wheelchair service); or are given to nursing homes. The recycling of wheelchair accessories was found to be especially weak, putting unnecessary pressure on budgets.

89. One of the root causes of these shortcomings is the lack of reliable management information. Where databases could be examined at the centres visited, they were found to contain large numbers of users who had not been in touch with the service for many years but who still had chairs and equipment on loan.

90. Ideally, equipment should be monitored using bar-coding and integrated stock control records. Being able to track individual items is important for reasons of both safety and economy. Validating databases to exclude users who have moved, died, and those who have not been in contact with the service for some time will improve cost control.

RECOMMENDATIONS



4 Wheelchair and Seating Services

Specific recommendations for wheelchair and seating services

- 1 Wheelchair service centres should arrange to assess most users at clinics close to the user's home, but ensure that the minority of cases that require more detailed assessment have access to multidisciplinary expertise (paragraphs 70 and 71).
- 2 Health authorities, in conjunction with local trusts, should review all aspects of their current service standards for delivering wheelchair and special seating services and introduce proposals to deliver incremental quality improvement programmes and achieve current upper-quartile performance levels (paragraphs 74, 81).
- 3 Wheelchair service centres should introduce systematic re-assessment programmes for all users (paragraph 79).
- 4 Wheelchair service centres should establish contracts with a limited number of approved suppliers that provide for integrated stock records, consignment stocking, and bar-coding (paragraphs 87 and 90).



5

Community Equipment Services

Effective joint working between the NHS and local authorities is essential to ensure the provision of high-quality community equipment services. Good-quality services can enable independent living in the community at low cost. The proper tracking of equipment is essential to make the best use of available funds and to minimise risk.

Introduction

...barriers have grown between the services at a time when the number of people affected at the interface between health and social care is increasing.

91. Local authority social services and NHS community trusts provide equipment to enable almost one million people to live independently in the community. The equipment provided ranges from bathmats to pressure-relieving mattresses. It is a low-cost service but one that is vital to the success of community care.

92. In Great Britain, healthcare is provided by the NHS while social care is provided separately by social services. It is well documented that barriers have grown between the services at a time when the number of people affected at the interface between health and social care is increasing (Ref. 29). These co-ordination problems frustrate the goal of 'seamless' service provision and contribute to inequalities in access to services.

93. Without proper organisation, especially across organisational boundaries, there is every likelihood that services will be duplicated or will go by default, leading to poor quality, higher costs and attempts to shift responsibility. A fragmented and poorly co-ordinated service is the result.

94. The demands made on community equipment services have to be built on effective working relationships between different NHS trusts and local authority social services because:

- equipment from social services is often required to facilitate hospital discharge by supporting home nursing;
- providing equipment and adaptations helps to prevent accidents in the home;
- equipment can be a necessary part of continuing care and community care, and often provides a better solution than other forms of (more costly) care; and
- timely supply of equipment in the community may prevent hospitalisation.

Improving quality

Equity

95. There is wide variation in the time that social services take to provide items of equipment [EXHIBIT 35]. The Audit Commission has previously highlighted the amount of district nurses' time that is spent attending to people who would have been independent had the appropriate community equipment had been available (Ref. 30).

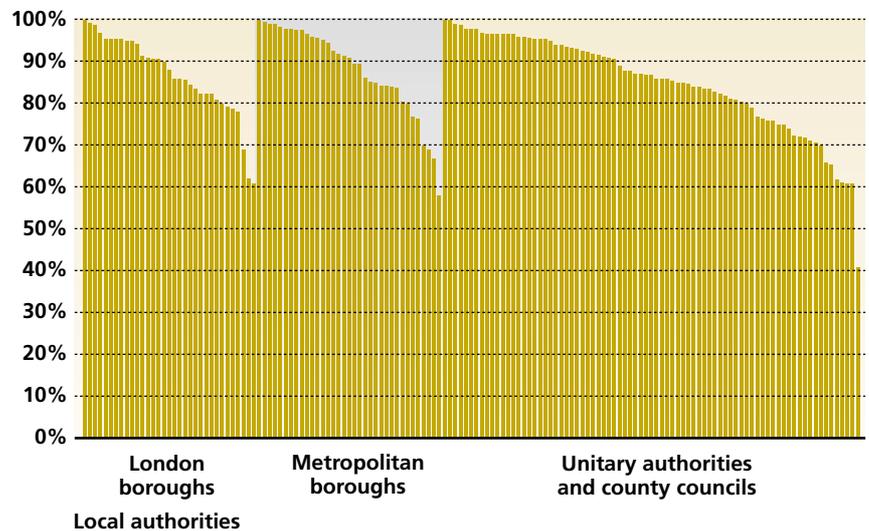
96. The Government has stated its commitment to reducing and ultimately ending inequalities in service provision across the country by ensuring that the processes for dealing with eligibility criteria and assessing users' needs are made more uniform. The national charter for adults needing long-term care and carers (Ref. 31) requires the NHS and local authorities to agree and publish local charters in consultation with users and carers, setting out standards for a range of long-term care services. These should include standards for equipment services, with target times for assessment and delivery, and standards for providing information about services.

EXHIBIT 35

Analysis of the percentage of items of equipment costing less than £1,000 provided within three weeks of assessment

There is wide variation in the overall time taken for social services to provide items of equipment.

Percentage of equipment items provided in three weeks



Source: Audit Commission Local Authority Performance Indicators, 1998/99, N = 147

Waiting times

97. Providing equipment promptly can reduce costs and provide better quality patient care – for example, by facilitating hospital discharge or preventing hospital admission. Analysis from the trusts visited showed that some hospitals continue to incur unnecessary costs because of a lack of organisation or resources in other parts of the healthcare system [EXHIBIT 36]. Health authorities and PCGs / LHGs have a vital role to play in allocating resources to where they would be most effective.

98. Pressure-relieving mattresses or special seating may be particularly cost-effective by preventing the development of pressure sores, contractures¹ or skeletal deformity. But some of the trusts visited maintained long waiting lists to keep within budget [TABLE 2].

99. Once pressure sores develop, the patient will lose dignity, suffer considerable pain, and the NHS will have to pay for district nurses' time, and / or expensive plastic surgery to solve the problem. At one trust visited, the practice was not to issue pressure-relieving devices until pressure sores had actually developed. Apart from the fact that pressure sores cause considerable pain and can be life-threatening, the cost of prevention is small compared to the cost of community nursing time required once sores have developed, or to the £35,000 cost of the in-patient episode that would be needed to treat serious cases.

Efficacy

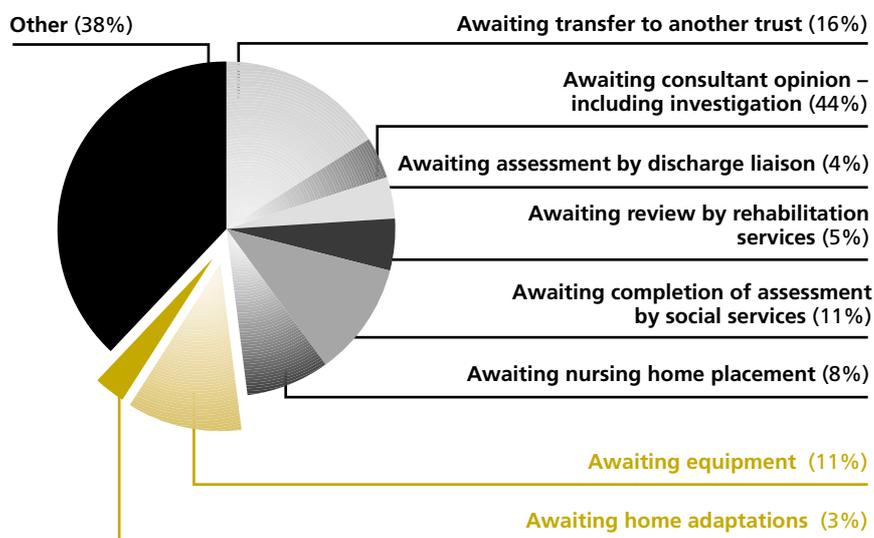
100. There is a large body of opinion that believes that not enough money is spent on community equipment, incurring higher overall costs in the longer term and hampering policies such as care in the community. The danger of 'upward substitution' and cost-transference in the referral system has already been highlighted (Ref.32) – the same problem can occur with inadequate equipment provision.

¹ Abnormal contraction of the muscle.

EXHIBIT 36

Bed days lost because of absence of community provision

Some hospitals continue to incur unnecessary costs because of a lack of organisation or resources in other parts of the healthcare system.



Source: Audit Commission research site

TABLE 2

Waiting times for pressure relieving mattresses at one trust

| Type of mattress | Longest wait (months) | Total waiting | Cost to clear backlog | Average cost per user |
|------------------|-----------------------|---------------|-----------------------|-----------------------|
| Nimbus | 8 | 47 | £150,400 | £3,200 |
| Alpha | 11 | 58 | £47,560 | £820 |
| Auto | 8 | 34 | £63,750 | £1875 |
| Spenco | 15 | 33 | £3,300 | £100 |
| Propad | 10 | 265 | £23,850 | £90 |
| Waffle/ripple | 16 | 20 | £1,420 | £71 |
| Transfoam/vaperm | 10 | 16 | £2,832 | £177 |

Source: Audit Commission research site

Such problems may push carers to breaking point.

101. The low importance that is attached to the provision of community equipment is illustrated by the lack of analysis about its clinical effectiveness. But where research has been undertaken, it has found that community equipment provides good outcomes at reduced cost [BOX J]. If a drug was discovered with a similar cost-profile, it would be hailed as the wonder-drug of the age. Some health authorities have recognised this link and used winter bed-pressure funds to provide improved community equipment, in order to permit effective early hospital discharge.

102. A further example of a low-quality service leading to higher costs can be found in the continence service. Previous reports have stressed the importance of managing continence proactively, rather than simply providing continence products (Ref. 34). That important point aside, some trusts seek to control costs either by imposing waiting lists or rationing the number of pads issued to users [EXHIBIT 37]. Patients left without enough continence pads may develop skin problems from wearing wet or soiled pads that will require treatment. However, the financial saving from rationing pads is nothing compared to the cost in human terms. Such problems may also push carers to breaking point and lead to an expensive admission to nursing home care.

103. Recent guidance from the Disabled Living Centres Council has illustrated ways to tackle some of these quality issues (Ref. 35). This work emphasises the importance of user participation and information provision to tackle the ‘equipment maze’.

BOX J

Does community equipment work (and save money)?

Humble devices like walking sticks, zimmer frames, bath benches, and simple home adaptations preserve older people’s independence and improve their quality of life. They can also cut healthcare costs in half, according to a randomised trial. Participants who had unlimited help according to need – on average 14 devices each – cost \$14,000 per person in total healthcare costs over the next 18 months. On the other hand, users given ‘standard care’, which amounted to only two devices each, cost over \$30,000 in total healthcare costs per person during the same period.

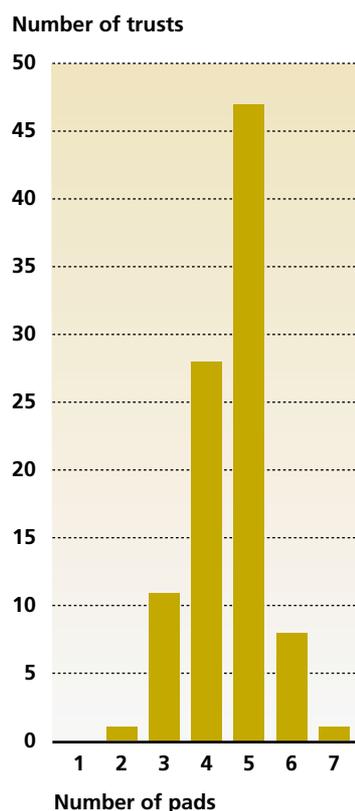
Source: Ref. 33

Controlling costs

EXHIBIT 37

Number of pads issued per patient per day

Trusts apply different criteria to control costs.



Source: Audit Commission survey, N=96

104. While acknowledging the primacy of quality considerations, there is still scope for providers of community equipment to address issues of economy and efficiency. There are several issues to consider:

- funding arrangements between the NHS and social services;
- competition;
- stores management and recycling of equipment; and
- VAT.

Joint arrangements between the NHS and social services

105. Without a joint approach to the provision of community equipment services between the NHS and local authorities, shortcomings are manifest. For example, a piece of equipment such as a commode may be supplied initially by the NHS, taken away after three months and then be replaced by an identical commode from social services. Such a fragmented approach leads to dual assessments and increased process costs, as well as considerable irritation on the part of users.

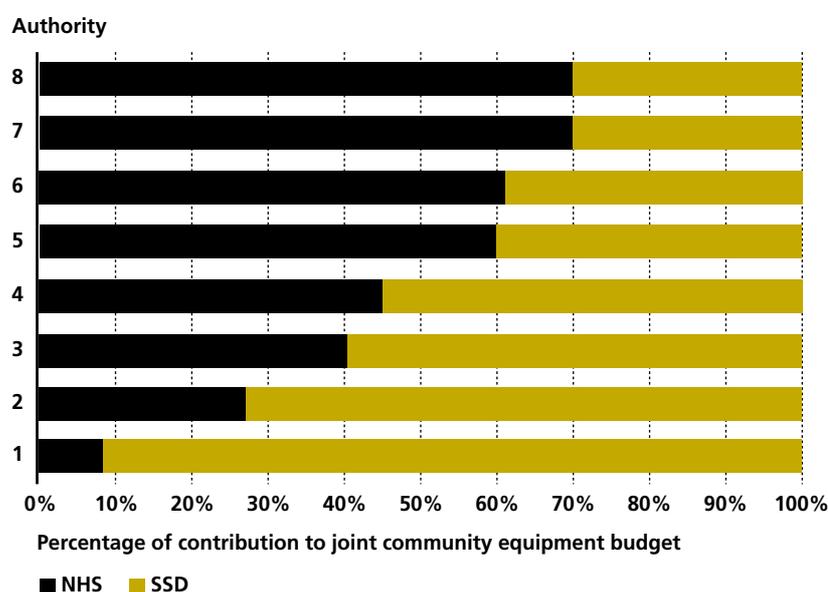
106. A significant barrier to co-operation is said to be the different financial systems and timetables operated by the NHS and local authorities. Trusts tend to know their allocations before local authorities do, and thus can have more confidence about the level of funding that they are likely to receive in future years. This is said to have hindered the development of joint commissioning in some areas.

107. However, about 30 per cent of health authority areas are now served by some sort of joint arrangements between trusts and social services. These range from jointly commissioned services to local agreements about who provides what. Joint working is a step in the right direction, but no panacea. Problems persist in some areas. In particular, there is no standard way of deciding the respective contributions between the NHS and social services and this can lead to wide variation in – and sometimes energy-sapping disagreements about – who pays what [EXHIBIT 38, overleaf].

EXHIBIT 38

Contributions to community equipment expenditure

There is wide variation in the respective contributions of the NHS and social services for the provision of community equipment.



Source: Audit Commission research sites

108. Some joint arrangements agree contributions that are based on time criteria – for example, provision for the first three months is paid for by NHS and thereafter it is paid for by social services. Others base contributions on historic patterns of spending, while others base their contributions on an agreement as to who will provide which pieces of equipment. Such criteria can create perverse incentives to shift costs to other organisations and leads to considerable user frustration.

109. A recommended formula should be agreed between the NHS Executive and the Local Government Association for the respective contributions of the NHS and local authorities towards joint community equipment services. The 1999 Health Act signals the Government’s view that such joint arrangements should become the norm. The Act gives new powers to health authorities and councils to address these traditional problems by enabling:

- *pooled budgets*, so that staff from either NHS or social services can commission or provide services from the same pool of money and integrated packages;
- *lead commissioners*, where one authority transfers funds to another; or
- *integrated provision*, where one authority takes over entire responsibility for the service.

110. The approach is underpinned by the joint national priorities guidance and new performance frameworks for health and social services.

Competition

111. The increased volume of business generated by a joint service creates opportunities for savings by standardising on product lines, aggregating demand and inviting tenders for the supply of goods. Cost savings have been achieved by loan stores that have taken this action [BOX K]. NHS Supplies has established a number of national framework agreements with suppliers of community equipment. These agreements allow trusts the opportunity to obtain further price benefits by utilising both price-banding and volume-commitment discounts. Alternatively, where trusts decide not to use these national agreements, they should ensure the prices that they pay are at least as competitive as those available from NHS Supplies' contracts. As more joint stores are established, it would be logical for those social services departments running joint equipment stores to be allowed to obtain equipment through NHS Supplies to obtain the advantages of procurement within a national purchasing strategy. This would require an extension of NHS Supplies' current remit.

BOX K

Standardisation of product range and use of competition

The Independent Living Centre in Bishop's Stortford provides a joint equipment service to the county under the auspices of Essex & Herts Community NHS Trust and Essex County Council. It issues equipment to 50,000 people each year. In recent years, the Centre has worked with community professionals to agree a standardised product range of 130 items, which account for 95 per cent of the issued items (team managers must approve any item outside the range). This exercise has resulted in reduced storage and process costs and presented the opportunity to use competitive tendering to deliver savings. In 1998, tenders were invited for five items of high value and usage:

- bathlifts;
- mattress elevators;
- hoists;
- reclining chairs; and
- beds.

By inviting tenders for each of these items, the Centre was able to reduce its supplier base by 60 per cent (reducing process and transaction costs still further), and achieved savings of £250,000 (8 per cent). Part of the tendering process was organised by the local Business Link service, which was offered by the DTI at a cost of just £2,000.

Source: Audit Commission

Some trusts seek to manage expenditure on continence products by rationing supply.

112. Previous work by the Audit Commission has examined the provision of continence services (Refs. 36, 37). About three million people, or 5 per cent of the population are affected by incontinence, across all age groups [EXHIBIT 39 and 40].

113. An estimated £28 million is spent on incontinence products by the NHS, which represents about half the national market. Trusts seek to manage expenditure on continence products by rationing supply, leading to variable standards across the country [EXHIBIT 37].

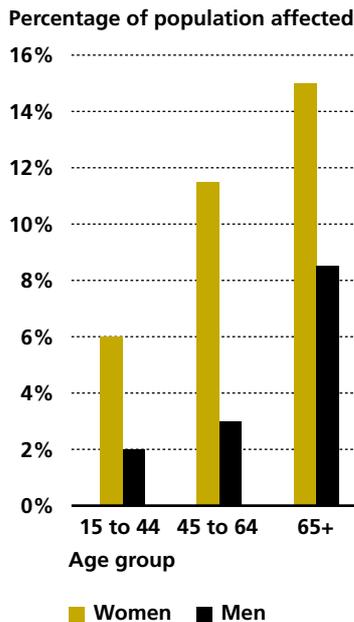
114. Incontinence products present managers of community equipment stores with problems because they are high-volume, low-unit cost items with high storage and handling costs, which contribute greatly to total delivery costs. Between a third and a half of community trusts have decided that they are not logistics and supplies experts, and so they have out-sourced the service.

115. Successful partnerships with private sector suppliers can enable trusts to achieve inclusive unit logistics prices of between 5p and 7p per person per day. Some trusts visited that have in-house services have costs nearly twice as high as this, and were found to waste community nurses’ professional time in double and triple handling of continence products.

EXHIBIT 39

Prevalence of incontinence in the adult population

All age groups are affected.

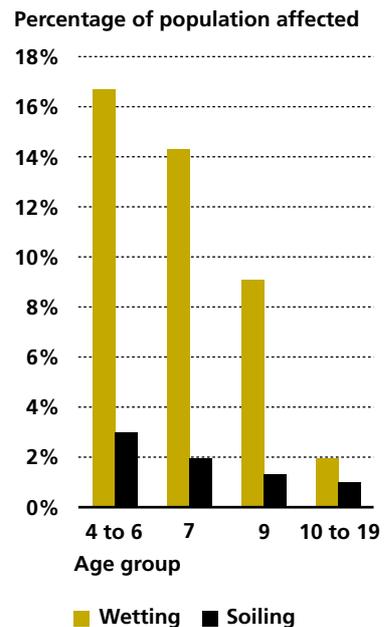


Source: Royal College of Physicians

EXHIBIT 40

Prevalence of incontinence among children

All age groups are affected.



Source: Royal College of Physicians

Stores management and recycling

116. At many equipment stores visited, performance measurement was hampered by poor management information. If the performance of an activity is not measured, it cannot be managed effectively, nor can continuous and sustainable improvements be made. A survey of loan equipment stores found that 30 per cent were unable to identify the value of goods recycled. Stock-holdings were also found to be excessive and to reflect historic re-ordering patterns.

117. Poorly organised operational processes in the stores can also consume significant amounts of professional time. For example, at one trust visited, it was found that 10 per cent of community nurses' and therapists' time – equivalent to £500,000 of staff time – was spent in locating, retrieving, delivering and collecting community equipment. In addition, community nursing staff at the trust were found to be cleaning used and soiled equipment in a hand basin in the disabled persons' toilet. Such practice can be a false economy and expose trusts to enormous risk through inadequate infection control. Recent guidance from the Medical Devices Agency sets clear standards in this area (Ref. 38).

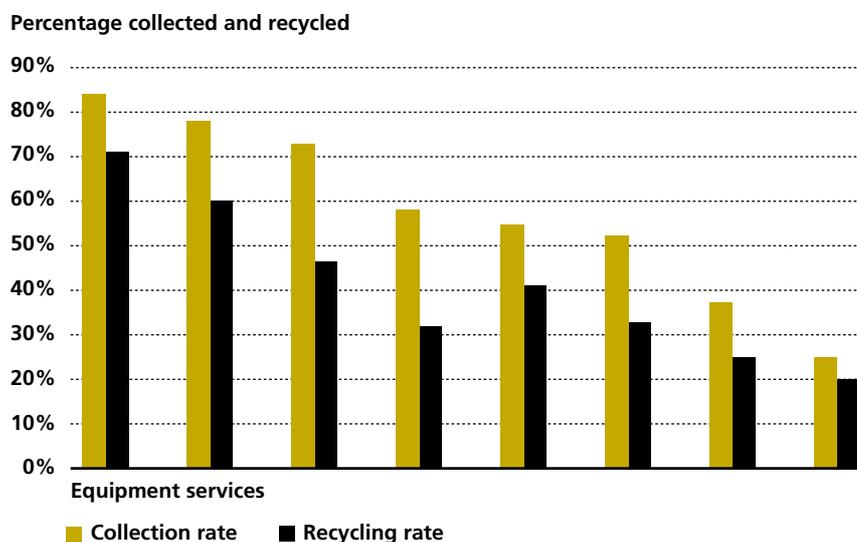
118. The key to controlling costs is acting on information to ensure that equipment is collected and recycled at an adequate rate. Some joint stores recycle as little as 20 per cent of items by value [EXHIBIT 41].

119. Recycling rates can be increased: firstly, by obtaining accurate information; and then, by targeting the recycling of the most expensive items. One-quarter of all equipment issued accounted for three-quarters of total expenditure. Such a concentrated effort can lead to higher service levels with little additional investment [EXHIBIT 42, overleaf]. Recycling is also encouraged if budgetary incentives are provided to staff [EXHIBIT 43 and CASE STUDY 4, overleaf].

EXHIBIT 41

Percentage of community equipment collected and recycled

Some joint stores recycle as little as 20 per cent of items.

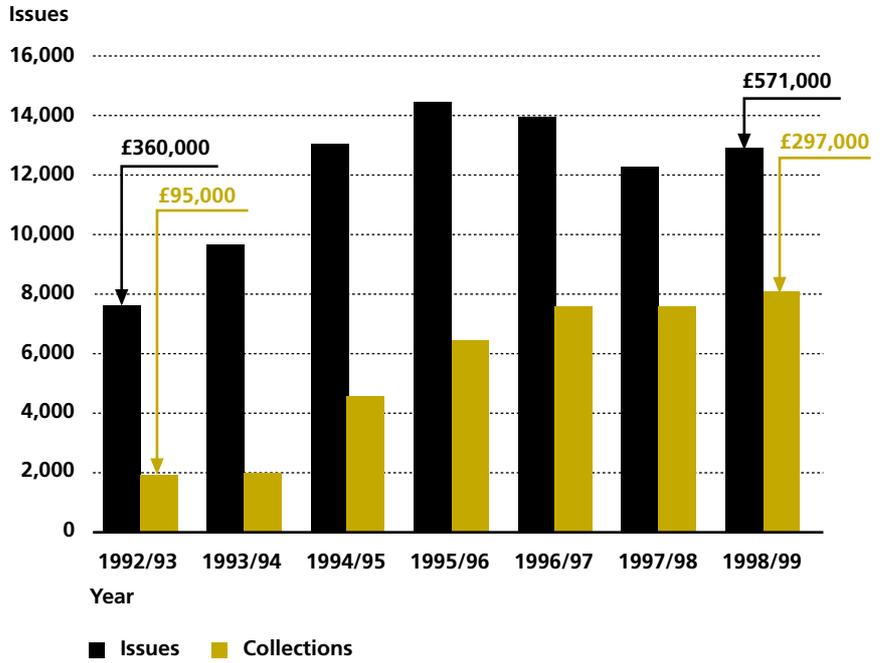


Source: Audit Commission research sites

EXHIBIT 42

Recycling rates at Hillingdon Social Services

Recycling rates can be increased over time through concerted management attention.

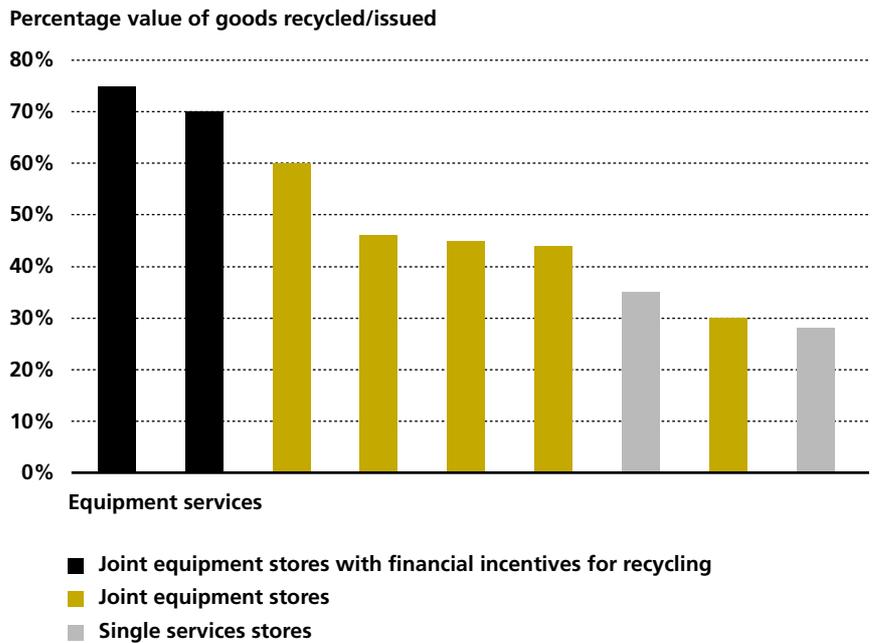


Source: Audit Commission

EXHIBIT 43

Percentage of community equipment recycled

Recycling rates can be increased over time by providing financial incentives to recycle equipment.



Source: Audit Commission research sites

CASE STUDY 4

Local Health Partnerships NHS Trust central equipment store

The central equipment store provides community loan equipment for health and social services in southern and eastern Suffolk. The store is run by the local NHS trust and employs 15.3 whole-time equivalent staff and has an annual operating budget of £268,000. It delivered 40,609 loan equipment items in 1998/99 with a value of £1.19 million. It operates as the ordering, storing, distribution, collection, cleaning and repair service to social services, one community trust and one acute trust.

The current operation features:

- good road access to trunk roads;
- an established computerised system with requisition, stock, delivery and administration menus; and
- a charging system where clinical staff are charged for assets issued in their name and credited when these are returned.

The computerised system is key to the successful operation of the store. It is bespoke to the Trust and has been developed over a number of years. It has, among other features: in-built minimum stock levels for all equipment items, automatic recall letters, records of all inspections for electrical and other equipment and charging

facilities. The charging facility is also central to the successful operation of the system. When a piece of equipment is requested, the requisitioning clinician is billed at the end of each month for the cost of the equipment. If the equipment is returned within 30 days, a 100 per cent credit is made to their account; for any time over 30 days an 80 per cent credit is made, even if the equipment is subsequently scrapped. Consequently, there is an incentive to return the equipment because this 'frees up' more of the budget to provide loan equipment.

All equipment will be collected except grab rails (there are around 10,000 currently on loan), but a specific journey would not be made merely to collect walking sticks and other low-cost items.

The main benefits have been:

- a direct financial incentive for staff to ensure collection of equipment, particularly high-cost items: 84 per cent of items, by value, delivered in 1998/99 were subsequently collected (compared with an average of 50 per cent before);
- accountability of clinical staff for the equipment that they order;
- accurate stock levels and management of stock; and
- better planning of the

equipment service in the medium to long term; information from the system has enabled specific bids for extra funding to respond to rapidly changing demographic needs for the service.

The current system will also enable the store to tender for the service to PCGs / PCTs because it can identify the cost of the service, and equipment delivered, to these new purchasers.

Managers plan further developments:

- full integration of invoicing and debit/crediting accounts within the current computerised system;
- a computerised network to allow local direct access by clinical staff to the system;
- fully computerised 'paperless' requisitioning process to speed up the process and reduce average waiting times for equipment;
- movement to a purpose-built store with separate entrances for the delivery of clean equipment, and collection of dirty equipment, to meet best practice in infection control standards and flow control; and
- further involvement in the budgeting and planning of new equipment purchasing.

Source: Audit Commission

High rates of recycling can be achieved only through effective tracking systems.

120. At the centres visited, recycling rates were highest where the equipment store was accessible and had a high public profile (for example, the Red Cross store in Leicester). Recycling can also be improved by asking community staff to assess the likely length of the loan, and once the estimated period is reached, sending a reminder by postcard. Delivery sheets should also provide a telephone number and address, requesting that when an item is no longer needed, it can be collected or returned. Delivery rounds can be organised to collect equipment to prevent special collections, which on their own would be more expensive than the value of the item collected. High rates of recycling can be achieved only through effective tracking systems, particularly the use of bar-coding [CASE STUDY 5].

121. Effective tracking systems are also important in the event that those goods have to be recalled. For example, one manufacturer needed to recall over 500 bathlifts from social services authorities to investigate a possible design fault. But this proved to be impossible because the majority of departments that had purchased the bathlifts had not kept a record of the names of users to whom the equipment had been issued.

122. Organisations that do not maintain proper records expose themselves to the risk of litigation. They could become liable if a defective product causes injury or damage and they cannot identify either the manufacturer of the product or the name of the supplier. Proper records should be retained of the product; suppliers' and sub-contractors' serial and batch numbers; the date issued; the user; the instructions issued; and repairs and maintenance carried out (Ref. 39).

Value added tax

123. At some joint community loan stores visited, there was confusion about the payment and recovery of Value Added Tax (VAT). In simplistic terms, the VAT paid on items purchased for 'social services' provision can be reclaimed; but it must be paid on items purchased for 'health' provision. But, in practice, professionals themselves cannot always decide if a person's problem is a social care problem or a health problem; in reality, they are often both. Attempts to determine a hard and fast division of responsibility for equipment between the NHS and social services are likely to fail because:

- people's needs are complex and changing and do not fit into statutory pigeon-holes; and
- attempts are made to construct logical divisions on the back of legislation that is too imprecise to support them.

124. The current view of HM Customs and Excise is explained in Appendix 2. However, it was clear from the organisations visited that there are wide discrepancies in the way that local inspectors of taxes impose VAT. The NHS Executive, National Assembly for Wales, Local Government Association and Customs and Excise should work together

to simplify the regulations and provide a consistent treatment for VAT. This would overcome an important obstacle to effective partnership working and the establishment of joint working.

CASE STUDY 5

Northampton Community Healthcare loan store

Northampton Community Healthcare loan store provides community loan equipment and wheelchairs for health and social services in southern and eastern Northamptonshire. The store issued 12,360 loan equipment items in 1998/99. It has introduced bar-coding for most of the equipment that it supplies.

The introduction of bar-coding was as part of a trust-wide initiative to ensure better management of assets. The principal aims for the equipment store were:

- to enable accurate stock control, and more effective use of equipment;
- to improve accountability of clinical staff for the equipment they requisitioned; previously staff would take out several items of equipment from the store to try with the patient. These were not always returned promptly, so making stock control extremely difficult and stock-outs common;
- to respond to issues of legal liability for the trust arising from CE-marking; and
- to identify the effective 'life' of different types of equipment to aid service delivery and purchasing strategies.

The bar-coding system was introduced as a pilot for a wider implementation scheme throughout the trust based on a development of the existing computerised wheelchair management system. Implementation was over one year, with coding phased in by equipment type. Clinical staff were kept informed of the changes, and those with direct access to satellite stores were trained to use the system.

New equipment is now logged on to the system and a unique code produced and attached. Each member of clinical staff has a unique PIN number that must be quoted for orders, and it is their responsibility to ensure that equipment is returned to the store. As the system identifies the location of the item, individual items can be tracked.

The main benefits have been:

- increased accountability for clinical staff and lack of abuse of the system;
- more accurate stock levels and improved management information on the operation of the service which can be passed on to clinical staff;
- better use of equipment; and

- better planning of the equipment service in the medium to long term; information from the system has enabled specific bids for extra funding to respond to rapidly changing demographic needs for the service.

The system has also aided application for ISO9002 accreditation in anticipation of PCTs inviting tenders for the service.

Managers would like to see further developments:

- continued training of clinical staff to access and use the system to help in the care of patients;
- a computerised network to allow local direct access by clinical staff to the system;
- a fully automated requisitioning process;
- a system for charging clinical staff for the use of equipment, with a credit to their account for returning it, to ensure better collection rates and decision-making when choosing increasing amounts of non-standard equipment; and
- trailing a system where items that are not economical to collect or clean are written off on delivery.

Source: Audit Commission

RECOMMENDATIONS



5 Community Equipment Services

Specific recommendations for community equipment services

- 1 Health authorities and local authorities should agree and publish local charters in consultation with users and carers, setting out standards for a range of long-term care services. These should include standards for equipment services, with target times for assessment and delivery, and standards for providing information about services (paragraph 96).
- 2 NHS trusts and local authorities should review the quality of their community equipment services in the light of guidance from the Disabled Living Centres Council (paragraph 103).
- 3 NHS trusts and local authorities should establish joint community equipment services and stores (paragraphs 106, 108).
- 4 A recommended formula should be agreed between the NHS Executive and the Local Government Association for the respective contributions of the NHS and local authorities towards joint community equipment stores (paragraph 109).
- 5 Trusts should use NHS Supplies' national framework agreements for supplying community equipment, unless they are convinced of, and can demonstrate that they can achieve, better value for money elsewhere (paragraph 111).
- 6 NHS Supplies' remit should be extended to enable social services authorities that run joint equipment stores to purchase community equipment through national contracts (paragraph 111).
- 7 Loan store managers should place a premium on the recycling of equipment, concentrating their efforts on the recycling of high-value items, and aim to recycle 70 per cent of items by value (paragraphs 118, 119, 120).
- 8 Agreement should be reached between the NHS Executive, the Local Government Association and HM Customs and Excise regarding the application of value added tax to community equipment services (paragraph 124).



6

Audiology Services

Nowhere is the cost vs quality debate in public service provision better exemplified than in the provision of hearing aids. Millions of people could benefit from reduced waiting times and the provision of more modern hearing aids, and from the integration of NHS hearing aid services with local authority assistive listening services.

Introduction

125. There are as many as five to six million people in the UK who would benefit substantially from using an appropriate hearing aid (Ref. 40) but fewer than two million people have one (Ref. 41). The reasons for this level of unmet need are well researched [BOX L]. Hearing loss is associated with advancing age [EXHIBIT 44], so the number of hearing impaired people in England and Wales will grow by over 20 per cent in the next ten years as the population ages (Ref. 42) and as technology and design improve to meet a wider spectrum of needs.

126. NHS audiology services cost £55 million in total annually. About £25 million is spent on aids and batteries, the rest on staff. Services are provided at 250 centres, which are attached mainly to the Ear, Nose and Throat (ENT) or audiology departments of trusts.

127. The NHS provides aids to about 80 per cent of users.¹ Each year, it issues between 500,000 and 600,000 hearing aids, and there are approximately 220,000 new users each year. Audiology centres provide hearing aids that are purchased through NHS Supplies in over 90 per cent of cases. Audiology service providers have discretion to make arrangements for supplying commercially available aids if there is an exceptional clinical need, and they are more likely to exercise this discretion if the patient is relatively young. However, the exercise of this discretion depends on local priorities and resources.

¹ The Medical Research Council ENT survey 1999 found that 81 per cent of users have NHS aids, 12 per cent have private aids and 7 per cent have both.

BOX L

Reasons why those in need do not use hearing aids

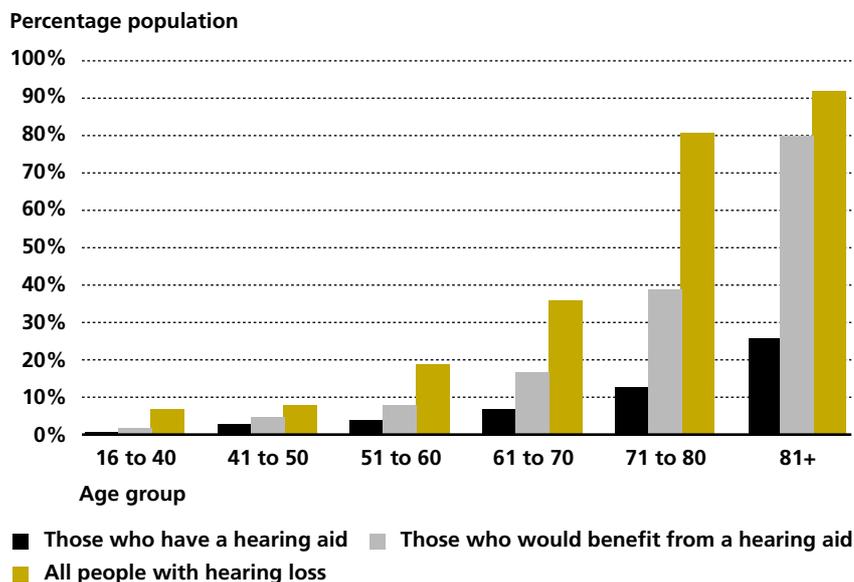
- Older people might not seek help in the first place (Ref. 43).
- People may be unaware of hearing loss and family members compensate imperceptibly (Ref. 44).
- Stigma is attached to hearing loss and wearing a hearing aid.
- People are inhibited by the inaccessibility of the health service in terms of geography and complexity (Ref. 45).
- GPs may not become aware of the problem (consultations are short and usually take place in quiet rooms) (Ref. 46).
- GPs may either not refer or may delay referral due to their awareness of long waiting lists (Ref. 47).
- GPs' involvement and interest in hearing loss varies (Ref. 48).
- Lack of a positive attitude by GPs to hearing loss in the case of older people (Ref. 49).

Source: Refs. 43-49.

EXHIBIT 44

Percentage of the population with hearing loss and the potential and actual use of hearing aids

Hearing loss is associated with advancing age.



Source: Medical Research Council
Institute of Hearing Research

128. Each year, approximately 150,000 aids are sold privately. This offers those users who can afford it the benefits of modern technology, and the option of an aid for each ear, at greater speed. The main disadvantage of private provision is that expensive mistakes can be made as privately purchased hearing aids range in price from £250 to £2,500. Hearing aid dispensers, some of which are located within NHS trusts, are required to be registered with the Hearing Aid Council and adhere to its professional code of practice. But fears persist that private dispensing may be pursued to the disadvantage of customers. An extensive grey area exists in which the distinction between pressure and persuading people to ‘exercise choice’ is fragile (Ref.50). There are concerns about the limited powers of the Hearing Aid Council to regulate against such problems.

Improving quality

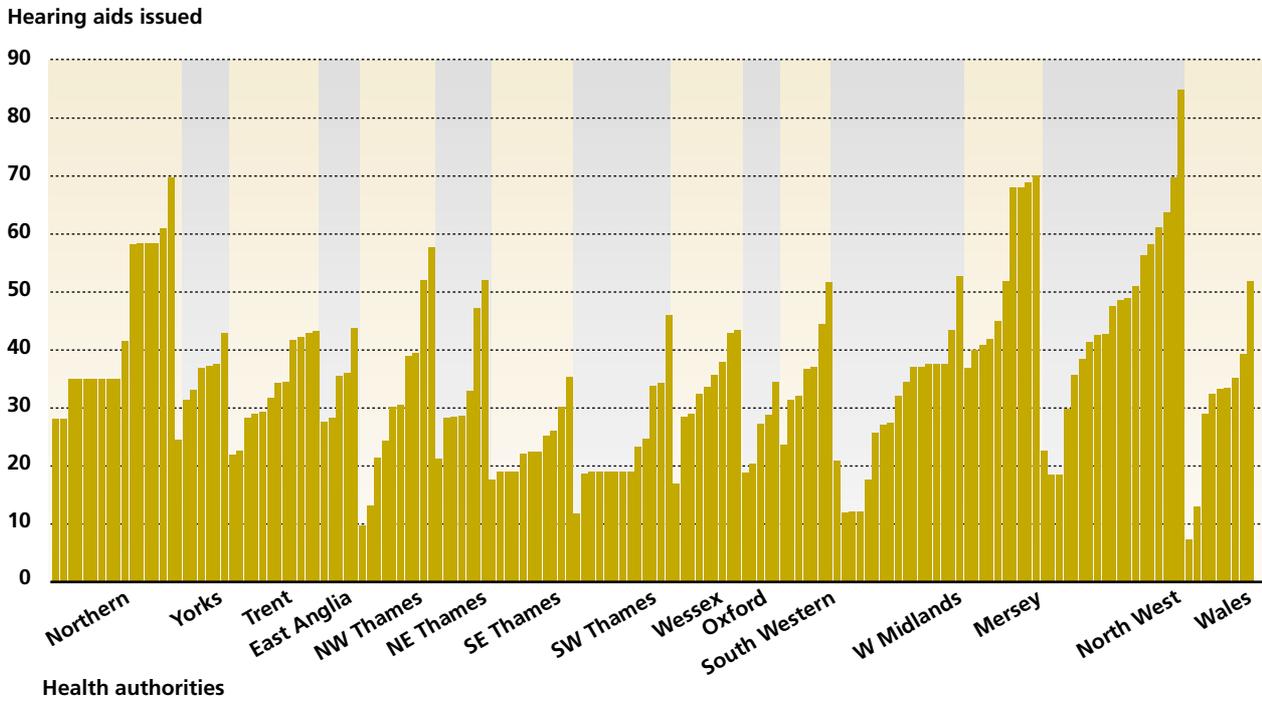
Equity

129. There is a twofold variation in the provision of hearing aids between former health authority regions, and an even greater intra-regional variation [EXHIBIT 45, overleaf]. Standardised audiology staffing levels vary widely between health authorities in a way that appears unrelated to need or explicit local priorities [EXHIBIT 46, overleaf] (Ref. 51). Budgets are usually set on a historic basis and allocated only in relation to the number of first-time fittings. This overlooks the fact that a high proportion of expenditure is on repairs, replacements and upgrades. So better hearing aids can be provided only at the expense of the number of people fitted.

EXHIBIT 45

Hearing aids issued per 1,000 of the population with moderate or worse hearing loss

There is a twofold inter-regional variation in the provision of aids, and an even greater intra-regional variation.



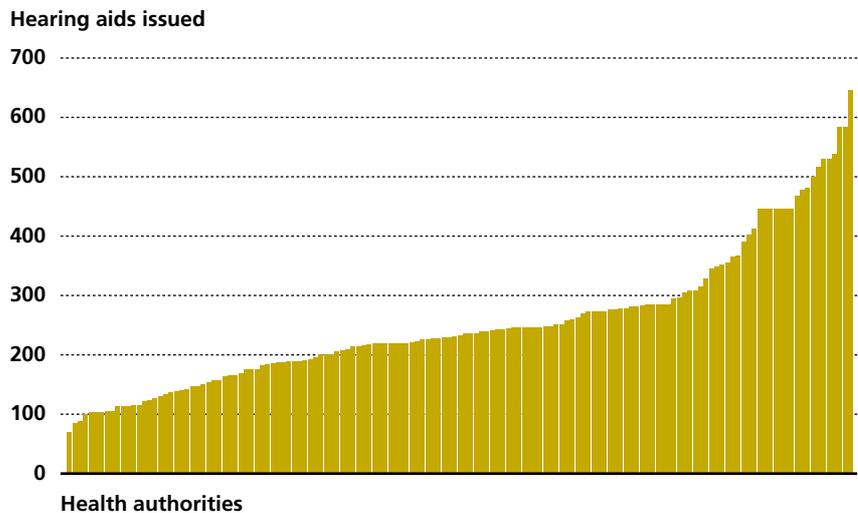
Note: Moderate hearing loss is defined as having difficulty in hearing at 35 decibels.

Source: Audit Commission analysis of data collected by the Medical Research Council Institute of Hearing Research, N = 116, survey data 1996/97

EXHIBIT 46

Hearing aids issued per staff member

There is a 50 per cent variation in the inter-quartile range of standardised audiology staffing levels.



Source: Audit Commission analysis of data collected by the Medical Research Council Institute of Hearing Research, N = 116, survey data 1996/97

In one-fifth of health authority areas, the average wait is longer than six months.

Waiting times

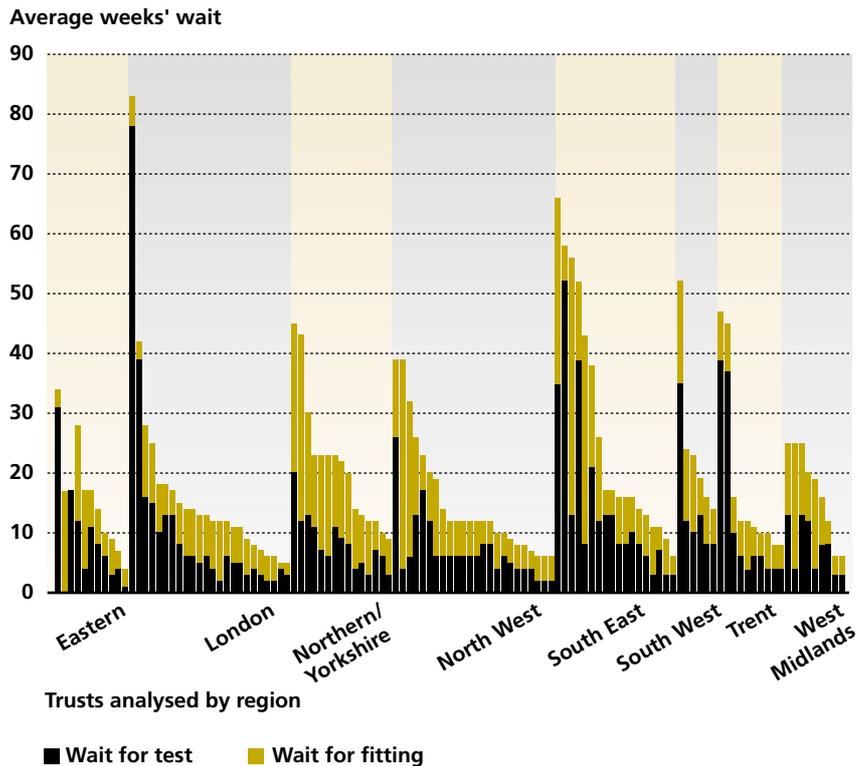
130. There is wide variation in waiting times in different parts of the country [EXHIBIT 47]. The average wait from appointment to fitting is 19 weeks, and in one-fifth of health authority areas, the average wait is longer than six months. The longest waiting times are likely to occur when GPs refer patients to a hospital consultant, who in turn refers the user to an audiology centre (Ref. 52).

131. In an attempt to reduce waiting times, a national protocol for direct referral from GPs to hearing aid centres has been introduced (Ref.53). However, it is essential that the capacity of the hearing aid clinics is adequate to manage an increased workload and range of tasks. Otherwise, there is a danger that waiting times will simply be transferred from one stage in the process to another.

EXHIBIT 47

Average waiting times from referral to fitting following direct GP access

There is wide variation in waiting times between trusts in the time taken from a person’s initial referral to the fitting of an aid.



Source: Audit Commission analysis of data collected by the Royal National Institute for Deaf People, N = 116

Efficacy

132. Reports suggest that a third of hearing aids are infrequently or never used because of the poor quality of aids and the advice given (Ref. 54). This is due to a combination of poor technology, rushed fittings, patchy fitting skills and inadequate guidance and support for hearing aid users. This represents a waste of money, as well as excluding deaf or hard-of-hearing people from society. This exclusion, through social isolation, can undermine people's independence and actually increase public sector costs in the long-term.

133. For the most part, NHS provision is met through a range of 23 non-programmable analogue models, but the four of the cheapest and most basic behind-the-ear models account for more than half the aids provided. These aids are manufactured against a NHS specification and are not commercially available. They offer limited user choice in terms of technical performance, design, and the choice of colours is limited to a few models. The performance specification is, for the most part, very dated.

134. Nowhere is the cost versus quality debate in the provision of equipment for older or disabled people better illustrated than by reference to hearing aids. Recent advances in hearing aid technology and treatment offer considerable quality improvements (Refs. 55, 56). However, NHS users are not usually offered the advanced sound processing capability that is available from the latest digital aids. These aids deliver superior performance, particularly in eliminating background noise (Ref. 57); and can be programmed to meet individuals' specific needs (Ref. 58). Clinical trials have found that users with digital aids increase their use of the aid (from an average of 6 hours per day to 11 hours per day); and speech recognition is improved by 20 to 25 per cent across a range of frequencies (Ref. 59).

135. To provide digital aids to all existing analogue users would cost in the region of an additional £25 million a year. This would bring the standard of hearing aids available to NHS users into line with those provided in other countries with similar healthcare systems, such as in the rest of Northern Europe and Australia.

Recent advances in hearing aid technology and treatment offer considerable quality improvements.

136. The Government has recently announced a study into the provision of digital hearing aids that will be undertaken at 20 leading NHS audiology centres. This step, together with the investigation into digital aids by the National Institute for Clinical Excellence, is welcome. It would be particularly valuable if these investigations were able to compare the opportunity cost of providing better hearing aids against the current cost to society of the isolation experienced by deaf or hard-of-hearing people. It would also be helpful if the pilot sites selected for the study published and disseminated their quality standards and methods of working. Emulation of their good practice by other health authorities and trusts would promote greater equality of services and provision across the NHS. Quality improvement programmes need to be devised and implemented to deliver improvements to achieve current upper-quartile performance levels.

137. Finally, the current division of services between the NHS and social services also affects the quality of service received by users. NHS trusts are responsible for providing hearing aids and support rehabilitation, while social services are responsible for providing assistive listening devices, such as telephone and doorbell aids. Problems arise because most people with hearing problems are referred down a ‘health’ route and NHS audiologists are often unaware of the opportunities afforded by assistive listening devices. Moreover, many social services authorities limit provision of such equipment to the profoundly deaf, when many more people could benefit.

138. This inter-agency split is damaging both to the clinical effectiveness and cost effectiveness of services for deaf or hard-of-hearing people (Ref. 60). Many of the problems they experience need to be tackled with assistive listening devices as well as the provision of a hearing aid. Integrating services and budgets in audiology services and social services is needed to permit a proper assessment of individual needs and to make the best use of the available resources.

Controlling costs

139. The extensive influence of NHS Supplies over the purchase of NHS hearing aids means that there is hardly any opportunity to identify savings within the existing range of provision. Its control of the current market is demonstrated by the general consistency in the average cost of hearing aids across England [EXHIBIT 48].

140. The possible introduction of digital aids offers potential economies by reducing the cost of replacements, because they can be programmed and adjusted, as users' needs change. Cost-efficiencies are also likely to accrue from purchase volume commitment, as a much smaller range of products could be used to meet the current spectrum of need. As probably the largest single purchaser of hearing aids in the world, NHS Supplies is in a strong position to work in partnership with suppliers to deliver significant but affordable quality improvements.

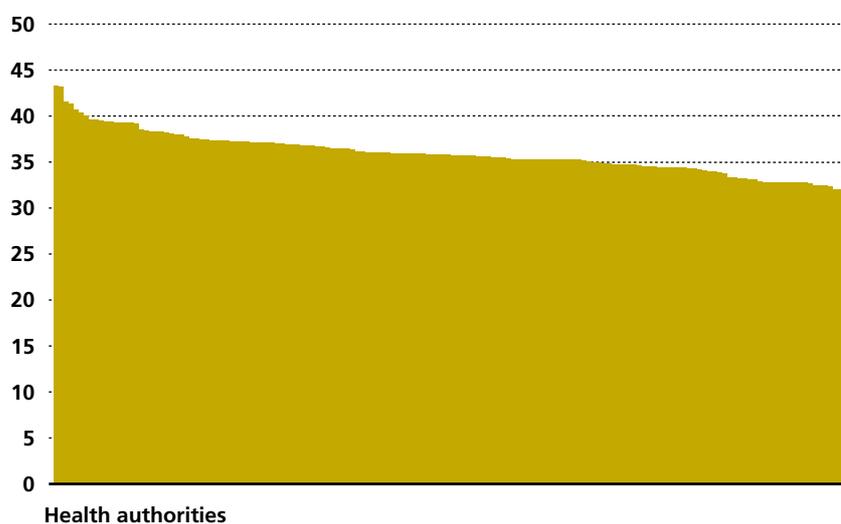
141. In common with other equipment services, the facilities available at many of the trusts visited appeared cramped and under-invested. One important saving opportunity would be to integrate local IT systems and main patient administration systems. The parallel systems run at some trusts visited resulted in considerable duplication of administrative effort in entering and retrieving patient data.

EXHIBIT 48

Average cost of hearing aids

There is general consistency in the average cost of hearing aids across England.

Average cost of hearing aids (£)



Source: Audit Commission analysis of data collected by the Medical Research Council Institute of Hearing Research, survey data 1996/97, N = 159

RECOMMENDATIONS



6 Audiology Services

Specific recommendations for audiology services

- 1** To reduce waiting times, health authorities should ensure that there are mechanisms in place to allow direct referral from GPs to hearing aid centres. They should also ensure that the capacity of the hearing aid clinics is adequate to manage an increased workload and range of tasks (paragraph 131).
- 2** The pilot sites selected for the ministerial study should publish and disseminate their quality standards and methods of working (paragraph 136).
- 3** The current investigations into the provision of improved hearing aids should attempt to compare the opportunity cost of providing better hearing aids against the current cost to society of the isolation experienced by deaf and hard-of-hearing people (paragraph 136).
- 4** Health authorities, in conjunction with local trusts, should review their current service standards for the delivery of audiology services and deliver quality improvements to achieve current upper-quartile performance levels (paragraph 136).
- 5** Health authorities and social services authorities should establish joint audiology services to combine the provision of hearing aids and rehabilitation services with environmental listening devices (paragraphs 137, 138).

7



The Next Steps

The importance of equipment services to the lives of older or disabled people, coupled with the wide variations in all aspects of provision, makes concerted action essential at national, regional and local level. The development of 'hub-and-spoke' arrangements, and other models of integrated provision, is the starting point for a better future for equipment services.

This review has described the unsatisfactory state of equipment services.

142. The three main objectives of government policy are to:

- eliminate unacceptable variations in performance and practice;
- increase the speed at which proven treatments are introduced; and
- eliminate inequalities in clinical practice and outcomes.

If judged by these criteria, equipment services for older or disabled people should feature high on the agenda as current service provision fails on all three counts.

143. This review has described the unsatisfactory state of equipment services. While there are some examples of integrated provision to be applauded, services for the most part are bedevilled by:

- lack of involvement of users at all levels of service planning and delivery;
- low priority afforded by senior managers to equipment services;
- under-investment by the public services and the supporting industry; and
- geographic variations in peoples' eligibility to receive services, in the range and quantities of treatment provided, the time spent waiting for its delivery, and in the number of staff trained and the intensity of the education and training that they receive.

144. The importance of equipment to the lives of many older or disabled people, coupled with the wide variations observed in all aspects of service provision, makes action essential. The Department of Health should make specific reference to the provision of equipment in future National Priorities Guidance. Specific reference should also be included in the National Service Framework for Older People (to be published in autumn 2000).

145. Improvements also need to be driven by action by others. The supply industry, NHS Supplies, professional groups and users' groups need to establish effective partnerships to develop guidelines and publicise exemplars of good practice.

146. Auditors, trusts, health authorities and social services authorities also have equally important roles to play. Local value-for-money reviews of the equipment services provided by trusts and social services throughout England and Wales are already being undertaken by the Commission's auditors. They will review the findings and recommendations of this report and tailor them to local circumstances.

147. These audits will provide much-needed management attention to raise the profile of equipment services. Given the shortcomings in many aspects of the management of equipment services and the associated risks identified in this report, all trusts and social services authorities should consider auditors' recommendations on their equipment services in the context of their overall responsibilities for clinical governance, risk management and best value.

148. In conjunction with these audits, trust boards and social services authorities should review the management of their equipment services. They need to ensure that the services are:

- directed by clinicians where appropriate;
- supported by managers of an adequate calibre who are directly accountable for service performance and risk management;
- adequately funded to provide for the integration of these services into an overall strategy for risk management, infection control, and adverse incident reporting as required by the Medical Devices Agency (Ref. 61); and
- adequately funded to meet legislation on lifting and handling, and CE marking.

149. Trust boards should incorporate the procurement of equipment into their overall supplies strategies, ensuring that the latest guidance from the Department of Health (Ref.62) is met. In developing local supply strategies, trusts should also consult with NHS Supplies to appraise themselves of any current national initiatives. Trusts and social services can achieve much by improving arrangements for product selection, process redesign, IT investment and consideration of whole-life product costing. These improvements will help to tackle the unacceptable delays that some users experience, and reduce the unnecessary costs incurred by some trusts and social services.

150. Reorganisation of existing arrangements is necessary to improve quality. The orthotics, prosthetics and wheelchair services need to be integrated into a network of ‘hub-and-spoke’ arrangements. This would enable users to benefit from a balance of local accessibility or more centralised expertise to suit their needs. One way forward would be for existing prosthetic centres to be established as specialist hubs, and for them to assume direct management responsibility for local services. Such an arrangement already works well in some parts of the UK and is supported by clinicians [BOX M].

151. Service reconfiguration is also needed in the provision of community equipment services. Here, the Government has signalled its desire through the 1999 Health Act for joint services that straddle the health and social care divides to become the norm. More work is needed, however, to resolve the obstacles presented by funding contributions and current VAT regulations.

152. Improvements in quality require adequate levels of investment in research and development. But in some areas of equipment provision, particularly orthotics, suppliers’ margins are too low to permit adequate investment. The Pharmaceutical Price Regulation Scheme has long recognised the importance of setting prices at a level adequate to permit R&D in the drugs industry, and the same principle should be applied to some sectors of equipment supply. NHS Supplies needs to establish a partnership with the supply industry to tackle this problem where necessary.

Improvements in quality require adequate levels of investment in research and development.

BOX M

Hub-and-spoke models of provision

The British Society of Rehabilitation Medicine has recommended the development of hub-and-spoke models for the provision of orthotic, prosthetic and wheelchair services. The model provides the opportunity to deliver high quality specialist services for people with complex or specialist needs at the hub, while providing accessible, responsive and quality assured local services at satellite clinics via the spokes.

Significant economies of scale can be delivered by this approach. There would be sufficient scale to:

- allow for the employment of a NHS orthotist at the hub to assure the quality of the work of privately employed orthotists working in satellite clinics;
- improve professional development and career opportunities for staff, enabling them to rotate and specialise;
- commission gait-and-motion analysis from specialist regional centres;
- work in partnership with suppliers to deliver cost and quality improvements; and

- undertake a full programme of clinical audit.

There are several examples of the development of this approach in the UK, most notably at Tayside University Hospitals NHS Trust (the Dundee Limb Fitting Centre). In Sheffield, trusts have collaborated on a geographic basis to provide a common strategy for commissioning and contracting services. The Harold Wood Disablement Services Centre in Havering also demonstrates the benefits of the model. The transfer to the service to the BHB Community Healthcare Trust in 1991 acted as the catalyst to several patient-led improvements in prosthetic, wheelchair and orthotic services. Achievements include:

- establishing multidisciplinary teams across orthotics, prosthetics and wheelchair/seating services;
- appointing additional consultants in rehabilitation;
- achieving shorter waiting times;
- providing of new physiotherapy, occupational therapy, nursing and counselling services;

- constructing a new purpose-built clinic and therapy rooms, and prosthetic workshops;
- accessible car parking;
- establishing effective partnerships with contractors using NHS Supplies' contracts;
- direct access to DSC professionals and counselling professionals for users who are anxious about their condition or equipment;
- delivering a continual programme of clinical research and training for junior doctors, therapists and nurses; and
- outreach services to other trusts.

All health authorities and trusts should consider collaborating to commission hub-and-spoke models to achieve these benefits.

Source: Audit Commission

RECOMMENDATIONS



7 The Next Steps

Recommendations for the Department of Health and the National Assembly for Wales

- 1 The Department of Health should make specific reference to the provision of equipment in the National Priorities Guidance. Specific reference should be included in the National Service Framework for Older People. The National Assembly should undertake a similar policy review (paragraphs 80, 144).
- 2 These policy reviews should be underpinned by using the National Patients Survey specifically to seek the views of equipment users and their carers (paragraph 78).
- 3 Examples of good practice and service standards should be prepared and disseminated by professional groups in concert with user groups as the basis for enhancing local services (paragraphs 80, 96, 145).
- 4 NHS Supplies' and the National Assembly should establish an effective partnership with the supply industry aimed at increasing the level of investment in research and development where needed (paragraph 152).

Recommendations for health authorities

- 5 Health authorities should supplement the National Patients Survey by undertaking their own surveys that seek – and act upon – the views of users and their carers. These should be reflected explicitly in service specifications in all equipment services (paragraphs 30, 77).
- 6 Health authorities, in conjunction with regional offices of the NHS Executive and the National Assembly, should review, in consultation with social services, the current provision of equipment services within their areas. Where necessary, they should reorganise and consolidate services to provide specialist multidisciplinary centres which integrate the specialist provision of orthotics, prosthetics and wheelchair services. These specialist centres should operate a 'hub-and-spoke' model of provision, taking responsibility for providing specialist support and professional leadership, including clinical audit, to satellite services. Existing tertiary prosthetics centres should assume responsibility for local orthotics and wheelchair services (paragraphs 17, 27, 150).
- 7 Health authorities should ensure that fast-track protocols are established to ensure that users with complex needs are referred to specialist centres (paragraph 52).

RECOMMENDATIONS



7 The Next Steps

- 8 Health and social services authorities should ensure that the totality of users' needs are met by ensuring that there are referral mechanisms in place to provide comprehensive packages of care (paragraphs 83, 97, 100, 101).

Recommendations for NHS trusts and social services

- 9 Trust boards / social services committees should review the management of their equipment services, ensure that they are clinically led, and that there are managers of adequate calibre directly accountable for service performance (paragraph 148).
- 10 Trust boards / social services committees should ensure that equipment services are included within integrated strategies for risk management, infection control, and adverse incident reporting (paragraph 148).
- 11 Trust boards / social services committees should ensure that equipment services are adequately funded to meet legislation on lifting and handling, and CE marking (paragraph 148).
- 12 Trust boards should ensure that the supplies procurement aspects of their equipment services are incorporated within a trust's overall supply strategy, ensuring that the strategy meets the requirements of HSC 99/143 (paragraph 149).
- 13 Service managers should ensure that product ranges are standardised (as far as appropriate, given the need to be consistent with user choice) to permit the aggregation of demand for product ranges into properly negotiated contracts (paragraphs 33, 84, 111).
- 14 Service managers should ensure that, within the framework of the overall IT strategy, there are adequate information systems to support all aspects of the equipment services. Such systems should record all aspects of patient treatment, equipment issues, stores management, maintenance requirements, tracking and recycling (paragraphs 88, 89, 90, 116).
- 15 Service managers should review and eliminate the potential conflicts of interest that arise when commercial suppliers discharge the services of both clinician and salesman (paragraphs 11, 85).
- 16 Managers should ensure that in-house services offer best value by market testing or benchmarking the services (paragraphs 36, 40).
- 17 Trusts need to organise user involvement to ensure feedback on the quality of equipment to suppliers and to the MDA, if appropriate (paragraph 54).

Appendix 1

External advisory group

| | |
|---------------------------|---|
| Patsy Aldersea | Wheelchair Services Manager, Merton & Sutton Community NHS Trust |
| Paul Bearman | District Audit |
| Peter Bowker | Professor of Orthotics, Salford University |
| Charles Coombs | Welsh Office |
| Gary Evans | emPOWER |
| Mike Ferguson | NHS Supplies |
| James Ford | SCOPE |
| Sam Gallop | Chair, emPOWER |
| Joe Hennessey | emPOWER |
| Ray Hodgkinson | Chief Executive, British Healthcare Trades Association |
| Rosalynde Lowe | Chief Executive, Hounslow and Spelthorne Community and Mental Health NHS Trust and Audit Commissioner |
| Michael Mandelstam | Independent consultant |
| John Reed | Supplies and Equipment Manager, Cornwall Healthcare NHS Trust |
| Sheelagh Richards | Department of Health |
| Alan Robson | NHS Supplies |
| James Robertson | National Audit Office |
| David Sinclair | Secretary, emPOWER |
| Kevin Shinkwin | Parliamentary Affairs Officer, The Royal National Institute for Deaf People |
| Ann Stead | Director, Disability Services, Nuffield Orthopaedic Centre NHS Trust |
| John Warrington | NHS Supplies |
| Maggie Winchcombe | Disabled Living Centres Council |

Study methodology

The work was undertaken principally by conducting observational reviews and audits at 26 organisations, by seeking expert opinion, and by analysing data from secondary sources. A survey of orthotics managers in acute trusts was undertaken and 150 responses were received (a 75 per cent response rate). A survey of community loan store managers was undertaken through the National Association of Equipment Providers and 51 responses were received (a 65 per cent response rate). Finally, a survey of the parents of children who used lower limb prostheses was undertaken in conjunction with STEPS and 49 responses were received (an 89 per cent response rate).

Organisations visited**Research sites**

Cornwall Healthcare
Countess of Chester Hospital
Doncaster Healthcare
Essex Rivers Healthcare
Fosse Health
Frenchay Healthcare
Haringey Health Care
Havering Hospitals
Huddersfield Royal Infirmary
Hillingdon LBC
Robert Jones and Agnes Hunt Orthopaedic and District Hospital
Leicester Royal Infirmary
Local Health Partnerships
Merton & Sutton Community
Mid Cheshire Hospitals
Northern General Hospital
Northampton Community Healthcare
Nuffield Orthopaedic Centre
North Staffordshire Hospitals
Peterborough Hospitals
Plymouth Community Services
Powys Health Care
Royal Lancaster Infirmary
St Helens and Knowsley Hospitals
Swindon and Marlborough
Wrexham Maelor Hospital

Discussions were held with staff at:

Blachford

Disabled Living Centres Council

Centre for Rehabilitation Engineering King's College London

emPOWER

Gilbert and Mellish

HM Customs and Excise

Jane, Saunders & Manning

J.C. Peacock

King's Fund

Medical Devices Agency

National Association for Children with Lower Limb Abnormalities
(STEPS)

National Association of Loan Store Managers

NHS Executive

NHS Supplies

RSL Steeper

The Royal National Institute for Deaf People

SCA

SCOPE

Tayside University Hospitals NHS Trust

Welsh Office

York Health Economics Consortium, University of York

Appendix 2

Value added tax

Joint loan stores and VAT

At some joint community loan stores visited, there was confusion about the payment and recovery of Value Added Tax (VAT). The source of the problem is that the different funding arrangements for local government and the NHS lead to different VAT regimes. The effect on joint loan stores (that is, loan stores run by either social services or an NHS organisation but providing equipment to both) is that equipment purchased as 'aids to daily living' by social services is eligible for recovery of VAT, whereas equipment purchased by NHS bodies is ineligible.

The basis for this is that social services, as part of local government, are financed in part through local taxation. As local government generally undertakes activities that are not considered to be business, it is not usually possible to recover VAT on such activities. To alleviate the burden that this would place on taxpayers, certain local government bodies can recover VAT on their non-business activities (including on the home loan equipment provided by social services).

NHS bodies, as part of central government, are funded through the Treasury allocation to the NHS. As NHS bodies are funded on the basis that they will pay tax, their allocations take account of, and offset, the effect of VAT (which *cannot* be reclaimed on equipment purchased through loan stores).

Reclaiming VAT on stock

Only one participant in a joint local authority/health stores arrangement accounts for an item of stock within its books. It is this participant (social services or NHS) which incurs any VAT charged when goods are taken into stock. When stock is ordered, arrangements should be made to ensure that the purchase invoice provided by the supplier to the operator is made out to the participant with accounting responsibility for the item in question. However, Customs & Excise is willing to grant approval for an alternative to cover the few occasions where this may cause difficulty – for example, inability to bulk purchase.

VAT reclaims on stock items are available only to a local authority recipient and only when it has accounting responsibility (that is, it cannot be reclaimed by social services on items that are NHS items).

Where the participant (social services or NHS) with responsibility for accounting for an item of stock within its books 'lends' or hires it to the other (for example, social services lends to NHS to cover temporary shortages), VAT is not to be levied on any charge made. This is because it is not seen as a business activity for VAT purposes. When items are hired from outside contractors (for example, renting pressure-relieving mattresses) VAT reclaims are available only to a local authority recipient and only when it has accounting responsibility.

Reclaiming costs for running the service

The organisation which operates and maintains a joint stores depot is to charge VAT on the income received (that is, contributions from the other party) as payment for the services that it supplies such as salary costs and fuel and power associated with running the joint stores depot. This charge is often made as a supplement to charge for stock or as a periodic charge. A local authority recipient of these services (for example, social services) is able to reclaim this VAT under their special rules (see above), while an NHS body recipient may currently claim it as a refund under the contracted-out service regime. This would apply also where a charity or a private company provides the service.

A process of apportionment of such costs is agreed with the local office of Customs and Excise and a recovery of VAT can then be made by social services; any reimbursement passed on to the NHS must be by invoice/remittance advice so that a clear audit trail is established.

VAT avoidance

Attempts to circumvent the current taxation arrangements – for example, by transferring health funds to social services merely in order to reclaim VAT – would be regarded as tax avoidance as laid down in EL (97) 70; ('arrangements to avoid the payment of tax properly due'). In determining the nature of the supply, and whether avoidance has occurred, Customs & Excise will look at two key issues:

- who the supply of the good is for (medical and social needs are different and powers come under different legislation); and
- when the good was supplied (joint stores cannot purchase goods for the NHS and pass them to social services, and thus reclaim VAT).

What trusts/social services authorities must do

- Ensure all items purchased can be clearly identified as being social services – or NHS-funded.
- Ensure that there are no funding streams for purchasing equipment that, by attempting to reclaim VAT on medical (NHS) equipment, would be classed as tax avoidance.
- Ensure that any process of recovering VAT on the service element of the loan store has been agreed with the local office of Customs & Excise.

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More than 4 million disabled people use equipment services. These services are the gateway to their independence, and can make or break the quality of their lives and the lives of 1.7 million informal carers. The right equipment can make the difference between an enriched, independent life or a miserable, isolated existence.

The current standard of service is unacceptable in many parts of the country. After enduring long waiting times, many users receive equipment and services of dubious quality. Local eligibility criteria contain demand within available budgets. Some people can buy the equipment that they need privately, but older or disabled people are on average the poorest members of society, and many have to rely on charities or go without.

Equipment services are also characterised by a lack of senior management attention and clinical leadership. The current organisation of services is a recipe for further inequality and inefficiency.

And pressures are building as the population ages. Disability equipment services are pivotal to the success of many current initiatives to promote independent living in the community, so action is essential. Improvements in these services require leadership at a national level to reorganise the current fragmented arrangements and to deliver more integrated services. At a local level, senior managers need to prioritise their reviews of equipment provision to deliver modern, effective services. The development of 'hub-and-spoke' arrangements and other models of integrated provision is the starting point for better equipment services.

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