How can dermatology services meet current and future patient needs while ensuring that quality of care is not compromised and that access is equitable across the UK?

Source report 7 March 2014

The following source report provides full details of research into this question carried out by the British Association of Dermatologists (BAD) and The King’s Fund in 2013.

It should be read alongside the summary report, which outlines the high-level findings and enabling strategies.

Although much of the report relates to England, its observations and conclusions are also relevant to the devolved nations.

Structure

1 Outline of the research undertaken
2 Demand for dermatology services
3 Overview of the current dermatology workforce numbers
4 Issues around current service provision
5 Commissioning policies affecting dermatology services
6 Options for the future
1 Outline of the research undertaken

This report is based on the following sources of information:

- A summary of the relevant literature and documents made available from the British Association of Dermatologists (BAD). It should be noted that many of the studies had methodological weaknesses, including: lack of a control group; lack of blinding of treatment allocation; small numbers; limited patient groups; limited outcome measures; and short follow-up periods. In general, the literature on the organisation and management of specific clinical services tends to be sparse and is often dominated by case studies, which make it difficult to draw generalised findings.

- The main findings from a survey carried out in July 2013 by BAD and The King’s Fund. The survey was sent to all members of the Association, as well as a GP learning set and community service learning set. The survey asked respondents to describe what works well, what the challenges in dermatology service provision are, and how can dermatology adapt and change to address these challenges. The survey also asked respondents to detail any examples of innovations in dermatology service provision. A total of 60 survey responses were received, 94% of them from senior dermatology consultants. Many of the respondents took considerable time to complete the survey and answered follow-up clarification questions, for which we are extremely grateful (all quotes have been anonymised).

- The main findings of 20 stakeholder interviews undertaken from July to September 2013, including: consultants at all levels; specialty doctors; specialist nurses; GPs with a Special Interest (GPwSIs); GPs; patients and patient organisations; the independent sector; and commissioners.

- Visits to specialist dermatology services.

- Three stakeholder workshops (on 17 October, 21 November and 3 December 2013). The workshops brought together more than 80 stakeholders to discuss emerging issues, areas of consensus and divergence, and options for the future.

We would like to thank all the stakeholders we talked to, who were professional, helpful, and showed a willingness to share their experiences and ideas for the future.

This source report outlines the detail of the research carried out. It starts by providing an overview of demand for dermatology services and then goes on to outline emerging themes of dermatology provision across primary and specialist care, and potential options for the future.
2 Demand for dermatology services

Summary
- There is strong demand for dermatology services from primary care, with many patients self-treating or consulting their GP.
- The majority of skin consultations with GPs concern the 10 most common skin conditions.
- Dermatology has a comparatively high number of referrals to specialist care, particularly for diagnosis.
- Although mortality rates from skin conditions are comparatively low, skin cancer rates are rising, and half of all specialist activity now relates to the diagnosis and management of skin lesions.
- Skin diseases can occur at all ages, but some skin conditions are more common in certain age groups, such as: high rates of eczema in children; high rates of acne in teenagers; and increasing rates of skin cancer in adults.
- An increasing elderly population is likely to increase demand for dermatology services.
- There is likely to be a significant proportion of the population who will demand to see a specialist for an accurate diagnosis and treatment plan.

Each year, 54% of the population (it is unclear from the source reference if this is UK or England only) are affected by skin disease, although most patients tend to (69%) self-care.\(^1,2\) It has been suggested that at any one time, 23%–33% of those affected by skin disease would benefit from medical care.\(^3,4\)
Skin disease is a common and distressing condition, costing the NHS in England and Wales around £1,820 million a year.\(^6\) This is relatively low compared to many other chronic conditions – for example, coronary heart disease (CHD) costs the NHS approximately £3.2 billion a year,\(^7\) whereas musculoskeletal conditions are thought to cost more than £4 billion a year (£560 million each year is spent on rheumatoid arthritis alone).\(^8\) Health spending on neurological conditions is also around £2.9 billion (and social care spending around £2.4 billion), and has benefited from a 38% increase in funding from 2006 to 2010.\(^9\)

Skin conditions are among the most common diseases encountered by health professionals. There are 13 million primary care consultations for skin conditions each year in England and Wales.\(^10\) The consultation rate is two for each episode, and the average GP has 630 consultations per year for skin conditions, which is likely to be an underestimate due to coding issues.\(^11\) While there are well over 1,000 dermatological diseases, just 10 of them account for 80% of GP consultations for skin conditions. The most common skin conditions are outlined in the following box.\(^12\)

Of the 13 million primary care dermatology GP consultations each year, in England and Wales\(^13\) around 5.5% (716,830)\(^14\) are referred for specialist advice (a small proportion of this specialist activity – around 8% – is thought to be undertaken in the private sector).\(^15\) This is a comparatively high referral rate (in comparison, there were 470,284 referrals to cardiology from primary to secondary care in 2012 in England).\(^16\) In the 2012/13 financial year, there were 93.5 million outpatient appointments in England\(^17\) (assuming that all new referrals resulted in an outpatient appointment). New dermatology outpatient appointments represent 0.77% of total outpatient appointments, in comparison to cardiology, which accounts for 0.5% of the total.

In addition, there are rising referral rates to dermatology: over the five years from 2007/8, there was a 15.5% increase in GP referrals.\(^18\) Hospital Episode Statistics (HES) data also showed an increase of 117% in the number of recorded finished consultant episodes (FCEs) in dermatology between 2004 and 2009 in England.\(^19\)

The ageing population is expected to put further pressure on the specialty, as some common conditions, particularly skin cancer, occur much more frequently in the elderly, and are often more difficult to treat in the presence of co-morbidities (which are associated with age). The BADs submission to the parliamentary enquiry into long-term conditions outlines the increasing demands on dermatology services related to an aging population with high prevalence of multiple co-morbidities.\(^20\)
According to the Office for National Statistics, the population in all age bands from 65 upwards is predicted to grow over the next 20 years.\textsuperscript{21} It is also likely that demand for dermatology services will increase in line with people’s rising expectations about skin, hair, and nail appearance (this was highlighted repeatedly in workshops as “the Embarrassing Bodies effect”).\textsuperscript{22} There is also a proportion of the population that will demand to see a specialist to ensure that they have an accurate diagnosis and treatment plan. This view is supported by a recent survey of more than 1,500 Psoriasis Association members, which found that while 70\% of referrals to specialist care were made on the initiative of the GP, 30\% of respondents had requested referral through their GP.\textsuperscript{23} Patients requesting referral to a specialist may also reflect a lack of confidence in primary care capacity, due to the lack of GP training and education in dermatology (this is discussed later in the report). This is supported by the finding that between 31\% and 59\% of new dermatology referrals are for diagnosis.\textsuperscript{24}

In terms of the breakdown of conditions that specialists most commonly see, data from four dermatology departments in England showed that the four most common presentations are for skin lesions (35\%–45\%), eczema, psoriasis, and acne.\textsuperscript{25}

Although the most common skin conditions are not life-threatening, (there were nearly 4,000 deaths due to skin disease in 2005, of which 1,817 were due to malignant melanoma;\textsuperscript{26} in comparison, more than 65,000 people died from coronary heart disease in England in 2010),\textsuperscript{27} unless they are diagnosed accurately and treated appropriately, patients can suffer harm and longer-term health and psychological problems. In addition, approximately 4 million working days are lost each year due to skin conditions.\textsuperscript{28}

<table>
<thead>
<tr>
<th>Box 1</th>
<th>The 10 most common skin problems</th>
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<tbody>
<tr>
<td></td>
<td><strong>Skin lesions</strong>: 40%–50% of specialist activity now relates to skin lesions; this is particularly the case in geographical areas with higher rates of skin cancer, such as the south coast.\textsuperscript{29} Non-melanoma skin cancer in the UK is estimated to affect about 265 people in every 100,000, increasing to a rate of 1,365 per 100,000 among those over 85.\textsuperscript{30} Melanoma incidence is 15.9 per 100,000 (UK data for 2005).\textsuperscript{31} Skin cancer is the commonest cancer and the second commonest cancer causing death in young adults. It should be noted that only first tumours are recorded on cancer registries.\textsuperscript{32} Basal cell carcinoma (BCC) numbers equal all other skin malignancies combined, and increased by 133% between 1980 and 2000.\textsuperscript{33} In one study in East Anglia, reported melanoma incidence increased by 48% over 13 years (from 9.39 to 13.91 cases per...</td>
</tr>
</tbody>
</table>
100,000 between 1991 and 2004). This increase was almost entirely due to increases in stage 1 melanomas.\textsuperscript{34}

- **Eczema**: Between 10\% and 12\% of patients seen in specialist dermatology departments have eczema.\textsuperscript{35} Prevalence reduces with age: in children under one, atopic eczema is very common, (2,000 per 10,000 population in England and Wales) and there is a lifetime prevalence of around 20\% in 3–11-year-olds.\textsuperscript{36}

- **Psoriasis**: Probably affects about 1.5\% of the population, the condition represents between 1.7\% and 5\% of all GP consultations for skin disease. By contrast, 5\%–11\% of specialist caseload relates to the management of patients with psoriasis.\textsuperscript{37} One study found that 60\% of patients with psoriasis had been referred for specialist assessment at some point.\textsuperscript{38} These data are based on adult populations, but approaches to care in children and young adults are similar.

- **Acne**: Common in 14–16-year-olds, with prevalence in this age group of around 50\% (11\% with moderate to severe acne); around 4\%–5\% of 15–24-year-olds consult their GP about acne each year.\textsuperscript{39}

- **Wounds, including leg ulcers**: UK incidence of leg ulcers is around 1.5–3 per 1,000; in up to 60\% of cases, leg ulcers are secondary to venous disease (arterial insufficiency, diabetes, rheumatoid arthritis). More common in the elderly (20 per 1,000 in the 80-plus age group).\textsuperscript{40}

- **Contact dermatitis**: Often work-related and diagnosed and managed with self-care or in primary care. There may also be increasing numbers of people affected by contact dermatitis from (higher) levels of methylisothiazolinone (MI) found in products such as baby wipes and cosmetics.\textsuperscript{41}

- **Infectious skin disorders** (excluding viral warts and molluscum contagiosum): Most are diagnosed and treated in primary care; skin infections include: cellulitis; abscess; dermatophytosis; impetigo; herpes zoster; carbuncle; herpes simplex; scabies; and lymphadenitis.

- **Viral warts and molluscum contagiosum**: There has been an increase in self-treatments for viral warts, which has resulted in a decline in patients visiting their GP with this condition.\textsuperscript{42} 90\% of molluscum contagiosum cases occur in children under 15; an average GP practice of 10,000 will see approximately 24 new cases a year.\textsuperscript{43}
3 **Overview of the current dermatology workforce**

This section explores the overall specialist and community dermatology workforce (particularly issues such as recent workforce trends and geographical differences). The following diagram compares overall patient demand and workforce supply across community and specialist care.

![Diagram showing patient demand and workforce supply](image)

**Figure 2: Patient demand for dermatology services and workforce supply across community and specialist care**

*Source data from Schofield J, Grindlay D, Williams H, 2009*

Most multidisciplinary specialist dermatology teams are based in the acute trust and may comprise consultant dermatologists, specialty doctors, GPs with a Special Interest (GPwSI), specialist nurses, and health care assistants (HCAs). There is variation between areas in the breakdown of the team; for example, some use a high proportion of GPwSI, other use more specialist nurses. Some examples are given below.

*At present we have 6 consultants (5.8 WTE [whole time equivalent]), 2 rotating SpRs [Specialist Registrars], 2 nursing sisters, 2 CNSs [clinical nurse specialists] (1 WTE), 5 band 5 nurses and 4 HCAs. We cover a population of 550,000. Consultant dermatologist*

*For a population of 500,000 we have 4.6 WTE consultants, 6 GPwSIs and a specialist nurse. Consultant dermatologist*
We have 7 dermatology consultants and 5 specialist nurses for a population of 500,000. Consultant dermatologist

Across different sections of the workforce that provide services to people with skin conditions, there are common issues, including: a lack of formal training and education in dermatology; regional variations in workforce; an increasing part-time immobile workforce; and poor succession planning. These and other issues are outlined below.

**Dermatologists**

<table>
<thead>
<tr>
<th>Summary</th>
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<tbody>
<tr>
<td>- Based on recommended numbers of dermatologists from the Royal College of Physicians (RCP), no region has enough dermatologist consultants, and the South East Coast, North East, and East Midlands have the lowest coverage of consultants.</td>
</tr>
<tr>
<td>- The consultant workforce is increasingly becoming more feminised and part-time. Linked to this, there is a lack of mobility in the workforce.</td>
</tr>
<tr>
<td>- There are increasing numbers of locums; market forces are encouraging doctors with Certificates of Completion of Training (CCT) to become locums, and encouraging permanent consultants to take early retirement and become locum consultants.</td>
</tr>
<tr>
<td>- Training numbers have been affected by the Care Closer to Home agenda.</td>
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</tbody>
</table>

If estimates from the Royal College of Physicians (RCP) are used, then it would suggest that there are not enough consultant dermatologists nationally, and there are particular regions of England where numbers are significantly below recommended levels. The numbers of consultants and recent trends in numbers are outlined below.

The General Medical Council (GMC) has 936 doctors on the Specialist Register under ‘Dermatology’ or ‘Dermatology and Venereology’. There are a total of 77,098 doctors on the GMC Specialist Register, and 936 as a percentage of the entire Specialist Register is 1.21%.\(^{45}\)

The dermatologist consultant workforce expanded by 14% between 2005 and 2010, based on the NHS Information Centre census. The supply of middle grade medical staff, together with trainees, has also increased during this time. The supply of dermatology consultants from 2010 to 2020 is forecast to increase to 482.1 full-time equivalent (FTE) in 2018 (689 headcount), an average increase of 2% annually.\(^{46}\)
Comparison with other specialties

In comparison, the obstetrics and gynaecology consultant workforce expanded by 22% from 2005 to 2009, based on the Information Centre census. The supply of consultants in this specialty is forecast to increase from 2010 to 2020 by 4% annually.47

The consultant rheumatologist workforce expanded by 0.5% from 2005 to 2010. The supply of consultants in this specialty is forecast to increase from 2010 to 2020 by 4.4% annually.48

It is increasingly difficult to ensure accuracy in workforce data as it is becoming more difficult to track posts – some doctors are coming into dermatology via Article 141 and others are being employed as locums without a Certificate of Completion of Specialist Training.49 However, in one estimate in 2012, the BAD found that there were 813 dermatology specialists in the UK (consultants, trainees, associates and associate trainees) and a total of 729 consultant posts, 75 of which were vacant and 98 were occupied by locums.50

The Centre for Workforce Intelligence (CfWI) data for 2010 were mapped against populations for each region to determine the level of consultant dermatologist cover per 100,000 population. The table below illustrates the differences in consultant dermatologists and other grade clinicians between regions. The South East Coast (0.64 consultants per 100,000), North East (0.69 consultants per 100,000), and East Midlands (0.69 consultants per 100,000) have the lowest coverage of consultants, whereas London has significantly higher coverage (1.15 consultants per 100,000). When taking into account other staff grades, the South East Coast region still has significantly fewer specialist dermatologists (0.84 specialist per 100,000), as does the East Midlands region (1.00 specialists per 100,000). The North East and London have a higher level of non-consultant grades.

The RCP recommends one full-time equivalent consultant dermatologist per 62,500 population.51 This scales up to 1.6 consultants for 100,000 – even London, with the highest number of consultants (1.15 per 100,000 population), is still below this figure.

2010 - Specialist dermatology clinicians per 100,000 population

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1 The conventional route towards attaining a Certificate of Completion of Training (CCT) is to complete training approved by the GMC. However, specialist registrars who have not followed an approved training programme, but think that they have gained the same level of knowledge, skills and higher level competencies as the CCT, can apply to the GMC via Article 14 or Article 11. A CCT can only be awarded to a doctor who has been allocated a National Training Number (NTN) by competitive appointment to a training programme designed to lead to the award of a CCT and who has successfully completed that programme. The NTN is unique to the trainee for the period the trainee holds the number in that specialty or specialty group.
The table below gives the breakdown of the number of consultants registered with the GMC by country in the UK (these are doctors on the Specialist Register under ‘Dermatology’ or ‘Dermatology and Venereology’, so will be higher as it is not just dermatologists). All regions had 1.4 doctors per 100,000, with the exception of Scotland, which had a higher rate of 1.6 per 100,000.

<table>
<thead>
<tr>
<th>SHA</th>
<th>Junior doctors</th>
<th>Staff grade</th>
<th>Specialty doctor</th>
<th>Associate specialist</th>
<th>Consultant</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>North East</td>
<td>0.50</td>
<td>0.04</td>
<td>0.04</td>
<td>0.23</td>
<td>0.69</td>
<td>1.50</td>
</tr>
<tr>
<td>North West</td>
<td>0.39</td>
<td>0.03</td>
<td>0.07</td>
<td>0.09</td>
<td>0.85</td>
<td>1.43</td>
</tr>
<tr>
<td>Yorkshire &amp; The Humber</td>
<td>0.32</td>
<td>0.00</td>
<td>0.09</td>
<td>0.08</td>
<td>0.74</td>
<td>1.23</td>
</tr>
<tr>
<td>East Midlands</td>
<td>0.20</td>
<td>0.00</td>
<td>0.04</td>
<td>0.07</td>
<td>0.69</td>
<td>1.00</td>
</tr>
<tr>
<td>West Midlands</td>
<td>0.31</td>
<td>0.00</td>
<td>0.02</td>
<td>0.11</td>
<td>0.90</td>
<td>1.34</td>
</tr>
<tr>
<td>East of England</td>
<td>0.24</td>
<td>0.00</td>
<td>0.07</td>
<td>0.12</td>
<td>0.77</td>
<td>1.20</td>
</tr>
<tr>
<td>London</td>
<td>0.81</td>
<td>0.03</td>
<td>0.01</td>
<td>0.10</td>
<td>1.15</td>
<td>2.10</td>
</tr>
<tr>
<td>South East Coast</td>
<td>0.05</td>
<td>0.00</td>
<td>0.05</td>
<td>0.14</td>
<td>0.64</td>
<td>0.87</td>
</tr>
<tr>
<td>South Central</td>
<td>0.31</td>
<td>0.00</td>
<td>0.12</td>
<td>0.10</td>
<td>0.73</td>
<td>1.26</td>
</tr>
<tr>
<td>South West</td>
<td>0.19</td>
<td>0.02</td>
<td>0.09</td>
<td>0.13</td>
<td>0.80</td>
<td>1.23</td>
</tr>
</tbody>
</table>

Table 1: Source: Centre for Workforce Intelligence / The King’s Fund analysis team, data from 2010

In 2010, the CfWI recommended an increase of between five and seven posts nationally, with the specific geographical allocation of these posts being dependent on training capacity, funding and distribution of the existing workforce. Although eight trusts with adequate training capacity made bids for posts, the required funding was only available for four. In addition, two deaneries reduced their number of dermatology training places by one per deanery, resulting in a net increase of only two posts. Stakeholders raised concerns that this approach (based on the ability of a location to provide training) does not support geographical differences in consultant cover, as trainees tend to stay where they train.

Table 2: Source – GMC, 6 August 2013

*Unclear from the data source what ‘non-UK’ comprises
Based on data from the NHS Information Centre, the FTE consultant workforce has expanded by 20% between 2005 and 2010, with the majority of the growth occurring from 2007. If demand is estimated by taking consultant supply in 2010 and increasing it at the rate of population growth of the 20-plus age group, it will reach about 500 FTE consultants in 2020, and constantly remain below the level of supply predicted for the workforce. The supply over the next 10 years is forecast to increase to about 660 FTE consultants in 2020 (760 headcount), an average increase of 3.4% annually.55

The CfWI forecast 362 fewer FTE consultants than the BAD (2010) recommended numbers by 2020. However, the evidence available does not take account of changes to future service delivery models, the impact of productivity and of new ways of working, which are likely to impact on the future consultant workforce.56

**Consultant locums (the incentive for newly qualified CCT staff to take locum posts and early retirement)**

The recent BAD UK workforce survey found that increasing numbers of locums were being used to fill vacancies. From 2012 to 2013, this seems to have increased by 26.8% (although there may be data inaccuracies as it is not clear if data refer to numbers in post, or WTE).57

North London and East of England appear to have the highest number of locums, whereas Northern Ireland, Wales and Scotland, and the East Midlands, have the lowest number. There is concern that some of these locum consultants may not have completed their CCT and are also not on the GMC register.

<table>
<thead>
<tr>
<th>UK workforce</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substantive consultants</td>
<td>604 (435.44)</td>
<td>684 (470.94)</td>
</tr>
<tr>
<td>Vacancies</td>
<td>74.25</td>
<td>93.45</td>
</tr>
<tr>
<td>Locums</td>
<td>82</td>
<td>104</td>
</tr>
</tbody>
</table>

*Table 3*

*Source: BAD*58
Consultant locums in post 2013

<table>
<thead>
<tr>
<th>Total</th>
<th>Longer than 6 months</th>
<th>CCT YES</th>
<th>CCT NO</th>
<th>Name not found on the GMC register</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>57</td>
<td>18</td>
<td>31</td>
<td>16</td>
</tr>
</tbody>
</table>

Table 4

Source: BAD

The BAD reported in 2009 that 29 locum dermatologists (many of whom are not accredited in dermatology and would not be appointed to a substantive post) remained in post in several areas, many for longer than the one year maximum stipulated by the Department of Health guidance (2010). This has been a growing issue, and several dermatologist consultants suggested to The King’s Fund that basic market forces of supply and demand have resulted in newly qualified specialists with CCTs choosing to become locums in areas with high consultant vacancies as a lucrative career option.

Also of concern is that some consultants may be retiring early to take locum posts. Although the age distribution of consultants shows a plentiful supply of staff aged under 45, the RCP reports that the average retirement age of UK dermatology consultants is 58, which is relatively low in comparison with other physician specialties. The RCP Census data for 2009 and the BAD consultant data from their membership database show similarly shaped age profiles, with a peak in the 40–44 age group. The BAD reports that there is evidence that early retirement is becoming increasingly common, which may be driven by pension issues, and results in some consultants then returning to fulfil locum posts (sometimes earning less than when they were employed on a permanent contract).

Training numbers

It is thought that the Care Closer to Home agenda and vision of shifting outpatient dermatology care into the community may have resulted in a reluctance to increase the number of trainee places. Changes to dermatology training numbers may have been delayed due to uncertainty over who will be responsible for service delivery in the shift to primary care. Commissioners have suggested they may reduce the need for secondary care services and therefore the number of consultants required. However, as previously discussed, there is rising demand for dermatology and there is also evidence to suggest that shifting dermatology into the community can actually increase referrals to the hospital sector (as outlined later in this report).

The DH [Department of Health] vision of reducing Consultant and Trainee numbers with the Care Closer to Home agenda was fundamentally short sighted and has in essence both diminished
and deskill the Dermatology workforce. The aftermath of this decision has resulted in a shortfall of Dermatology nurses and Consultants across England with not enough trainees coming up through the ranks to replace retiring staff. BAD

There is a difference between how dermatology is practised in the UK compared to other European countries. In the UK, dermatologists are required to study general internal medicine and awarded their Membership of the Royal College of Physicians (MRCP) before embarking on specialist dermatology training. In the UK there is also a separate specialty of genitourinary medicine (sexual health and HIV). This compares to a joint specialty of dermatology-venerology in Europe that has only a limited general internal medicine component. This makes comparisons with the European dermatology workforce problematic.

**Impact of shifts to more generalist training**
The recently published Shape of Training report is likely to have a number of impacts on workforce as the recommendations to move to a more generalist approach are implemented. For example: possible reductions in consultant in-training numbers; possible delays in numbers of consultants being available; shifts in the dermatology consultant workload be more generalised.

There may also be further pressure on the capacity of the workforce in response to emergency care pressures. Some of the stakeholder interviews also raised concerns that the RCP’s proposal for all specialists to undertake on-call emergency cover would make the specialty less attractive, as many (particularly women) chose it precisely because the working hours were viewed as relatively family-friendly.

**Workforce mobility and part-time working**
Several respondents to the survey conducted by BAD and The King’s Fund and workshop participants too noted that the consultant workforce was becoming increasingly part-time, and thought this was a reflection of the workforce becoming increasingly feminised. The feminisation of the specialist workforce was also discussed by several consultants in the stakeholder interviews (both male and female) and it was thought that this shift had resulted in a less mobile, more part-time consultant workforce, which limited the ability to recruit to some more rural areas.

**Sub-specialisation**
The UK has many national and international experts in dermatology who provide services for complex cases. There are also national commissioned group services for services that support patients with rare skin conditions. However, there is a lack of data around the number of consultant dermatologists that have specialised skills and knowledge. Most general dermatologists develop an interest in a particular sub-
specialty – for example, in paediatric dermatology, contact dermatitis, dermatological surgery, eczema, psoriasis, acne, or skin cancer. However, most clinics are general dermatology clinics and it is unusual to have sub-specialty clinics, even in teaching hospitals.66

Several of the survey respondents felt that there was inadequate specialist training and sub-specialisation, particularly for patients with multiple co-morbidities who have complex skin problems.

Having colleagues within a department who have supra-specialist interests allows us all to tap into their knowledge for our own patients. However, I think it is also important that we don't specialise too much – we all need to keep a broad base of knowledge, especially in those geographic areas where there are not many dermatologists. Consultant dermatologist

Some of the interviewees commented on the increasing specialisation amongst dermatologists within standard acute trusts (not just tertiary centres) – this can result in these individuals occasionally being unavailable for general dermatology services.

**Specialty doctors**

**Summary**

- There are regional variations in the number of specialty doctors.
- Some specialty doctors go on to complete CCT training and become consultants through Article 14. However, there is a lack of continuing formal training and education to support doctors who wish to remain at the specialty doctor grade.

Specialty doctors are the lost tribe. We have fantastic specialty doctors here, but they feel underpaid and neglected, and there is the generic issue of not enough training. There are opportunities to develop specialty doctors that exist already and encourage this as a career path. Consultant dermatologist

Specialty doctors (also known as SAS Non-Consultant Career Grade Doctors) are a key component of the specialist team. Although there are doctors who remain within the specialty doctor grade, there are alternative routes to achieve consultant grade, increasingly through Article 14.67

In dermatology, there is no structured training towards the Certificate of Completion of Specialist Training (CCT) within the specialty doctor posts, and at present it is not possible to apply for a consultant post without a CCT.68
According to the BAD 2012 workforce survey, there were 275 WTE specialty doctors in England that year. The average was 27.5 WTE per region (regions are based on historic strategic health authority (SHA) boundaries). However, there was variation within this, with the North West having the highest number of non-consultant grade clinicians, at 38.5 WTE, and the South West having only 22.4 WTE.

**Specialist dermatology nurses**

**Summary**
- Exact workforce numbers and job roles are unclear.
- There are concerns around the ability to increase numbers and succession planning for the following reasons: there is no structured standardised training programme for specialist dermatology nurses; it is thought that younger nurses may not find the specialty an attractive career; and there is an ageing workforce.

Patient, consultant and GPwSI stakeholders all viewed specialist dermatology nurses as valuable members of the dermatology team, who were usually well trained and knowledgeable. In addition, over 35% of respondents to the survey conducted by BAD and The King’s Fund felt that specialist nurses are or could be an invaluable component of the service.

*Dermatology specialist nurses working under the supervision of a consultant can be a valuable and cost-effective method for providing care.* Consultant dermatologist

*The specialist nurses are the most valuable part of the service; they provide continuity, empathy, and are specialists in their subject.* Patient representative

The majority of specialist nurses work under the clinical governance and supervision of the consultant, or have very close links to a specialist team.

The exact number of nurses working in dermatology is difficult to ascertain and there are different figures given nationally. It has been estimated that around 800 nurses are currently working in dermatology. This is thought to be an underestimate, due to the nature of outpatient nursing in many medical outpatient departments, where nurses cover a number of specialties within their working day and also because it is difficult to obtain figures for specialist nurses working in primary care.69
However, the BAD reported that there were 295 specialist nurses working in dermatology in the UK in 2010, broken down into the following: 

- Dermatology clinical nurse specialist: 242
- Dermatology nurse practitioner: 26
- Skin cancer nurse specialist: 19
- Dermatology liaison nurse: 5
- Nurse consultant: 3

Another survey suggested that there are approximately 1.5 FTE nurses in each specialist unit, however, an audit of UK psoriasis services found that 20% of units did not have a specialist dermatology nurse. Anecdotally, there is variation in the multidisciplinary skill-mix of the specialist team, and specialist nurse numbers do seem to be higher in units that do not utilise GPwSI and vice versa.

There is no recommended level of specialist dermatology nurse provision in specialist dermatology services, and it would depend on the services provided and the breakdown of the team. However, a lack of specialist nurses was flagged as an issue by over 10% of respondents to the survey conducted by BAD and The King’s Fund in July 2013.

Stakeholder interviewees raised concerns around recruitment and succession planning of specialist nurses for the following reasons: the workforce is ageing; there is a lack of new recruits coming through; and there is no formal training programme for specialist nurses.

There is no standardised post-qualification educational nursing programme in dermatology; however, a number of modular training courses are available through educational providers, although the composition varies and qualifications range from certificates of attendance to Masters degrees. There is also evidence of distance learning and work-based learning approaches and supportive funding.

*Nurse training in dermatology is 'hit and miss'. There is a stand out course in Hertfordshire, but there is no standard training that a specialist nurse should have.*

*We offered a dermatology nursing degree locally, but only had six people sign up, which isn’t viable to run. And most nurses that go on training courses go to get the qualification, as they already have the experience from their day job and just want the recognition.*

A snapshot of the dermatology nurse workforce obtained through a survey conducted by the British Dermatological Nursing Group (BDNG) in 2004 suggests workforce gaps may be an increasing issue.
• The age profile showed a relatively ‘old’ workforce, with only 17% of respondents being under 30 years of age, while 68.7% are over 40 and 31% will have retired by 2014.
• Newly qualified nurses were not attracted into the specialty.
• The work carried out by non-registered members of the team was not captured by the survey.
• 78.4% of respondents were from hospital trusts, leaving the primary care profile largely uncaptured.
• There were no guidelines or recommendations for patient-to-staff ratios in any of the care settings.
General Practitioners with a Special Interest (GPwSI) in dermatology

Summary

• It is unclear how many GPwSIs there are in dermatology.
• There are issues around succession planning for GPwSI services, as services have often developed around an individual’s enthusiasm and expertise, and rely on support for consultant services.

Some GPs have acquired enhanced skills in dermatology to become GPwSIs and deliver elements of specialist care that were traditionally provided by specialists in a hospital setting. It is unclear how many GPwSIs there are in dermatology, as primary care trusts (PCTs) did not keep a record of those practising in their area and many GPwSIs are not accredited. Also, GPwSIs do not have to become members of the British Association of Dermatologists, and membership of the Primary Care Dermatology Society\(^2\) is voluntary, so it is difficult to determine exact workforce levels.

Succession planning is an important issue for GPwSI services where they are often relatively separate from the main specialist services. Even when they are under the supervision of the consultant team, there can be challenges around filling the service gap when the GPwSI moves on (as the GPwSI service is often built around an individual’s skills and enthusiasm, filling the role can be difficult as they are more specialised than a GP but not qualified as consultants’).

The big difficulty around GPwSIs is they are GPs with an enthusiasm, and if they have an enthusiasm, why not be a dermatologist? It’s usually people who can’t make up their minds what they want to do, so don’t stick at it. Locally we trained up two GPwSIs and now both are changing career as they are off to try something different. But it leaves us high and dry with 200,000 patients to cover and local GPs that have been de-skilled in primary care dermatology.

Workshop participants also highlighted issues around recruitment and retention of GPwSIs (in one area, eight GPwSIs were trained three years ago and now only three remain due to difficult relationships with secondary care and the difficulty of back-filling the GP in the practice). Where the GPwSIs have remained, it is sometimes a result of the private sector stepping in.

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\(^2\) The Primary Care Dermatology Society (PCDS) is the leading primary care society for GPs with an enthusiasm for dermatology and skin surgery. The society has grown in size and influence and now has more than 1,500 members across the UK and Ireland. It is affiliated to the British Association of Dermatologists and the Royal College of General Practitioners.
There are approximately 60,000 GPs licensed to work in the UK.\(^7\) England, Wales and Northern Ireland all have similar coverage of around 6.6 GPs per 10,000 population; however, Scotland has a higher coverage of 8.2 GPs per 10,000. Scotland also has a younger, more feminised GP workforce.\(^9\)

Although there are increasing numbers of GPs, the increase has not kept pace with the number of other doctors. The number of GPs grew by at least 29% between 1995 and 2011; however, the total number of consultants in other medical specialties doubled over that period.\(^8\) Rates per 10,000 population are increasing, but the national picture masks considerable local and regional variation, with access to GPs still unequal between areas of high and low deprivation.\(^9\)

<table>
<thead>
<tr>
<th>2012</th>
<th>England</th>
<th>Scotland</th>
<th>Wales</th>
<th>Northern Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPs per 10,000 population</td>
<td>6.7</td>
<td>8.2</td>
<td>6.6</td>
<td>6.5</td>
</tr>
<tr>
<td>% GPs aged over 55</td>
<td>22.5</td>
<td>19.5</td>
<td>23.4</td>
<td>24.4</td>
</tr>
<tr>
<td>% female GPs</td>
<td>47.1</td>
<td>50.3</td>
<td>44.1</td>
<td>43.8</td>
</tr>
</tbody>
</table>

Table 5: Health and Social Care Information Centre (2013) NHS Staff - 2002-2012, General Practice Publication date: 21 March 2013

Dermatology consultations form a key part of the workload of a practising GP. However, GPs have only limited training in dermatology (as discussed later in the report). Any change to the role of the GP in diagnosis and treatment of skin conditions should bear in mind that the existing GP workforce is currently under considerable strain and has insufficient capacity to meet current and expected patient needs.\(^8\) There are a number of key issues impacting on primary care services:

- GPs are facing increasing demands from ageing patients with multiple chronic diseases and therefore presenting more complex issues. A survey of GP workload suggests longer average consultation times, more consultations per patient (particularly for older people), and more case complexity than a decade or two ago.\(^8\)
- There are increasing demands from other specialties wanting to up-skill GPs.
- The role of the GP has expanded over the past decade, with increasing demands and competing tensions. A significant proportion of a GP’s
role now involves non-clinical duties, such as within clinical commissioning groups. There are also pressures on GPs’ time from inspection bodies such as the Care Quality Commission (CQC).

- There are moves to develop federated practices, creating larger primary care providers. Although this offers opportunities for new service and workforce models, reorganisation can create delays in modernisation.
- There is increasing use of nurse practitioners in primary care to see patients with minor illnesses and skin conditions. This is of concern, as practice nurses often have less training in dermatology than GPs.

Community nurses

**Summary**

- Community nurses are likely to see increasing numbers of patients with complex skin conditions, particularly elderly patients.
- Workforce numbers have not kept pace with demand and the variation in the number of community nurses across the country is likely to be a barrier in developing the community nurse role to take on the management of dermatology patients.

Community nurses see and treat patients with skin conditions on a daily basis. Although the breakdown of their workload is unclear, seeing patients with skin conditions forms a considerable component of it. However, the workforce coverage across the country varies and community nurses have other competing pressures on their time.

Table x outlines the variation across England in WTE community nurse and community support staff per 1,000 population. The North East and North West have the highest coverage of community nurses, whereas East of England, London and South Central have the lowest.

<table>
<thead>
<tr>
<th>FTE per 1,000 Sept 2012</th>
<th>England</th>
<th>North East</th>
<th>North West</th>
<th>Yorkshire and Humber</th>
<th>East Mids</th>
<th>West Mids</th>
<th>East of England</th>
<th>London</th>
<th>South East Coast</th>
<th>South Central</th>
<th>South West</th>
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</thead>
<tbody>
<tr>
<td>0.9</td>
<td>1.3</td>
<td>1.2</td>
<td>1.0</td>
<td>0.8</td>
<td>1.0</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
</tr>
</tbody>
</table>

*Table 6: Source: The NHS Information Centre NHS Hospital and Community Health* and The King’s Fund analysis team

An increasingly elderly population, together with the policy shift to prevent hospital admissions and manage patients in the community, is likely to increase the number of complex skin conditions treated by community nurses. The proportion of activity in general practice undertaken by nurses has already grown markedly in the past 13 years, rising from 21% in 1995 to 34% in 2008. However, the number of
nurses in the community has only marginally increased over the past decade and the nursing workforce is not currently shifting into the community. In 2002, 20% of qualified nurses were designated to community services, and by 2012 this had only increased to 22%.\textsuperscript{87}

Also of concern is the low number of district nurses being trained; a recent report by the Queen’s Nursing Institute found that 21% of district nursing courses in England did not run a cohort in 2012-13; and at least 67% of district nursing courses running in England in 2012/13 had 10 students or fewer on the programme, with 13% having only five students or less.\textsuperscript{88}

If community nurses are to take on an increased role in managing patients with skin conditions in the community, then the above constraints should be borne in mind.

**Pharmacists**

**Summary**

- There is a high proportion of locum community pharmacists, which may be a barrier to developing the role of pharmacists around self-care and medicines reviews.
- There is little evidence of Pharmacists with a Special Interest (PhwSIs) in dermatology, and further research in this area would be welcomed.

It is unclear what proportion of a pharmacist’s time comprises of providing advice and guidance on treatments for skin conditions. Given the importance of obtaining an early diagnosis, further work is needed to determine the capability of pharmacists to effectively diagnose skin conditions.

The pharmacy workforce is relatively young, female and part-time.\textsuperscript{89} Over 70% of pharmacists work in the community and more than half work for multiple pharmacies.\textsuperscript{90} However, community locum pharmacists represent more than a third of all community pharmacists.\textsuperscript{91} The high proportion of locums may hinder development of the community pharmacist’s role in supporting self-care and be a barrier to enhancing training and education.

In 2009, guidance for creating Pharmacists with Special Interests in skin conditions was published. This proposed a number of possible models, including the following:

- A PhwSI participating in a multidisciplinary skin conditions clinic, led by a consultant dermatologist. This might be located in a primary care, community or outpatient setting.
• A PhwSI providing a specific, extended skin conditions service based in primary care with appropriate supervision and referral links to specialist services for skin conditions and local GPs. For example, with appropriate training and facilities, this could involve monitoring and adjustment of treatments for eczema or psoriasis.
• A PhwSI working in a GP practice to provide extended care for people with skin disease.

It was strongly recommended that PhwSIs operate within the local clinical governance framework and within their scope of professional practice. However, there is a lack of evidence about uptake of these roles and whether they have been successful.
4 Issues around current service provision

Self-care, pharmacy and patient participation

Summary
- There are low rates of treatment adherence in dermatology.
- Patient support groups are valued by patients and professionals alike for their role in providing advice and support to patients and the NHS.
- The 150 patient information leaflets on the BAD website provide a valuable source of advice and guidance, but there are issues around accessibility.
- It is unclear how far patient representation extends in dermatology service design and delivery.
- Willingness to pay for effective treatment is high for acne, atopic eczema and psoriasis (higher than for angina, hypertension and asthma).
- Community pharmacists receive minimal training, and further evidence is needed on the effectiveness of advice and guidance provided by pharmacists.

Self-care
Some estimates put the proportion of patients with a skin problem self-treating as high as 86%. Some problems in dermatology, such as warts, are increasingly being self-treated, possibly reducing the number of primary care referrals.

Self-care increasingly involves accessing information from the internet – from sites including Patient UK, NHS Choices and NHS Direct. The BAD website provides more than 150 patient information leaflets on common and very rare skin conditions; however, knowing where to access these relies on the clinician signposting patients to the website or printing out copies for them.

Services to support self-care for patients with skin conditions also include patient support organisations, who often rely on donations from individuals and pharmaceutical companies (which poses a significant conflict of interest). Although evidence on the effectiveness of self-help organisations is not available, their role is valued by patients and health care professionals.

Pharmacy
When patients self-care, they sometimes utilise over-the-counter treatments. However, studies suggest that of the 14% of people that seek advice about a skin problem, only 17% visit a pharmacist. The opportunity to support self-care is significant, reflected by spend on over-the-counter (OTC) sales – people spent £413 million on OTC (18% of total
OTC sales) on skin treatments in the UK in 2007.  This may be due to high levels of willingness to pay for effective treatment for acne, atopic eczema and psoriasis (higher than for angina, hypertension and asthma).

Many pharmacists currently undertake dermatology medicines use reviews (MURs) and rate themselves as confident in this role. In 2012, a total of 870 pharmacists responded to the survey on MUR for people with chronic skin conditions; 44% of respondents had undertaken a dermatology MUR, with eczema/dermatitis and psoriasis being the main conditions encountered.

The same survey found that 78% of community pharmacists felt that patients sought their advice on problems about dry skin on a weekly basis. A total of 64.8% had undertaken postgraduate training in dermatology; the majority agreed that they played an important role in managing patients with skin problems.

One recent study in Ireland aimed to assess pharmacists’ ability to recognise and offer appropriate management advice on common dermatological conditions. Of the 34 pharmacists who took part in the study, it was found that the correct clinical diagnosis was made only 49% of the time and effective OTC treatments offered only 26% of the time. Five of the photos used in the study illustrated dermatological conditions for which direct referral to a GP should have been advised; however, many of the pharmacists failed to appropriately refer to GPs (e.g. only 47% would refer moderately severe hand dermatitis directly to a GP).

Overall, the study concluded that the diagnosis and appropriate treatment of common dermatological conditions by pharmacists was suboptimal. Of particular concern was the lack of appropriate treatment for common conditions and a failure to refer appropriately to primary care. The study recommended more education and training in dermatology for these health professionals.

Overall, training of pharmacists in the management of skin problems is limited and there is a lack of evidence on their effectiveness in providing guidance and management for people with skin conditions. Although there is an accredited open learning course for pharmacists, published by the Centre for Pharmacy Postgraduate Education, there is no requirement that pharmacists should undertake this course, nor any incentive for them to do so.

**Shared decision-making and adherence**

There have been several studies highlighting concern around the low levels of patient adherence to dermatological treatment. One study found that reduced adherence to dermatological treatment occurs in 34-45% of patients. It is likely that the percentage of patients who practice truly optimal treatment in their daily life is even lower.
A survey of more than 1,500 Psoriasis Association members found that at the point of diagnosis (whether by a GP in primary care or a specialist in secondary care), patients expressed some dissatisfaction with the information they received; 54% were not given adequate information about psoriasis and 56% were not given sufficient information about the treatments available. In addition, 74% reported that they were not offered different treatment options and more than half did not feel included in the decision-making process about their treatment. Half of respondents would have welcomed more time, support, and the opportunity to ask questions, and only 10% were given contact details of support organisations— all of which is likely to reduce the chances of patient adherence to treatment.

There is significant scope to improve adherence and, through this, patient outcomes.

**Patient participation in service provision**

Patient engagement and participation in dermatology service provision is also an issue that should be addressed: 10% of respondents to the survey conducted by BAD and The King’s Fund felt that there was poor patient participation in the delivery of services, and that patients felt confused about who provides care and where care is provided.

> Our specialty needs proper patient representation, particularly due to the chronic nature of many skin diseases and lack of provision in certain areas. We need to entrench patient-centred care. Consultant dermatologist

> The patient groups have huge numbers of well-informed patients and they are an untapped resource. These groups want to help and we should encourage their role. GPwSI
Psychological impact of skin conditions

Summary

- Many patients suffering from a skin disease (particularly those with chronic conditions) also suffer from pronounced psychological distress.
- Overall, mental health provision for dermatology patients is poor and minimum standards to support patients with psychodermatological distress are often not met.
- Consultants are often time-limited and see only the skin condition in front of them, rather than the patient’s holistic needs; few ask the patient how the condition affects their daily lives.
- There is concern that GPs lack understanding of the psychosocial impacts of chronic skin conditions on patients.

One of the patients interviewed during the research kindly sent us her thoughts on the current dermatology service (see box). This clearly illustrates the psychological impact of skin conditions (in this case psoriasis) on patients, and the impact that the service can have on patients’ psychological well-being.

Box 2
Living with psoriasis: one woman’s story and experience of care
Thirty-five years ago I developed psoriasis at the age of 11. After the school nurse had rummaged around in my hair – again, the conclusion of ‘cradle cap’ eventually being discarded – she admitted defeat and suggested I see my GP. He, too, had a good rummage and thought it might be psoriasis but would refer me to a dermatologist. I was lucky, twice: first, that he even recognised scalp psoriasis; and, second, he was prepared to refer me up to hospital straight away.

Thirty-five years later, and I wonder how many 11-year-old girls would have such a positive experience with their GP. Would their GP even recognise scalp psoriasis after minimal, if any, dermatology training at either undergraduate or postgraduate level? More likely is that she would be prescribed any number of shampoos, ointments, and lotions over any number of visits, before finally a referral being made.

And then the wait. By the time the hospital appointment comes through, she will no doubt have been itching and flaking for many months with no firm diagnosis and seemingly useless creams. And all this is on top of coping with school and how unkind pubescent youngsters can be, and her own declining self-esteem. She may decide it’s easier to just not have any friends.

While she’s waiting for a doctor, anyone, someone, to explain to her what it is and to give her something which might help, she has no idea how to
live with it. And her family don’t know either and she doesn’t want to upset them any more than they already are, so she pretends everything’s ok while they notice her becoming increasingly withdrawn. Or louder and angry. Or apparently gregarious. Or any action to mask how she’s really feeling. Her actions speaking louder than her lack of words.

Once a diagnosis from a specialist is made, what experience will today’s 11-year-old have? A raft of topical treatments, all of which are time-consuming, most of which are messy, which may or may not reduce the symptoms. If not, possibly phototherapy – time-consuming for her and an accompanying adult – or systemic treatments. If they work, she’s lucky, but then there’s always the side effects and the hope they don’t stop working. And when she’s under control, she’s discharged back to a GP who knows precious little and simply doles out repeat prescriptions with little oversight.

When the flare-up happens, which it will, it’s back on the waiting list, no appointment in weeks, make that months, even as an emergency, and starting again. Goodness knows whether she’ll be lucky enough to see the same doctor again. Not knowing who she will see, or when, or how often.

No one to be a constant guide and support. Precious little chance of being referred to a nurse-led team with familiar medical faces and thorough knowledge of her condition and treatments on quick appointment times when things are bad.

But let’s not forget, it is ONLY her skin after all.

The service needs to be aware of the long-term nature of psoriasis – that it is a long process of ups and downs, not simply a one-off appointment to obtain a diagnosis and a prescription. Patient organisation

Psychodermatology refers to either the primary psychiatric diseases with which patients present to dermatology departments or to the psychosocial co-morbidities experienced by a large number of patients with skin disease. Skin disease may elicit psychosocial co-morbidities, and psychosocial stresses may elicit skin disease.¹¹⁵

There is now a considerable body of evidence about the way skin diseases result in psychological problems and a poor quality of life.¹¹⁶ There is also evidence that life choices and employment opportunities are influenced by chronic skin disease.¹¹⁷ A national survey undertaken by the BAD in 2011 to assess the availability of psychodermatology services revealed poor provision, despite dermatologists reporting that 17% of dermatology patients need psychological support to help with the distress that
accompanies a skin condition, and despite 85% of patients having indicated that the psychosocial aspects of their skin disease are a major component of their illness.\textsuperscript{118,119}

A recent European study found an increased suicide risk in patients with psoriasis, atopic dermatitis, and acne, with higher risk in patients in whom the skin condition is associated with clinically significant emotional distress, changes in body image, difficulties in close relationships, and impaired daily activities.\textsuperscript{120} A Canadian study found a 5.6%–7.2% prevalence of active suicidal ideation among psoriasis and acne patients (compared to a 2.4%–3.3% prevalence among general medical patients). This study highlighted the importance of recognising psychiatric co-morbidity, especially depression, among dermatology patients and indicated that in some instances, even clinically mild to moderate disease such as non-cystic facial acne can be associated with significant depression and suicidal ideation.\textsuperscript{121}

Studies have found that psoriasis has a greater impact on quality of life than hypertension and angina,\textsuperscript{122} and has as much negative physical, social and psychological impact as life-threatening conditions compared to angina or cancer.\textsuperscript{123}

Studies have also identified the significant impairment that skin disease can have on the partners and relatives of those affected – the concept of the ‘greater patient’.\textsuperscript{124,125}

In terms of psychological support available to patients, the BAD 2011 survey showed deterioration in the provision of psychodermatology services across the UK, since the last survey undertaken in 2003.\textsuperscript{126} This is despite clear recommendations from the 2003 report that psychodermatology services should be expanded. This is supported by a recent survey of more than 1,500 Psoriasis Association members, which found that despite 54% of respondents experiencing emotional distress, only 13% of those affected received professional help for it.\textsuperscript{127}

Present psychodermatology provision is dependent on a very limited number of services provided by a small number of dermatology teams, some of whom work with psychiatrists, psychologists and nurse specialists to offer services and support for dermatology patients.\textsuperscript{128}

An audit of UK psoriasis secondary care services found that 56% of units lacked a clinical psychology service willing to accept adult dermatology patients, and 59% (55/93) lacked psychological services for children.\textsuperscript{129}

Despite the BAD producing minimum standards required to support patients with psychodermatological distress and details of the appropriate skill-mix recommended for different levels of distress, there are very few
dedicated psychologists working jointly in dermatology clinics and the exact nature of the multidisciplinary team is highly variable.\textsuperscript{130}

All the stakeholder interviewees recognised the psychological impact of skin disease on patients, particularly those with chronic complex skin conditions. However, many felt that the standard 10-minute clinic appointment was too short to look at the wider holistic needs of the patient, whether psychological needs or co-morbidities.

Some consultants took the approach of using the general dermatology clinics to ‘triage’ some of the more complex patients and then stream them into a dedicated clinic for their skin condition (e.g. psoriasis clinics, eczema clinics). These clinics usually offered longer appointments and had specialist nurses trained in that skin condition to provide patient support.

Some consultants did refer patients to psychological therapies and had good links with psychological services. However, this did not seem to be a universal approach, and many consultants reflected that they were often time-limited to dealing only with the skin condition in front of them, rather than the patient’s holistic needs, and asking them how it was affecting their daily lives.

As a result of recognition of this issue, the BAD has recently been awarded a grant from the National Institute for Health Research (NIHR) to develop a web-based resource to support patients with the psychological aspects of skin disease. However, this project is at an early stage in its evolution and outcome data are not yet available.

\textit{In over two decades of having a chronic skin condition and seeing numerous health workers, I have only had one consultant once hesitatingly ask me ‘How do you cope?’ Other than that, no one has asked me about how it impacts on my life.} Patient representative

\textit{We need more time with patients with chronic skin conditions; they are more likely to have ischemic heart conditions in the future and psychological issues, yet in the 10-minute appointment I can only deal with the main issue I see, which is their skin. I don’t have time to look at the patient holistically, which is what we should be doing.} Consultant dermatologist

There was also concern that GPs’ ignorance of skin conditions can result in them failing to respond appropriately to the physiological impact of the condition.
When I go into the GP room and sit across from them, I feel even more isolated. They don’t shake my hand, touch me or even look at me, they just stare at the screen and type out a referral to the consultant, and I think, ‘If you won’t touch me or even look at me, why should anyone else?’ I also think it’s unacceptable that as a trained health care professional they are so ignorant of a condition that affects many people. It’s simply not good enough.

Patient representative

Primary care diagnosis and treatment of skin conditions, and onward referral

Summary

- There is a mismatch between high levels of demand in primary care and low numbers of adequately trained health care workers to meet this need. There is no compulsory dermatology training for GPs and the training that is available is inadequate. Training and education for GPs (both at undergraduate and postgraduate level) need to be urgently addressed.
- There is significant variation in referral and prescription rates between areas; 21% of referrals to specialist care could be dealt with in primary care. There is also concern that variation in diagnosis and management in primary care could result in patients that need to be referred to specialist care being missed, or being misdiagnosed and mismanaged.
- Community nurses are likely to see increasing numbers of patients with complex skin conditions, particularly among the elderly.
- Confidence and capability to manage complex skin conditions in the community will require education and training of the community nursing workforce. However, community nurses find it difficult to access training funds and be released to attend training in dermatology.

There is a lack of information about services provided for people with skin disease in the community, despite the fact that this is the location where most patients with skin problems are seen. The main form of provision is through GP consultations and also through community nurses and health care assistants, who provide treatment as well as advice and guidance.

GP education and training in dermatology

There are around 13 million primary care dermatology consultations with GPs each year,\textsuperscript{131} where patients with skin conditions are diagnosed and treatment recommended. However, 5.5% of these consultations are referred to specialist dermatology services;\textsuperscript{132} a high percentage of these referrals (31%–59%) are for diagnosis.\textsuperscript{133}
Interviewees and workshop participants valued the work that GPs do to diagnose and treat skin conditions in primary care, but recognised that their capability and confidence was limited by inadequate training and education.

*The quality of primary care is patchy. This is not the failure of the GP – it is a result of a lack of undergraduate education.* Patient representative

**GP education in dermatology must be compulsory. You can increase the number of dermatologists, but until you get GP education right it’s pointless, as there will be ever-increasing demand.** Consultant dermatologist

Undergraduate GP dermatology teaching averages approximately only six days and most GP training schemes have no dermatology attachment. The consensus at the workshops and through the interviews was that dermatology undergraduate training averages a couple of weeks at most, is variable in terms of quality as well as syllabus, and it is not compulsory. Workshop participants also expressed concern that undergraduate education in dermatology can often be undertaken in the community, which suggests that trainees may be being taught by GPs who themselves have very limited training in dermatology. Medical education prospectuses from several universities were reviewed and did not contradict these findings.

In a much older study, in 1996, 456 GPs in Avon were surveyed, and despite willingness to shoulder more of the dermatological burden, only 31% had received any postgraduate training in dermatology. More than half (57%) said they had little interest in the subject and had not attended any form of dermatology teaching since qualifying.

Workshop participants were also concerned by funding cuts to GP postgraduate education by the clinical commissioning groups (CCGs) and felt that the training that did exist was usually uninspiring and did not address the main issues that GPs saw in consultations regarding skin conditions.

There is a growing sense of frustration around the lack of compulsory training in dermatology for GPs, highlighted again at a Parliamentary debate on 4 December 2013. Despite the All Party Parliamentary Group on Skin reviewing and recommending training for health care workers on dermatology, there has been no increase in dermatology training. This urgent need to address GP training and education was reinforced recently by the Chief Medical Officer, who called for dermatology training to be incorporated into the additional year of GP training.
The capability of the GP to diagnose and treat skin conditions hasn’t improved in 35 years, and if you had any other area in the NHS that failed to improve in 35 years you would give up on that model and think of an alternative. Patient representative

Somehow it’s acceptable that other specialties and GPs don’t need to know about skin, yet if a doctor didn’t know the fundamentals about the heart, you would be viewed as incompetent. GPwSI

The impact of this lack of GP dermatology training is discussed in the next section, and options for addressing the gap outlined later in the report.

**Variation in referrals**

Over the five years from 2007/8, there was a 15.5% increase in GP referrals to dermatology and a 3.7% increase in consultant referrals, although this increase has levelled off in the past few years (illustrated in the graph below).

![Graph showing number of referrals over years](image)

*Figure 3: Number and rate (per 1,000) of dermatology outpatient referrals by source of referral, England, 2007/8 to 2011/12*

*Source: The King’s Fund analysis using NHS Comparators*

This increase masks a huge variation between areas, as illustrated in the graph below, where the number in the bars represents the combined average referral rate per 1,000 population for each PCT quintile (data by CCG are not yet available).
Figure 4: Rate (per 1,000) of dermatology referrals to outpatient by source of referral and PCT quintile, England, 2011/12

Source: The King’s Fund analysis using NHS Comparators

This variation in referral rates cannot be explained due to regional differences in level of need. However, interpreting the variation is highly complex, as referral rates are influenced by many factors – for example: quality of GP diagnosis; availability of specialists; lack of availability of diagnostic equipment in primary care; population health needs; GPs’ attitudes towards risk; and patient pressure. For instance, interviewees thought that the large number of referrals to skin lesion two-week wait clinics were a result of GP attitude to risk and service availability. Some interviewees thought that remote areas may have lower numbers of referrals due to perceptions of distance to a specialist and ‘putting off’ going to a GP.

It should be noted that GP referrals to dermatologists may also be influenced by the number of dermatologists available. In a 1988 study, the number of patients seen in outpatients was strongly associated with the provision of consultants in all four specialties reviewed (including dermatology) and only weakly associated with need.

The quality of primary care diagnosis is a key aspect of the variation in referrals to dermatology, and there is significant scope to manage a
proportion of the current dermatology referrals in primary care by increasing the confidence and capability of primary care clinicians.

In 1996, a study of new referrals by GPs to a dermatology clinic over a six-month period was undertaken, and 686 consecutive referrals to one consultant were analysed for diagnostic accuracy and requirement for referral. It found that 21% of patients referred attended for once-only visits, requiring no specialised diagnostic or therapeutic procedures, suggesting that with improved capability and confidence, these referrals could have been managed within primary care. Only 47% of referral letters contained the correct diagnosis. The study concluded that there is potential to manage up to 30% of current dermatological referrals within the community.142 It should be noted that this is only one small study and more data and analysis is required to fully understand this issue.

Another study of more than 1,500 Psoriasis Association members found that the majority (91%) had approached their GP for diagnosis in the first instance, with 25% already believing they had psoriasis. The remainder sought the advice of a pharmacist (2%) or other health professional, including chiropodists and dermatologists. Psoriasis was correctly diagnosed initially for 75%, but 19% were given an incorrect diagnosis (some responses suggested that reaching the correct diagnosis could be a lengthy process, exceeding a year in some instances). The survey also found that of those who attended secondary care, 27% went on after specialist consultation to be referred to the dermatology specialist nurse. However, about half were only seen once by the dermatologist, suggesting that the referral was for accurate diagnosis and treatment plan, and that there is the potential to manage a proportion of this activity in primary care if there is some increase in capability.143

In a survey of patients referred to the dermatology outpatients department, 26% of referrals were considered more appropriate to be dealt with in primary care (these were reviewed by a senior house officer with three months’ practical dermatological experience),144 although it should be noted that this is a single study, and clinical views on what is “appropriate” for GP care may vary.

Secondary care dermatology services receive 882,000 referrals from GPs each year in England.145 Based on the lower assumption that 21% could be managed in primary care, this would equate to 185,220 dermatology referrals. If the total average income of a first outpatient appointment to an NHS hospital is £156,146 these referrals would create a combined cost of £28,894,320 a year to the dermatology services in England. If the assumption that a new patient appointment in outpatients takes 30 minutes of a consultant’s time (to review the referral letter, see the patient in clinic, and then write up notes and correspondence back to the GP), then the number of referrals that are seen in secondary care (that
could have been managed in primary care) equates to 92,610 consultant hours. If a consultant is contracted to work a 37-hour week, with five weeks’ holiday a year, then this would be 53 years of a consultant’s time on new patient referrals that could have been managed in primary care. Effectively, 53 FTE consultants a year could be freed up by increasing the capability and confidence of diagnosis and management of skin conditions in primary care.

Although the research outlined above found that a significant proportion of GP referrals to specialist dermatology services could be managed in primary care, it also raises concerns that there may be some patients who are not referred to specialists who should be (this is particularly of concern given the rising rates of patients with skin cancer). There is a lack of data on the quality of diagnosis and care provided by GPs, so it is not possible to determine how many patients who should have been referred to a dermatologist were not. However, in 2009, 45% of all complaints received by the General Medical Council concerned GPs, and the highest number of complaints against GPs concerned failure to diagnose or lack of referral to specialists.

The Medical Defence Union (MDU), which insures more than half the UK's GPs, stated that in 2010: 60% of cases against GPs were related to wrong or misdiagnosis by the GP; 15% cited the GP’s failure to refer the patient for tests or to see a specialist; and 10% complained of a mistake involving the patient's medication.147

In an MDU publication in 2012 that analysed 112 cases of minor surgery by GP members over a four-year period, cases relating to dermatology made up the highest proportion (43). Delays in diagnosis and referral accounted for 15% of the cases, predominantly involving dermatology procedures; in six of these, a malignant melanoma was initially missed or thought to be benign. Scarring from dermatology procedures also comprised a number of cases.148

**Variation in prescribing**
In England, in 2006, almost 35 million prescriptions were dispensed for items in the British National Formulary (BNF) section on skin conditions at a cost of more than £200 million.149

This cost may have increased as the use of biologics has increased. For rheumatoid arthritis, the average biologic drugs cost around £9,500 per patient per year, compared with around £450 per year for conventional therapy (this cost comparison may be similar in dermatology patients). Because of their high cost and specialised nature, they are excluded from Payment by Results (PbR). In 2007/8, expenditure on biologic drugs for the treatment of rheumatoid arthritis alone ranged from £0.8 million to £3.5 million per acute trust, and expenditure on biologic drugs accounted
for the highest pharmaceutical spend within some trusts; again, this is likely to be similar for the use of biologics in dermatology.\textsuperscript{150}

There is wide variation in prescribing costs for dermatology across the country, illustrated in Figure x. The data on prescribing costs was divided into PCT quintiles and the number in the bars represents the combined average cost per 1,000 population for each PCT quintile.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5.png}
\caption{Prescribing cost per 1,000 by PCT quintile, 2011/12}
\end{figure}

\textit{Source: The King’s Fund analysis using NHS Comparators}

There is significant scope to reduce prescription costs, based on the high level of variation and poor treatment adherence rates for patients with skin conditions (which suggests that patients may not have been given the most appropriate treatment for their skin condition).

\textbf{Community nurses and other community health professionals}

Community specialist nurses can provide support for education and self-management of chronic inflammatory skin diseases such as psoriasis, eczema and acne. In a questionnaire to 69 community nurses treating dermatological patients, 20% either treated children or gave advice to parents regarding childhood eczema, 51% treated adult eczema, 16% treated psoriasis, 80% treated leg ulcers, and 43% treated other dermatological problems.\textsuperscript{151} However, there is a lack of research on the proportion of time community nurses spend treating and supporting patients with skin problems.

It is thought that community nurses have an important role in enhancing care by treating and educating patients who may not require or be able to
attend hospitals for treatment. However, there is no evidence that they reduce secondary care referrals.\textsuperscript{152}

There are some skin problems (e.g. tissue viability) for which community nurses are considered both an effective and cost-effective way of providing treatment. There are tissue viability nurses in both the hospital and the community setting, and while some studies have strongly advocated community clinics on tissue viability (often focused on leg ulcers) as more clinically effective and cost-effective, there are often methodological concerns with these studies, particularly around valid comparisons. A review of studies around leg ulcer clinics found it difficult to conclude that community locations were more effective.\textsuperscript{153} One of the main factors in improving rates of healing and preventing recurrence was having nurses that were properly trained, and having access to necessary resources (regardless of where they are based).

Community nurse-led walk-in centres also see and treat a high proportion of patients with skin conditions. A study published in 2005 reported that 21\% of nurse-assessed patients attending a walk-in centre in the south of England had a skin condition, and of these, 89\% were recorded as having a rash. Of those seen, 16\% were advised to see their GP and 10\% to visit the local pharmacist, and most (52\%) were given advice about self-care/management.\textsuperscript{154} This reflects the similar case-mix in primary care, and workshop participants reported that some walk-in centres wanted further training in dermatology to ensure that they give high-quality advice and guidance to patients.

There are other health care professionals, such as podiatrists, physician’s assistants and non-registered staff such as health care assistants that are (or could be) involved in offering dermatology services. But to date, there is little understanding or evidence about how they might contribute to models of care.\textsuperscript{155}
Specialist dermatology services

Summary

- The majority of specialist dermatology services are delivered through the outpatient model, with variable links to other specialties.
- There is variation in specialist practice, and further audits of service delivery are needed to understand the extent of the issue.
- The majority of specialist dermatology services delivered through skin lesion and skin cancer services appear to be working well (although further clinical audits of GPwSI skin lesion services are needed), but are becoming an increasing proportion of specialist activity.
- Referrals include many that do not need to be treated, although there is a risk that reducing referrals may miss patients with skin cancer due to variation in diagnostic quality in primary care.
- The two-week cancer target may have resulted in poor access for patients with complex skin conditions; this is likely to be an increasing issue with rising rates of skin cancer.
- People with chronic skin conditions have difficulty re-accessing services.
- There is limited focus on addressing inequalities in access to dermatological services.
- There seem to be two ‘tiers’ of nurses: those that provide standard specialist dermatology nurse services, and those that provide more specialised services (often based around the individual nurse’s skills and knowledge).
- Nurses are often viewed as providing ‘value-added’ services to patients, but some nurses and nurse teams can shift activity from consultants and specialty doctors.
- There are examples of GPwSIs in dermatology providing a valuable role in the specialist team; unfortunately, there are also examples where they have increased referrals, increased overall costs, and led to quality concerns.
- Success of the GPwSI in the dermatology role is often dependent on it becoming a fully integrated role within the specialist dermatology team – under their supervision and clinical governance.
- There are issues around succession planning for GPwSI services, as services have often developed around an individual’s enthusiasm and expertise and can be relatively isolated from other specialist services.

The majority of specialist dermatology services are delivered through the outpatient model, and do not necessarily need to be located in a hospital. This is illustrated by Figure x, which shows that the majority of a consultant’s time is spent in outpatient clinics.
The following services are needed for most specialist dermatology services: 156

- Outpatient and day care for adults and children.
- Areas for contact allergy testing, with storage areas for allergens that meet national published standards.
- Surgical facilities that meet national standards for space, cleanliness and equipment, with storage for liquid nitrogen.
- Laser-safe areas with facilities for Mohs micrographic surgery where required, meeting national standards.
- Phototherapy units for adults and children staffed by trained dermatology nurses who can also provide skin care. Medical physicists should monitor ultraviolet (UV) output.
- Access to laboratory support including chemical pathology, haematology, radiology, microbiology, mycology, histopathology and immunopathology.
- Medical photography services (e.g. for mole mapping and monitoring).
- Pharmacy services.

There has been a continued reduction in designated dermatology beds accompanied by the development of outpatient-based treatments. Although the BAD suggests that there is an ongoing need for a minimum number of designated dermatology beds (two beds per 152,229 population), 157 the survey conducted by BAD and The King’s Fund suggested that dermatology does not need dedicated beds, except perhaps in the tertiary centres.

*Dermatology doesn’t need beds, we have seven here and patients are admitted when they don’t need to be. If a patient is ill enough to need hospital care, then they need to be on a medical ward with dermatology linking in.* Consultant dermatologist
Dermatology has many interdependencies with other specialties, which several dermatologists thought were often not fully thought through by other doctors and managers. These links include:

- Rheumatology
- Psychology
- Paediatrics – paediatricians often have limited dermatology training and all children admitted to hospital must be under the care of a paediatric consultant. Also, all paediatric dermatology outpatient appointments have to be in the paediatric outpatient clinic
- Plastics – most patients with skin cancer are managed by dermatologists, but some require input from a plastics surgeon
- There are increasing links to geriatricians
- Oncology / radiotherapy
- Histopathology – several dermatologists were concerned that there are moves to contract out histopathology to the lowest bidder
- Medical photography – several consultant dermatologists were concerned that cuts to this service would ultimately have medico-legal impacts
- Pharmacy in secondary care – making up the extemporaneous lotions and consulting on medicine reactions

Combined clinics between dermatologists and hospital specialists exist for complex problems such as rheumatology, plastic surgery, HIV, genital/oral diseases, psychiatry, paediatrics, genetics, stomas, eyes, vascular surgery, and allergy. However, the extent of such links is variable and tends to depend on the special interest of the individual dermatologist.

**Minimum standards**
Minimum standards have been published for some dermatology services with the aim of reducing variation in practice and improving clinical outcomes.

The BAD has been developing a Service Standards and Accreditation initiative over a number of years by first setting up working parties with the remit to provide a consensus statement for the Association on minimum standards which should be provided to support service standards for clinical interventions. Working party members are chosen for their specialist experience of practice in an acute delivery setting, and are multidisciplinary. A number of areas have been covered and more are in the pipeline. For example, audits of phototherapy provision found high variation in quality, and along with cases of burning and overuse of phototherapy exposures, led to the development of minimum standards. These standards are then turned into Service Standards and an accreditation process will be built around them. The Association will run the accreditation service, with the aim of quality marking existing services or giving departments the information they need to argue the
case with their trust management for improvements in their existing services. This process can also be used by commissioners to benchmark other providers.\textsuperscript{160}

Another audit of patch-testing in Wales found significant variation in practice. The guidelines for the management of contact dermatitis state that: there should be a named lead dermatologist who has had six months of training in a recognised contact dermatitis investigation unit; there should be a dedicated contact dermatitis clinic with appropriate storage and preparation areas; results and patient demographics should be recorded on a dedicated database; and participation in regular audit and benchmarking to national data is required.\textsuperscript{161} However, the graph below illustrates the extent of variation from the guidelines revealed by the audit. In addition, the number of patch tests carried out by individual centres ranged from 10 to 700 per year, supporting the overall conclusion of considerable variation in practice.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{patch-testing-audit-results.png}
\caption{Results of the audit of patch-testing in Wales, 2010 to 2011\textsuperscript{162}}
\end{figure}

The audit concluded that either the guidelines need to be adhered to more strictly or patch-testing needs to be restricted to those centres that can adhere to guidelines.\textsuperscript{163}

\textbf{Supporting specialist services in difficulty}

The British Association of Dermatologists has a process by which it can send in an expert team to review a service in difficulty, either one experiencing commissioning difficulty or difficulties between clinicians. This can be requested by either the consultants involved or the trust management, and is intended as a collaborative approach to improving patient services. In most cases, there is a lack of dialogue between the parties, and the review process helps to establish lines of communication that can lead to very real improvements in service delivery.\textsuperscript{164}
Variation in funding of treatments
Alongside variation in practice, there is the issue of increasing costs of treatments for people with chronic skin conditions (especially the cost of biologics) and variation between areas in funding expensive treatments – 15% of respondents to the survey conducted by BAD and The King’s Fund raised this as an issue. It was also felt that it was difficult to obtain funding for specialised services such as psychodermatology and phototherapy; the tariff system was cited as a key barrier to this.

Skin lesion services
40%–50% of specialist activity now relates to the diagnosis and management of skin lesions and suspected skin cancer; this figure is higher in parts of the UK where skin cancer is more common, such as the south coast. Basal cell carcinoma (BCC) numbers equal all other skin malignancies combined, and increased by 133% between 1980 and 2000. Reported melanoma incidence increased by 50% over 13 years.

The worldwide incidence of skin cancer (especially non-melanoma skin cancer) has risen dramatically in recent decades. Skin cancer, including premalignant lesions, is becoming a chronic disease. Dermatologists screen over 90% of skin cancer referrals and treat approximately 75% of them; the National Institute for Health and Care Excellence (NICE) recommends that high-risk BCCs (the majority of cases) are treated in secondary care.

The survey conducted by BAD and The King’s Fund found that over a third of respondents felt that the consultant-led skin cancer service and achievement of the two-week wait cancer target was working well, and believed that patients receive a good service. Many felt that the focus on delivering the two-week wait cancer target, supported by clinical guidelines, “has facilitated access for those with suspected melanoma and multidisciplinary care of patients with complex skin cancer has undoubtedly improved” (Consultant dermatologist). Multidisciplinary team working was cited as a valuable component of the service, particularly the availability of nurses to talk through diagnosis and treatment options with patients.

However, when GPwSIs are undertaking skin cancer services in isolation (i.e. not fully integrated and under the consultant’s supervision), there can be quality concerns. A randomised controlled trial published in 2008 compared skin surgery performed in primary and secondary care. The study concluded that the quality of minor surgery was higher when performed in hospital compared with general practice. Hospital-based services were also shown to be more cost-effective.

Another study compared the rates of completeness of excision for basal cell carcinoma (BCC) over a 12-month period and found that 58% of facial BCCs (and
47% of BCCs at other sites) excised by GPs were incompletely excised. The comparable figures for dermatologists were 7% and 5% respectively. These studies suggest that further audits of skin lesion surgery by GPwSIs are urgently needed.

Skin lesion referrals include many that do not need to be treated (benign lesions); however, reducing referrals may risk missing patients with skin cancer due to variation in diagnostic quality in primary care. A study in the south of England documented that 34% of skin surgery performed in the dermatology department in 2001 was for benign lesions. In view of the high skin cancer referral rate, the specialist dermatology team and the PCT agreed to try to reduce the amount of benign skin surgery activity and a limited list was established, with inappropriate referrals being sent back to the GP. A prospective three-month re-audit of surgical activity in 2007 showed that 90% of cases related to skin cancer surgery, with only 10% for benign lesions. The study demonstrated how education and collaborative working could ensure that non-essential surgery is not performed in specialist units.

Wirral PCT found that in 2005/6, its spending on surgery for minor, benign skin lesions for which there was little or no evidence supporting removal was £251,111 based on a population of 311,210. Extrapolating this for the England population of 56.1 million this equates to an unnecessary spend of £45.2 million on benign skin lesions. However, it should be noted that there is reluctance to undertake programmes that aim to reduce referrals in skin lesions due to the variation in GP diagnosis, and concern that skin cancers may be missed if GPs are encouraged not to refer skin lesions.

We met our dermatology commissioner once who told us he wanted to reduce referrals to reduce costs. We had to educate him in the need to ensure the right referrals were received, particularly for skin cancer ... It's a clinical governance issue. Consultant dermatologist

There are various models of skin cancer clinics; most have moved towards a ‘see-and-treat’ model, where large numbers of patients are screened and triaged either onto surgery lists the same day or referred back to the GP with advice and guidance. The aim is to reduce the steps in the process and efficiently treat patients without the need for multiple appointments. Patients are usually satisfied with this fast diagnosis and treatment model.

Complex skin conditions
Although respondents to the survey conducted by BAD and The King’s Fund thought the consultant-led skin cancer service worked well, 30% felt that patients with complex skin problems waited a long time for urgent
and routine appointments, and that there was not enough time spent with these patients. This was thought to be a result of the focus on achieving the two-week cancer wait target, resulting in an overall lack of capacity to see other patients. Several respondents were concerned that as the demand for skin cancer clinics is rising steadily, this would result in even less capacity to see patients with complex skin problems.

Targets for cancer have reduced capacity and there are unacceptable waiting times for patients with distressing inflammatory diseases. Consultant dermatologist

Several consultant and patient interviewees also thought that it was unacceptable that people with chronic skin conditions, often experts on their condition, had long waits to re-access services; they usually had to go back via the GP and wait in the referral process for a clinic appointment, and then often had to wait again to access treatment.

Getting timely access to a treatment of benefit is a challenge. For example, the actual waiting time for phototherapy treatment can be six months in some areas, so when the patient’s psoriasis has flared up, (re-)accessing services can be awful. Patient organisation

Re-accessing services when skin conditions flare up is a nightmare, often taking months, and when you go to the consultant they see the 10-minute appointment as an acute episode to deal with in that slot. But to me it’s one of a series of appointments, each with a different clinician. Patient representative

Addressing inequalities in access to dermatology services

One interviewee thought that dermatologists needed to increase their focus on inequalities, particularly ensuring high-quality accessible care for elderly patients with skin conditions.

We need to look at the inequalities around skin conditions – those in a job, a relationship and who have a high level of education are more likely to get treatment and adhere to treatment. Interviewee

Specialist nurse services

From the stakeholder interviews, there seemed to be ‘two tiers’ of specialist nurses, the ‘first tier’ of nurses providing ‘value added’ services once the patient has received a diagnosis, offering practical support and advice to improve patient adherence to treatments and overall patient outcomes (but not shifting activity from the consultant).
It is difficult for us to prove we reduce levels of referrals, and prevent GP appointments, but we can prove we enhance quality of life and make a difference. Specialist nurse

The ‘second tier’ of specialist nurses consists of highly trained and skilled nurses, with services often created around these individuals or specialist teams of nurses, which did shift activity away from the consultant.

However, during the course of the research, it became apparent that this differentiation may be a result of professional viewpoints and some bias – several consultant stakeholders were quoted as stating that nurses should only provide services to patients after a diagnosis and treatment plan had been developed and that they do not have the capability to diagnose. Other consultant and nurse stakeholders believed that specialist dermatology nurses are likely to have had far more training and experience in dermatology than a GP, and are likely to be highly effective in diagnosing and treating common skin conditions, as well as knowing when to flag concerns to the consultant.

It’s a myth that doctors have propagated that nurses don’t diagnose. Every clinical interaction has an element of diagnosis in it – for example, when a nurse is treating a leg ulcer, they are asking themselves, is it infected? Could it be cancer? Consultant dermatologist

We (consultants) would like to think we are the ultimate diagnostician, but everyone in a clinical position makes diagnosis. We have an excellent specialist nurse who diagnoses skin lesions and treats them, as well as children with eczema, and vulval clinics. Consultant dermatologist

However, there are numerous examples of successful nurse-led services that have been developed with the support of consultants, some of which incorporate both diagnosis and treatment.

Various studies on patients with psoriasis and eczema have found that interventions by dermatology specialist nurses improve the quality of life for patients, promote more effective use of treatments, and reduce the number of follow-up patients seen by the dermatologist. Dermatology nurses can also add to a dermatology consultation and provide effective patient education and support in managing a skin condition, freeing up dermatologists’ time, allowing them to see more new patients. Specialist nurse telephone clinics are also used in some areas, forming part of the outpatient services and reducing the need for follow-up appointments.
The establishment of nurse-led clinics alongside consultant ones (for acne, hand eczema, psoriasis, minor surgery, monitoring second-line drugs, and paediatric dermatology), the extended nurse role, nurse-led patient hotlines and nurse prescribing can lead to the reduction of waiting lists, increases in consultant outpatient appointments, and reduced patient ‘did not attends’.\textsuperscript{183}

There is also evidence that suitably trained specialist dermatology nurses, working as part of specialist dermatology teams, can provide a range of services in acute and community settings for people with skin disease.\textsuperscript{184} Specialist nurses in some areas provide outreach community dermatology clinics, with positive patient and GP feedback.\textsuperscript{185,186,187}

In some cases, services have been created around highly trained and highly skilled nurses. Examples include nurse-led skin lesion diagnosis and treatment clinics, and nurse-led lower limb cellulitis lymphoedema services. These services did usually shift activity away from the consultant, and in the case of the lymphoedema service, saved the acute trust £660,000 over three years in reduced admissions and length of stays.

There are individual examples of nurse-led services that may have shifted activity from the consultant to the specialist nurse – for example, in Northern Ireland in 2004, a specialist dermatology nurse (with a background in surgery, Masters in dermatology, and qualified as an independent prescriber) set up a one-stop service for diagnosis and treatment of skin diseases. There was a culture of nurse-led services within the area, so patients were used to the idea of being seen and treated by a nurse. One of the main drives for setting up the service was meeting waiting list targets, but clinical audit showed other benefits – not least that 13 BCCs were identified that had been missed at GP level. The service was mainly welcomed by doctors, but had initial teething problems (e.g. nurse referral to plastic consultants). It took time for other health care professionals to accept, trust and support the service. The service was the first practitioner in Northern Ireland to deliver digital dermoscopy – making malignant skin lesions easier to identify earlier than with the naked eye.\textsuperscript{188}

Both consultants and specialist nurses alike thought that specialist nurses had to be able to prescribe basic dermatology medications in order to free up consultant time and provide an efficient service to patients. An integral part of the optimised dermatology service model described in the Action on Dermatology Good Practice Guide is a comprehensive nurse specialist service offering nurse-led treatment clinics for patients suffering from common skin conditions.\textsuperscript{189} It is advocated that these clinics should include prescribing by nurses.\textsuperscript{190} One study in England found that nurse prescribing was being used in 10 practice settings to support and deliver a
range of services to dermatology patients. However, issues over support and access to continuing professional development (CPD) and capacity of the workforce were identified as potential barriers that could affect the contribution of nurse prescribing to dermatology patients.¹⁹¹

Nurses are already prescribing and more should be doing it; it transforms what you can do for patients. We prescribe emollients, topical treatments and sometimes oral antibiotics, but as we don’t have access to the patient’s full notes, we don’t prescribe beyond this. Specialist nurse

Nurse roles are variable and dependent on the calibre of nurse. I have some that I would trust without question, and the key is making sure they are competent and are prescribers so that you are not interrupted constantly to sign scripts. Consultant dermatologist

Many specialist nurses also work closely with cosmetic camouflage experts. For the most part, this service is provided by volunteers; often from the charity Changing Faces,³ although some specialist nurses are now taking on this role.

**GP with a Special Interest (GPwSI) services**

The need to reduce outpatient waiting times was a key policy driver behind the expansion of GPwSI services; however, patients would often prefer to wait and see a specialist.¹⁹² The GPwSI has been successful in many areas, but particularly where: there are good relationships between primary and secondary care clinicians; the role is integrated with specialist care and has consultant supervision; they provide the opportunity to pass on skills and knowledge to other GPs.

The key to making the GPwSI service work is good relationships developed over many years and making it a fully integrated service. Our GPwSIs are trusted colleagues, who are trained and supervised regularly and are part of the team. They are very sensible and don’t work beyond their capability. Consultant dermatologist

Our model totally relies on loyal, well-trained accredited specialist GPs, which have taken many years to establish. I have to say that I think we are an exception rather than the rule, as we had to develop along these lines as no one would give us junior staff / trainees, and our GP specialists are unique and extremely skilled (the shortest-serving one must have been in the department for eight years now). Many are as good as consultants. Consultant dermatologist

³ https://www.changingfaces.org.uk/Home
However, there are examples where GPwSIs have created local conflict and resulted in concerns around cost and quality. Although there are detailed safety, governance and training guidelines from the Department of Health for GPwSIs, some have not fully adopted these. A study in 2005 of 80 dermatology GPwSIs against the Department of Health’s guidance found that: 46% were not accredited; 14% had less than 12 months’ secondary care experience and 14% had no secondary care experience; 33% did less than the minimum monthly required practice time in secondary care; only 5% did the required 15 hours or more CPD a year; and only 25% attended dermatology clinical governance and audit meetings.

In 2007, the British Association of Dermatologists undertook an email survey of 37 GPwSIs, which found that pay rates for GPwSIs were variable, even in the same region, and did not correspond to the number of patients seen or the length of a session; this can result in significant pay differentials between the GPwSI, specialty doctors and consultants, which affects team morale. The survey also found that 73% of GPwSIs were undertaking surgery; nearly half did not have paid time for CPD and had to pay for their own courses and expenses; and 41% were no longer doing any hospital sessions where they would be able to develop their skills and knowledge of dermatology.

An economic evaluation of dermatology GPwSIs showed that the cost of care for the service was 75% more per patient than for the specialist clinic. Additionally, improved access to dermatology services for a whole health community requires the establishment of many GPwSI clinics, which further increases the cost.

An evaluation of two GPwSI services found that they were not cost-effective, they increased the number of referrals to secondary care, and the GPwSIs may not have had adequate training or CPD.

There is also evidence that some GPwSI services result in an increase in specialist referrals and may not be the most cost-effective way of increasing overall capacity of specialist services. In Norfolk, a dermatology intermediate care service was set up in 2005, providing services in two locations by two GPwSIs. The introduction of dermatology intermediate care services was followed by a 67% increase in secondary care new patients. It is unclear whether this increase in demand was due to more effective diagnosis, the new service creating additional demand, or a result of risk management in community care.

Another study found that the introduction of GPwSI services increased the number of referrals in a number of sites (by 6.6% in one, although the increase in referral rates from practices without access to the GPwSI service may have been higher). And although waiting time in days was
shorter for GPwSI clinics than for hospital clinics, the difference was not significant in all sites. Although referring GPs and patients liked the accessibility and lower waiting times, there were concerns raised by GPs around knowing which patients to refer, concerns about quality, and the possibility of longer waits for patients who subsequently needed to be seen by a consultant. It was found that clinical referral guidelines and triage arrangements were different for each GPwSI clinic and tailored to the skills of each GPwSI, raising questions about the nature and definition of an appropriate ‘intermediate’ case-mix. It was also found that the GPwSIs did very little in terms of educating and training referring GPs, which was a core component of their role as outlined in Department of Health guidance.

Experience within the ‘Action on Dermatology’ pilot sites and elsewhere shows that GP-led services need support from and access to strong dermatology specialist services. The workload involved in teaching and training, and providing ongoing professional development and support for GPwSIs, can be a significant one for consultant staff.

Some of the stakeholder interviews highlighted issues around succession planning for GPwSI services. Some GPwSIs have developed significant services and seem to undertake a high level of primary care dermatology activity as well as some skin lesion surgery under consultant supervision. However, these services seem to be based around individual enthusiasts and there appeared to be a lack of succession planning around key posts.

Succession planning is particularly an issue for GPwSI services where they are often relatively separate from the main specialist services. Even when they are under the supervision of the consultant team, there can be challenges around filling the service gap when the GPwSI moves on (because the GPwSI service is often built around an individual’s skills and enthusiasm, filling the role can be difficult as they are more specialised than a GP and not qualified as a consultant).

**Independent sector**

**Summary**
- People suffering from skin conditions have a high level of willingness to pay for treatments and there is increased likelihood of privatisation of some aspects of specialist care. However, large-scale delivery of dermatology services would be a challenge for the private sector due to the viewed hold of the acute trust on dermatology contracts and NHS pension benefits.

People suffering from skin conditions have a high level of willingness to pay for treatments and 15% of respondents to the survey conducted by
BAD and The King’s Fund were concerned about growth in the private sector.

There was some concern that the independent sector was setting up some nurse-led services that did not have adequate clinical governance or specialist care supervision. However, there was also a suggestion that the independent sector was offering services that fill the gap in primary care.

The private sector are filling the gap in primary care by providing a support and advice service for patients – for example, https://touchpsoriasis.co.uk/. Patient representative

There is anecdotal evidence that private providers have approached whole dermatology departments to form a business case with them for delivering dermatology services to NHS patients. The acute providers have often halted these relationships, and the loss of an NHS pension is a key barrier to working in the private sector for NHS staff. There is also anecdotal evidence that small-scale dermatology services are provided, but there is not the volume of high-paying activities to develop large-scale community dermatology services. These small-scale services are usually based around individual consultants (receiving referrals from NHS patients as well as individual payers and private insurance) or individual skin conditions (skin lesions).

A small amount of good quality competition (i.e. more than one local NHS dermatology provider) in a large catchment area drives up quality. In our county, I work in the main NHS trust, but also run a small, high-quality independent service in a rural community. This independent service competes with several large, surrounding trusts and has not impacted on their waiting times, and cannot therefore be viewed as a threat to them.
5 Commissioning policies affecting dermatology services

Summary
- Development of a dialogue between primary and secondary care and a cohesive approach to the development of dermatology services is more valuable than simply shifting services into the community.
- There is sometimes limited engagement with commissioners around dermatology services. There is also concern that commissioners lack a basic understanding of the patient need for dermatology services and often do not utilise evidence-based approaches to redesigning dermatology services – this is a significant risk to the service with Any Qualified Provider (AQP).
- There may be financial incentives that affect provider behaviour and overall financial stability of dermatology specialist services.

Shifting dermatology into the community
Dermatology is largely an outpatient service and has been viewed as a specialty that could easily fit into the 2007 Care Closer to Home agenda and be relocated into the community.

One of the benefits of moving dermatology into the community is improved patient access and greater convenience of community-based services for the patient. For example, if there is a critical mass, then a larger unit in the community could be established that includes ultraviolet B (UVB) and PUVA (Psoralen and ultraviolet light) cabinets – where access is easier, in terms of parking and opening times. Patients requiring these treatments often need to attend two to three times per week so easy access is very important to them, as well as extended hours. A few respondents to The King’s Fund and BAD survey suggested putting phototherapy in a bus so that it could regularly travel to key strategic locations in the community and be more accessible to patients.

However, simply relying on local initiatives to develop ‘shifted outpatient’ models of specialist outreach clinics may not be the most cost-effective approach, and they need to be part of a whole service (rather than being established on an ad hoc and uncoordinated basis).

The main impact of many previous service redesign programmes in dermatology was the development of a dialogue between primary and secondary care and a cohesive approach to the development of dermatology services. The value of this in terms of relationship building and establishment of trust should not be underestimated.

There are a number of key issues that should be considered if a ‘shifted outpatient’ model is adopted, as follows.
Although a predominantly outpatient-based model, dermatologists treat patients with a very wide range of complex skin conditions, and are called on to offer specialist advice to inpatients of other specialties.

Shifting large portions of the service to alternative community providers may destabilise acute and tertiary care services. Dermatology is a potentially profitable department, with a high level of referrals and outpatient procedures. It could be interpreted that acute trusts are financially incentivised to do as much outpatient activity as possible, and even do procedures of lower clinical priority, such as skin tags and cysts, to increase income. There has been some anecdotal evidence that acute trusts have been ‘marketing’ their dermatology services, presumably to increase income.

Moving a portion of the service into the community may impact on the ability to attract and retain trainee doctors.

A 2007 review of 119 studies relating to shifting care from hospitals to community settings found that there was some evidence that transfer of services to primary care and interventions to change referral behaviour did reduce hospital outpatient activity, but with some evidence of loss of quality of care. Relocation of specialists to primary care community settings and joint working improved access and retained quality, but there was little evidence of any reduction in outpatient activity, and costs were not usually reduced. Another study found that models of this sort may result in higher direct costs to the health economy.

Although a relatively older study, research on the costs and benefits of specialist outreach clinics was undertaken in 1996 by the National Primary Care Research and Development Centre at the University of Manchester. Dermatology was compared to orthopaedics in outreach clinics. Overall it was found that only 1 in 6 clinics had benefits in terms of GP education. And the effect on the hospital was significant due to the consultant travelling, which meant considerable absences. The report stressed that if the rising demand for community clinics was to be met, then the workload of hospital specialists would be adversely affected. Also, patients were not more satisfied, despite reduced waiting times and less travel. Patients with more complex conditions still needed to go to the hospital for tests and investigation. Once treatment and overhead costs were excluded, the community clinics were significantly more expensive than hospital outpatient units.

Shifting elements of the service into the community may result in fragmentation.

"Fragmentation of care pathways between the community and secondary care services is common and worsens with the use of multiple community providers. Cherry-picking in community services by some private providers diverts much-needed investments into
secondary care services, while creating further capacity issues for trusts”. As a recent report from the BAD cautions.215

**Commissioning and Any Qualified Provider**

The recent BAD report in commissioning highlights some of the main challenges and issues around dermatology commissioning and case for improving commissioning.216 Similarly many of the stakeholder interviewees felt that dermatology commissioning needed to be strengthened; they felt that commissioners often over-simplified issues of demand and attempted to control demand through reducing referrals or cutting some services, rather than seeing services as an integrated pathway.

*Ccg should commission a dermatology service prime provider for continuous care and quality improvement. The contract should enable the mentoring aspects of the role rather than fee-for-service.*

Senior manager in commissioning

There was also concern that GPs within the CCG were ‘cherry-picking’ low complexity cases to develop lucrative businesses and threatened the stability of the specialist services.

*We met our dermatology commissioner once who told us he wanted to reduce referrals to reduce costs. We had to educate him in the need to ensure the right referrals were received, particularly for skin cancer, and suggested more appropriate ways of saving money.* Consultant dermatologist

The policy of Any Qualified Provider (AQP) and periodic tendering is likely to create the biggest changes in dermatology provision in decades. The need for strong commissioning is essential to ensure that the patient pathway through community and specialist dermatology services is seamless, clear and comprehensive. Studies have found that to deliver desirable service reconfiguration, there needs to be ‘strong commissioning’ powers, such as the ability to de-commission, alter provider behaviour, as well as monitor and act on emerging provision issues from patients and staff.

A small study of the early implementation of AQP that was undertaken in mid-2012 found that there was some confusion regarding the degree of freedom available to local commissioners. This, together with tight timescales for implementation, meant that the choice of services for AQP was not always well matched to local needs. Providers felt that the tariff offered in some cases was not enough to provide the service without resulting in reductions in quality. Nonetheless, support for AQP as a method of procurement was widespread, to be used when and if local
commissioners decide that it would be suitable and would bring benefits.218

Almost all respondents to the survey conducted by BAD and The King’s Fund expressed concerns around moving dermatology services into the community either as a shifted outpatient model or as an alternative provider model (either NHS or independent sector). Underpinning this was a concern that commissioners lacked a basic understanding of the patient need for dermatology services. The Association has highlighted cases where commissioners have put dermatology assessment and treatment services out to tender and awarded them to private providers and GPwSI services in the community without ensuring quality, clinical governance, training or links to specialist services. This could lead to the misdiagnosis and mismanagement of patients as well as fragmentation and destabilisation of dermatology services.219

The Association has recently established a process that will allow it to assist members who want to run their own services as part of a social enterprise company or similar vehicle. The objective is to deliver structured and integrated care more cost-effectively. It is important that all the consultants in a department are in agreement and that the trust is part of the initiative so that any surplus funds can be reinvested in the service. The first pilot project is in the initial planning stages.220
6   Options for the future
One of the main themes emerging from the research is the lack of a
suitably trained workforce and consistent service model to work at the top
der end of primary care dermatology, which could ensure that the patients
more suitably diagnosed and treated in primary care remain there, and
are not referred to secondary care.

*GPs usually have a ballpark view of skin disease and try a series of
treatments that may work and won’t harm the patient, which is the
reasonable thing to do. Defining what is complex and what is simple
is difficult. There is a large grey area in the middle. Consultant
dermatologist*

By addressing this ‘complexity gap’ (illustrated in the graph below), it
may reduce the number of patients seen in secondary care and free up
consultants to spend more time on patients with complex skin conditions,
as well as providing mentorship and education to the specialist (nurses
and specialist grade doctors) and GP workforce. Options to address this
gap and to create ‘space’ in the system are discussed in the next section.

*Figure 8: Emerging framework for complexity of skin conditions*
Summary of key options

- New service options and approaches should be designed around both the physical and psychological needs of patients with skin conditions.

- Increasing consultant numbers is an expensive option that has a long lag time and may not address differences in geographical inequity. If overseas doctors are recruited to areas with hard-to-fill vacancies, they and their organisations should be provided with support and mentorship.

- Approaches that encourage self-care and adherence to treatment should be encouraged, such as developing a set of accredited online/video treatment and education tools. Developing the role of the pharmacy should be considered, particularly around education of health advisors and pharmacists on the top five skin conditions and agreement on treatments for these. Also, consideration should be given to moving some common skin treatments to become available over the counter and to the ability of pharmacists to provide repeat prescriptions (e.g. for emollients).

- There is the potential to develop a (consultant-led) intermediary workforce through increasing the number and role of specialist nurses and specialty doctors (including GPs and GPwSIs). A formalised training, accreditation and career development path should underpin specialist nurses and doctors. Succession planning could also be managed more easily with a larger pool of intermediary care specialists. Alongside this, contracts for specialty doctors / locums / GPwSIs / consultants need to be reviewed to ensure that they create the right incentives, as there are currently increasing pay differentials.

- Education of GPs in dermatology is a critical issue, and preferred approaches include:
  - compulsory undergraduate training in dermatology
  - competencies and training linked to the GP revalidation system
  - training and education from GP peers
  - promotion of existing e-learning training packages and resources for the most commonly seen skin problems
  - greater GP confidence in diagnosis of pigmented lesions through developing skills and knowledge (of which dermatoscopy could be a component)
  - teledermatology to open a dialogue between primary and secondary care; and enabled knowledge and education transfer.

- Hub and spoke models of care are a preferred option of dermatologist consultants – retaining specialist dermatology services in a central unit under the leadership of dermatology consultants, but providing local consultant-led clinics. There also appear to be further opportunities to centralise specialist dermatology services.

- Developing consultant-supervised ‘skin lesion centres’ that covered large populations and pulled all skin lesion referrals together in specialist centres could improve quality, efficiencies, audit and clinical governance. Training other specialists to undertake diagnosis and
treatment could also be considered, freeing up consultant time.
• Self-referral should be considered for patients with chronic skin conditions.

**Approaches to improving self-care**

Building on the already high self-treatment rates, increasing the number of patients who self-care would reduce the demand on dermatology services. However, alongside this, there is a need to promote patient education and services that support patients making an accurate self-diagnosis and knowing when to seek medical advice.

There is scope to link the British Association of Dermatologists’ patient information leaflets to more commonly used websites such as Patient UK and NHS Choices (particularly by GPs), because many of the rarer forms of skin disease have little or no information on these sites.

Further, 10% of respondents to the survey conducted by BAD and The King’s Fund also called for improved patient educational material to “encourage patients to take some responsibility for looking after their skin” (consultant dermatologist). One respondent, a consultant dermatologist, also thought there would be benefit in improving the availability of patient information by “… providing educational videos, apps or tweets on moles, acne, melanoma – skin complaints which typically affect the younger, social media-literate population (consultant dermatologist).

A study on self-care educational interventions found that they can reduce the number of visits to see a doctor by between 17% and 35%. Written communications emphasising personal decision-making about the use of medical care were particularly effective.221

A recent study found that mobile dermatology applications may help people learn about UV rays or keep tabs on their moles, but they are not a substitute for seeing a doctor. The study searched online stores and found over 200 apps, half made for non-doctors; these included sunscreen recommendation guides, mole photo storage apps, and tools meant to help diagnose melanoma.222

Workshop participants thought there would be value in the Association developing a set of online tools for patients on how to use treatments effectively (e.g. similar to the useful YouTube clips on using inhalers, and walking up and down stairs on crutches), as well as clips of the nurse-led support/education groups.

**Over-the-counter treatments**

Many of the interviewees and workshop participants thought that pharmacists and health advisors in pharmacies were an untapped
resource that could be used more effectively to support patients with skin conditions.

Pharmacies could play an increasing role in signposting patients to information, treatment and to further health care advice if needed. This is particularly important as many patients with chronic skin conditions (like psoriasis) ‘drop out’ of primary care and specialist care services and seek treatment themselves (workshop participants thought that 85% of psoriasis patients have periods of self-treating). Linked to this was the option of moving tar preparations, topical steroids and acne medications to over-the-counter treatments to further encourage self-care. Training and accreditation of pharmacists would be essential for a service like this.

During the workshop discussion it became clear that a mismatch exists between what pharmacists (and pharmacy health care advisors) are advised to provide to patients in relation to common skin conditions and what dermatologists would recommend. Although retail incentives may have some impact on which treatments are recommended, this is an area in which the BAD and pharmaceutical industry could come together to improve the advice and treatments recommended to patients. This would benefit patients and the pharmacies alike, as patients would be more likely to return and trust the pharmacists’ advice if their self-treatment was successful.

Workshop participants thought that if the Association made links with the main pharmaceutical companies, a significant proportion of pharmacists could be reached due to the rotation of pharmacists through units (e.g. Boots can reach 10,000 pharmacists through alliance relationships). An online module was thought to be the most effective way of reaching pharmacists and health care advisors. However, as many large companies have links to one online medical resource (e.g. Boots with WebMD, where skin is the second most searched-for topic), this should be considered when developing online resources.

In Scotland, there is a minor ailments service through pharmacies; this is an NHS service for people, including children, who do not pay prescription charges. It means that the pharmacist can prescribe medication without the patient having to see their GP to get a prescription. In terms of skin conditions, patients can get medication for acne, athlete's foot, cold sores, eczema and allergies, and warts and verrucae. This service was discussed at the workshop, as was the possibility of extending its role to include per person budgets for chronic skin conditions.

Shared decision-making and adherence
Health care professionals should actively encourage patients to be involved in their therapy. This is particularly relevant to patients who suffer from long-term skin conditions, who usually become experts in
treatment and management of their condition. One of the major failings in current service provision is the failure to acknowledge this expertise. Improving the doctor–patient relationship through encouraging shared decision-making is likely to improve adherence; this is an approach where clinicians and patients make decisions together using the best available evidence. Patients are encouraged to think about the available screening, treatment, or management options, and the likely benefits and harms of each so that they can communicate their preferences and help select the best course of action for them. Shared decision-making respects patient autonomy and promotes patient engagement. At least three conditions must be in place for shared decision-making to become part of mainstream clinical practice: ready access to evidence-based information about treatment options; guidance on how to weigh up the pros and cons of different options; and a supportive clinical culture that facilitates patient engagement.

**Approaches to improving dermatology primary care**

Interviewees and workshop participants agreed that dermatology should be a compulsory component of undergraduate medical education; this should be provided by dermatology specialists rather than on community attachment (where students risk being taught by GPs who themselves have limited dermatology training).

Education of GPs in the main health conditions that they see (such as dermatology, diabetes, mental health and so on) should form the basis of their CPD. Half of respondents to the survey conducted by BAD and The King’s Fund felt that GP dermatology training was inadequate and can result in poor diagnosis, unnecessary referrals, and poor treatment of patients with skin conditions in primary care. Over 20% of respondents wanted improved GP training, many of whom suggested a mandatory dermatology placement for trainee GPs and mandatory ongoing training for qualified GPs on the common skin diseases. Several respondents believed that educating GPs on common skin conditions would be a more valuable use of their time compared to training GPs to become specialists in dermatology.

Workshop participants discussed the importance of education spanning both diagnosis and treatment of skin conditions – reflecting that sometimes a GP can make an accurate diagnosis, but fail to prescribe / treat the condition appropriately.

It was thought that peer-to-peer education would be the most effective way of teaching GPs what is most useful in primary care and anticipate the educational needs of GPs. Workshop participants supported the option of establishing more GPs with extended training in dermatology, perhaps
one per (future federated) group of GP practices. However, there was concern that these roles may de-skill the core skills of GPs – particularly as the role of the dermatology GPwSI was not also focused on education and training of other GPs. The Chesterfield case study below provides an interesting model that uses ‘GP champions’ to disseminate education to GPs.

**Box 3**

**Chesterfield: GPs’ engagement, training and education in dermatology**

Chesterfield Royal Hospital NHS Foundation Trust covers a population of 350,000 to 450,000 across North Derbyshire, South Yorkshire, North Trent, North East Lincolnshire, East Cheshire and North East Staffordshire. The dermatology service is commissioned by four main CCGs with others utilising the service due to low waiting times.

The dermatology specialist team comprises of:

- three consultants and one associate specialist but no regular SpRs or foundation trainees
- two nurse practitioners (one for skin cancer and the other for inflammatory skin disease)
- eight nurses, four health care assistants
- between five and ten GPs interested in dermatology.

**Core group of GPs**

Chesterfield has formed a core group of GPs trained by dermatologists who will then:

- teach other GPs
- create a bond with secondary and tertiary care dermatologists
- develop guidelines and protocols for management of common skin diseases in the community – e.g. eczema, acne, actinic keratosis
- run community dermatology clinics with no consultant supervision (only those who have more than 10 years’ experience).

There are GP training placements of one to two years in general dermatology, with GPs attending one to two clinics per week (if GPs do not have the diploma in dermatology they are encouraged to sit it during this placement).

There is a once-a-month teaching clinic where GPs bring in between five and eight patients, which they found challenging (this clinic is attended by all interested GPs; each GP on average attends more than six such clinics per year).

GPs interested in dermatology can apply to have a training placement of one to two years in skin surgery and one clinic per month of cases selected by the GP. The GP dermatology trainee attends the skin cancer
multidisciplinary (MDT) and regional skin cancer meetings.

**GP champions programme**
The GP champions programme started two years ago and is receiving growing interest among GPs. Each practice in the catchment area nominates a dermatology GP champion who undergoes a teaching programme. The teaching programme consists of six teaching evenings (6pm–8pm) over a year. Topics are decided by the core group of GPs trained by dermatologists, and delivered by these GPs (supervised by a consultant dermatologist). Dermatology GP champions must attend between four and six training sessions per year and are expected to dissipate the knowledge gained to their practice partners.

**GP trainees**
There are GP registrar Independent Learning Directive placements in dermatology; the GP registrar attends two to three days a week in dermatology for four months.

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Up-skilling all GPs was not thought to be viable due to the resources and time needed. Instead, the approach could be based on GP rotations into dermatology departments – starting with those from practices making the most referrals. In this model, a GP would sit in an intermediary service clinic once a month for six months and develop their skills and knowledge of dermatology. They would then filter this knowledge back to their practice. After the six months, the placement would rotate to the next practice. The proposal to commissioners would be around supporting GP back-fill to enable a reduction in referrals and increased management of skin conditions in primary care, as well as filtering education back, and this model would facilitate improved dialogue across primary and secondary care.

Using the specialty doctor grade to educate these GPs was also discussed at the workshop; one option suggested was to develop a masterclass model with GPs, where the specialty doctors (or consultant) see 15 patients with common skin conditions and talk through diagnosis and treatment options.

This type of model was the preferred approach outlined at the workshop; however, evidence also suggests that approaches that encourage peer review among GPs and feedback from consultants can be particularly
effective in improving practice.\textsuperscript{226} Evidence suggests that mechanisms and incentives for improving communication between GPs and specialists should be explored. Good clinical relationships facilitate information exchange, provide learning opportunities, and underpin high-quality diagnosis and referral. Good relationships may also make it easier for GPs to seek informal advice, reducing the need to make formal referrals and avoiding duplication of tests.\textsuperscript{227}

A Cochrane systematic review published in 2005 assessed the effects of a range of interventions to improve the quality of referrals from primary to secondary care across all specialties. Of all interventions considered, active local educational interventions involving secondary care specialists and structured referral sheets were most likely to provide a positive impact on the quality of referrals.\textsuperscript{228} This is supported by a study that found there was a marked variation in the frequency of referrals between practices – reflecting, in part, inadequate training of GPs in the management of psoriasis; dissemination of guidelines on the management of psoriasis in primary care was found to significantly enhance the appropriateness of referral of patients to secondary care (there was no added advantage from holding training sessions).\textsuperscript{229}

A study published in 2000 evaluated the impact of the implementation of clinically led dermatology guidelines on appropriateness of referrals to a dermatology department in the south of England. Appropriateness in this context did not relate to diagnostic accuracy, but to whether the referral was necessary or whether the correct treatment had been given prior to referral. The study showed that the percentage of appropriateness of total referrals increased from 57\% to 80\% immediately after the introduction of the referral guidelines initiative. However, this was not sustained two years later, when the rate of appropriateness of referral had fallen to the same level as before the study. The authors concluded that in order to maintain the benefits of referral guidelines initiatives, ongoing training and education are required.\textsuperscript{230}

Referral guidelines in dermatology are not new; a BAD survey more than 10 years ago suggested that nearly half the dermatology departments in the country had published advice on referral guidelines for GPs in recent years. A smaller proportion had also produced guidelines to help GPs in diagnosing and treating common skin conditions in primary care. Some of these guidelines gave examples or lists of conditions that are seen as generally being inappropriate for referral to secondary care.\textsuperscript{231}

This leads to the question of why existing guidelines are not being adhered to. One reason outlined in the ‘Action on Dermatology’ guidance was that while some of these guidelines have been produced jointly by consultants and GPs, a significant proportion have been produced by consultants alone, with little or no input from GPs. Such an approach
severely reduces their potential impact and benefit. Views on the value of both treatment and referral guidelines vary widely, and there are practical difficulties in keeping them up to date and easily accessible by GPs. However, the process of developing guidelines can prove very useful in establishing agreement about how services should be provided and used.\textsuperscript{232}

The British Association of Dermatologists and Cancer Research UK recently co-created an online educational tool to help GPs identify red flag skin cancer signs and symptoms in a project funded by the Department of Health. The GP skin cancer recognition toolkit launched nationally in July 2012 and is currently on Doctors.net.uk. The online tool includes the following resources:

- Referral decision aid – this illustrates the clinical red flags that warrant prompt referral to skin cancer services under the two-week wait rule.
- Lesion recognition resource – this enables GPs to browse images and descriptions of different types of cancerous, pre-cancerous and associated lesions, and to view referral guidelines.
- Accredited educational quiz – for GPs to test their knowledge of skin cancer in primary care and compare it against their peers.
- Patient case studies – real-life clinical scenarios and learning points.
- Resources – links to other key sources of information, including further training details and resources for patients.

In 2012, the site had 13,291 views, making it the most successful campaign of Doctors.net.uk, who hosted the toolkit during its pilot and national roll-out phases. Feedback was very positive: 91% of first-time users said they would use the toolkit again, 82.6% of those surveyed rated the toolkit as useful or very useful, and 64% of GPs said using the toolkit has changed their practice.\textsuperscript{233}

The Association has also developed an online learning package with HEE e-Learning for Healthcare, called ‘e-dermatology’, which focuses on the diagnosis and management of common dermatological disorders. Initially designed for trainees, it is now also available, free of charge, to all clinicians working in the NHS and all members of the British Dermatological Nursing Group (BDNG) in the UK. The package is based on the Joint Royal Colleges of Physicians Training Board curriculum for specialist training in dermatology.\textsuperscript{234}

**Improving prescribing variation**

A National Audit Office study found that GP prescribing behaviour is influenced by many factors, which operate at different levels in the health care system. At the national or international levels, clear evidence on treatments and drugs presented in authoritative journals was a significant influence. At the PCT level, influences included local guidelines, newsletters, site visits by prescribing advisers, personalised contacts, and
recommendations from specialists or consultants in the secondary health care setting. At the practice level, the following may influence prescribing behaviour: the professional experience of the GP; the clinical needs of the patient; patient demand; peer networks; and drug company representatives. It was found that initiatives which could be carried out at the PCT or practice level would be most effective in reducing prescribing variation.235

Technology options in primary care

Teledermatology
Teledermatology was discussed in most of the stakeholder interviews and in many of the survey responses; it was used to try to achieve different aims:
• as a triage / referral management tool
• as an education and communication tool (obtaining advice and guidance)
• as a substitute to an outpatient appointment (particularly for patients in rural or remote areas).

The platform used for teledermatology may be developed in-house, use the Choose and Book system, or be commissioned through a private provider.

With teledermatology, due consideration also needs to be given to: setting up the IT infrastructure; GP engagement and ongoing communication to promote the service; tariff negotiation; incorporation into consultant job plans; data protection and patient consent; and ongoing clinical audit of the service. This all requires time, commitment and enthusiasm – technology solutions are not necessarily a ‘quick fix’; they must be underpinned by effective support systems and clinical engagement.

The key principle guiding a referral to teledermatology should be “Would you have referred if the teledermatology service was not available?”

The following case study of the teledermatology service provided by Royal Devon and Exeter NHS Foundation Trust (see box) describes the advantages of the service and key factors in its success, as well as addressing some of the common myths around such services.

Box 4
Royal Devon and Exeter NHS Foundation Trust
Choose and Book teledermatology service
Since 2011, a consultant-led teledermatology service has been run by the dermatology department at the Royal Devon and Exeter NHS Foundation
Trust (RD&E) to provide rapid access to diagnosis and management advice for local GPs using the ‘Advice and Guidance’ arm of Choose and Book. Details of the service, including consent forms and photography advice, are available online to GPs through the RD&E dermatology website.  

The service was established to address the growing demand for dermatology referrals, and to provide specialist advice to more rural and remote practices. As part of the integrated primary and secondary care NHS service for patients with skin disease in Devon (including accredited GPwSIs), the teledermatology service helps triage patients to the most appropriate local skin services, so they are seen sooner in their patient pathway by health providers with the appropriate level of dermatological skills, thus minimising patient travel, waiting times and NHS costs.

"There are a lot of misconceptions surrounding teledermatology, including concerns among some dermatologists that it may lead to diagnostic error, or out-sourcing of services to remote private providers. Similarly, commissioners may be under the misconception that teledermatology is a cheap alternative to face-to-face referral for the majority of patients with skin disease, whereas in fact it can never replace a consultant-led outpatient dermatology service, but can supplement it.

In our experience, teledermatology works most effectively if the service is provided by local consultant dermatologists who are familiar with local patient pathways and services.

Teledermatology can be readily implemented using existing NHS systems without the need for private providers, with recent UK teledermatology guidelines giving clear guidance on standards for the development of services.

The ability to provide rapid consultant advice to patients closer to home can reduce the need for secondary care referral, freeing up outpatient services for patients requiring specialist dermatological services, and triaging patients who do need additional dermatological care to the correct clinic or surgical list.

Furthermore, with turnaround times of 2–3 days, teledermatology can provide very effective educational feedback to GPs, with the potential to widely improve dermatological skills among community health care professionals in the future. We are continuing to review patient outcomes and GP satisfaction to improve our own service, but also to enable other dermatology services to learn from our implementation.” Dr Carolyn Charman, Consultant Dermatologist, Royal Devon and Exeter NHS

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4Royal Devon and Exeter NHS Foundation Trust Website, ‘Dermatology - Information for GPs’. Available at: www.rdehospital.nhs.uk/patients/services/dermatology/info_GP.html (accessed 5 December 2013)
Advantages of the service

- Significantly reduced tariff per teledermatology case (£45 per case) compared to face-to-face outpatient referral.
- Good use of limited consultant resources; 30 teledermatology cases = 1 PA in consultant job plan, with no clinic room or nurse overhead costs, and little secretarial input required.
- Rapid access to consultant dermatologist advice – average turnaround of 2 days (maximum 3 working days), compared to the average wait for a routine new outpatient appointment of 4–8 weeks.
- Providing dermatological care closer to home and addressing the burden of skin disease in the community; 66% of patients selected for referral by the teledermatology route can be managed in the community with advice and guidance.
- Patients with non-melanoma skin cancer can be triaged directly onto a skin surgery list, with significant tariff savings and more efficient patient pathways, especially for elderly patients travelling long distances.
- Rapid dermatology educational feedback to improve dermatological knowledge in general practice, with the ability to attach electronic patient advice sheets or guidelines (e.g. from BAD) to teledermatology replies.
- Patient images (consented) can be used for dermatology educational feedback sessions to GPs, dermatology trainees and other health care professionals.
- The service is compliant with recently published UK Quality Standards for Teledermatology developed by the Department of Health and published by Primary Care Commissioning.

Critical success factors to implementation

- Consultant enthusiasm for setting up the service.
- Close collaboration with other secondary care services (medical photography, IT services, referral management services, Choose and Book team) and primary care services (commissioners, IT services, local GPs).
- Tariff negotiation and incorporation into consultant job plans.
- GP engagement in the service was initially promoted by temporary secondment of a Senior Information Specialist from the Delivery Directorate of the PCT, who visited practices to promote use of the Choose and Book Advice and Guidance (A&G) Service (A&G also being promoted locally for other specialties, including paediatrics and urology).
- Ongoing links with clinical commissioning group IT services who provide monthly reports on teledermatology referrals per practice,
response times, and number of patients requiring onward referral to secondary care or community GP with a Special Interest (GPSI) services.

- Annual audit of service referrals, patient outcomes and GP satisfaction.
- Future audit of the impact of teledermatology on the number of GP referrals to secondary care (the effect of individual GP education is expected to take at least 2 years to impact on overall referral rate from primary care).

Review of first 1,000 teledermatology referrals
The dermatology department has received more than 1,500 teledermatology referrals to date. Referral rates have continued to rise, with an average of approximately 60–90 referrals a month.

Analysis of six-month patient outcome data on the first 1,000 teledermatology referrals shows that:
- 60% are managed in the GP surgery following teledermatology referral (not referred to the Exeter dermatology department or GPwSI service in the six-month period following teledermatology).
- 6% are referred to community dermatology services (GPwSI clinics).
- 22% are seen in the dermatology clinic at the RD&E within 6 months of their teledermatology referral.
- 12% of patients are triaged directly for skin surgery (mainly patients with basal cell carcinomas on high-risk sites).

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Suitability of patients for teledermatology
Interviewees and some survey respondents thought that teledermatology would only be suitable in a limited number of cases because pictures of skin conditions were not usually of good enough quality and a detailed history was often required to enable accurate diagnosis.

Teledermoscopy could be useful in preventing referrals, but if GPs are to undertake this, then having the right equipment and training is essential.²³⁶

Also, and more importantly, some chronic conditions can have severe psychological impacts, and to ask patients to unclothe and have a photo taken would be inappropriate.

*Teledermatology works well for some conditions, but I want to see the whites of my clinician’s eyes. And for a chronic skin condition, the idea of asking a patient to strip down and have a photo taken of their skin is abhorrent. Many patients with a
chronic skin condition have a very low body image, so to ask them to have themselves photographed is awful. Patient representative

Referral management / triage
Some workshop participants thought that referral screening tools should only be used if enough referrals are run through the referral imaging system and result in reduced outpatient appointments to offset consultant time taken to review them (or it acts as an alternative consultation system for remote areas). The system also needs to be fully embedded, otherwise it runs the risk of being additional (albeit complementary) rather than substitutive.

West Hertfordshire NHS Trust piloted the use of teledermatology to triage referrals, including skin lesions, over a six-month period, covering 110 referrals. It concluded that no melanomas were missed by using the teledermatology triage, and 30%–50% of all two-week wait referrals could be triaged to other non-urgent pathways.

Workshop participants are increasingly turning to teledermatology as a referral management tool; although it involved a “steep learning curve”, some consultants believe that this is the only effective way of triaging increasing numbers of referrals. One participant stated that 55% of skin lesion teledermatology referrals (with dermatoscope image attached) are discharged without consultation, 30% placed directly onto a surgical list, and 15% seen in clinic.

Educational value
One study in the Netherlands of 89 cases emailed by GPs (including images and patient information) to dermatologists for advice and guidance found that the time taken was not overly burdensome, and that 63% of the teleconsultations were of educational value to the GP.

Preventing the need for a physical appointment (particularly for rural / remote areas)
Teledermatology is often cited as an option to reduce physical referrals, particularly for patients in remote areas.

Research studies seem to have centred on the establishment of a separate electronic system to send images compared to the paper-based referral system (i.e. pre-dating Choose and Book). Teledermatology may be a useful triage tool for geographically remote areas as part of an integrated consultant-led team subject to full clinical governance; there are some studies that question the value of teledermatology in reducing referrals. A multi-centre randomised controlled trial comparing real-time teledermatology with conventional outpatient dermatological care found
no major differences between the two in terms of reported clinical outcomes: 240

- Of patients randomised to teledermatology, 54% were managed within primary care and 46% required at least one hospital appointment.
- Of patients randomised to the conventional hospital outpatient consultation:
  - 45% required at least one further hospital appointment
  - 15% required general practice review
  - 39% did not require follow-up visits
- Clinical records showed that 41% of patients seen by teledermatology attended subsequent hospital appointments, compared with 40% of patients seen conventionally.
- The net cost of the initial consultation was £132.10 per patient for teledermatology and £48.73 for conventional consultation.

More recently, in the Netherlands, it was found that teledermatology can prevent up to 68% of referrals; quick response times seemed to be important to achieving this (the average response was just over 4½ hours), and GPs reported that the process had educational value. There was also found to be a long-term effect of reducing referrals (as GP capability and confidence in dermatology improves from the educational component of teledermatology). Overall service costs also reduced by between 20% and 40%. 241

The use of a nurse-led teledermatology service was piloted in Devon; 500 patients were assessed by suitably trained nurses in community settings and the referral, accompanied by a digital image, was sent to the dermatology unit. Of the 500 referrals received, 42% were referred back to the GP with a management plan, 28% were triaged and booked directly on to a skin surgery list, and the remaining 30% were seen in the outpatient clinic. It is important to note that there was a 20% increase in referrals during the study period. 242

One of the larger teledermatology services is in Exeter; this uses the Choose and Book service and has received more than 1,000 referrals, with the referral rate continuing to rise. The service receives local referrals for any form of skin disease, with the exception of pigmented lesions. The average turnaround time is two days, and a locally agreed tariff is currently set at £45 per case. The service has found that 10% of referrals are booked directly for skin surgery, 19% require face-to-face review in clinic, and 71% are managed in the community with advice and guidance. Dermatologists have found that the service offers the opportunity to improve dermatological care in the community, provide rapid feedback and education to GPs, and triage patients to appropriate locally available services. 243
Some dermatologists are starting to use Kinesis; this is a web-based application that facilitates clinical dialogue between GPs and consultants to manage patients in the community and provide education and advice to GPs.\textsuperscript{244}

It should be noted that referral improvement initiatives also often result in increases in referrals, and if alternative referral screening tools are used (e.g. teledermatology or Kinesis) then a critical mass of referrals is needed to ensure shifts in workload (e.g. one clinic a week no longer required due to time saved screening and signposting referrals to treatment in primary care).

**Use of dermatoscopy in primary care**
Greater use of dermatoscopy in primary care, perhaps one GP trained in each practice, could enable more effective diagnosis in primary care. Several stakeholder interviewees suggested the use of more dermatoscopes in primary care – suggesting that each medium to large size practice should have a dermatoscope and someone trained in using it.

*Some of our practices have dermatoscopes that support accurate diagnosis, but the training has to be there if GPs are to use these and not miss cancers.* Consultant dermatologist

*If one GP in a practice was properly trained in using a dermatoscope, it would reduce referrals.* GPwSI

In the Netherlands, the use of teledermoscopy is being promoted, particularly as 30\%–50\% of all dermatological referrals are for pigmented skin disorders and thus not suited for regular teledermatology. If GPs are to undertake this, then having the right equipment and training is essential.\textsuperscript{245}

However, some GPs were resistant about purchasing and being trained in using dermatoscopes when they were unable to undertake the next step of excising skin lesions.

*I don’t see the point in getting a dermatoscope and being trained in its use unless I can use the additional knowledge the dermatoscope gives me and can undertake the minor surgery.* GP

**Discussion on consultant workforce numbers**
The Royal College of Physicians (RCP) suggests that hospital-based services require at least one full-time equivalent consultant dermatologist per 62,500 population (see Appendix A for details of how this figure was arrived at).\textsuperscript{246} Current professional norms argue for more dermatology consultants; over 50\% of respondents to the survey conducted by BAD
and The King’s Fund felt that there were not enough consultant dermatologists, resulting in poor patient care and a stressed specialist care sector. A lack of sub-specialists, particularly in paediatrics, was also flagged by 10% of respondents.

Using the RCP recommendations, for a population of 61.8 million, the UK workforce requirement for a consultant-led dermatology service would suggest a minimum of 989 FTE dermatologists. This would indicate a shortfall of more than 250 FTE dermatology consultants.\textsuperscript{247}

Increasing the number of consultants is not an option that could be implemented within a year or two, due to the time lag involved in training specialists. There would also be increased costs associated with training, salaries and pensions. In addition, it has been found that increasing the number of consultants can actually increase demand.

There is also no guarantee that new consultants would choose to work in geographical areas that have a high number of consultant vacancies, such as the North East.

Some areas have used overseas doctors to successfully fill vacancies in the specialist workforce; however, this was not thought to be an easy option as there were training and cultural differences that meant intensive support and mentoring was essential to ensure that overseas doctors were able to integrate into the service and become valuable team members.

\textit{Clinicians from Eastern Europe are keen to come and stay, but there are training and cultural difficulties (particularly around informed consent). You need to embrace these doctors and mentor them. But the recruitment overseas isn’t supported and our brilliant Eastern European clinician who has been with us for years can’t even be a full member of the BAD, whereas they should be getting her to speak on national platforms. Consultant dermatologist}

\textbf{Utilising dermatologists more efficiently}

One of the main ways to use consultants more efficiently is to improve the case-mix of patients they see, so that they see fewer patients who do not necessarily need to see a consultant. As discussed, many of the referrals to specialist care could be dealt with in primary care (approximately 21%), particularly as many referrals are made to obtain a diagnosis for common skin conditions. Based on the assumption that a new outpatient appointment takes 30 minutes of a consultant’s time (including the appointment and correspondence back to the GP), this extrapolates to 53 years of a consultant’s time on new patient referrals that could have been managed in primary care. Effectively, 53 FTE consultants a year could be freed up.
Another way to increase the amount of time consultants have available for patients is to improve the efficiency of the work flow, particularly through outpatient clinics. Many of the consultant dermatologists who responded to the survey conducted by BAD and The King’s Fund in July 2013 felt that their time could be used more efficiently.

...efficiency could be increased through: better IT case notes; use of preliminary information for patients; efficient prescribing; efficient consent; IT being faster not slower than paper systems; and improved training. Consultant dermatologist

Several consultants commented on the lack of admin support:
...in our department, consultants are appallingly under-supported in terms of admin support, meaning that a ridiculous amount of time is spent doing admin which should be being done by a PA or equivalent. Consultant dermatologist

One consultant dermatologist commented on the value of health care assistants (HCAs) in supporting an efficient patient flow through outpatients:

All clinics have an HCA with the consultant, which enables the clinics to run smoothly and efficiently. There have been challenges from the trust management team to remove the HCAs but we performed a time and motion audit, which demonstrated the benefit, and we have been able to retain them.

Using current consultants more efficiently would be a relatively low-cost solution to increase capacity, although other solutions are likely to be needed alongside this to meet demand and address the capability gap in primary care.

It should also be noted that changing systems, work patterns and roles is inherently difficult and takes time, leadership and effective management. There is also the specific issue of financial disincentives in the system in relation to the value placed on different staff.

Developing the numbers and roles of other specialist team members
Up-skilling other staff members and using them differently is one option for reducing costs and addressing the issue of too few consultants. It is usually easier, quicker and more effective for staff to acquire specialist competencies than for teams to acquire specialist staff.²⁴⁸,²⁴⁹,²⁵⁰
A critical precondition for the successful implementation of workforce redesign is clarity about roles and responsibilities. In addition, when new roles are created, there has to be a critical mass of activities shifted to the new role to ensure that there is a real change in the number of staff needed to deliver services; otherwise, the new role will simply run alongside the existing roles, causing an increase in overall workforce costs. For example, where the GPwSI role has worked well, they often undertake specialist clinics in the community and secondary care, where they are fully integrated into the specialist team – something the consultant would otherwise have done.

It should also be noted that using fewer senior staff can sometimes be a false economy. Survey respondents suggested that early accurate diagnosis from a consultant is more likely to save overall costs, as patients can have multiple GP consultations before finally being referred to a consultant and obtaining the right diagnosis. Studies in other specialties (emergency care) that rely on good first-time diagnosis also promote the use of early senior review for assessment and establishment of treatment plans.

**Specialist nurses**

*Nurses are very important, and we should be training them to a high level. We hope nurses will develop competencies in a structured way and take on parallel roles, and that will help with the interface with primary and secondary care. Also, you can train a consultant nurse in a faster period of time than a doctor. Consultant dermatologist*

Workshop participants thought that specialist nurses working within clear protocols can (and already do in some areas) play an invaluable role in freeing up consultant time. Examples include:

- running group education sessions, where approximately 10 patients (or parents and children) are brought together after diagnosis for practical education and to create a network of support of patients (e.g. groups for acne, childhood eczema, psoriasis). GPs, specialty doctors and consultants could refer direct to these groups. Models of group education seem to work best when run by a specialist dermatology nurse who can answer questions that arise from patients with often complex skin conditions; models that tried to cascade learning to general community nurses were not usually successful
- nurse-led follow-up telephone clinics
- drug monitoring clinics (e.g. isotretinoin)
- nurse-led clinics underpinned by nurse prescribing for common skin treatments.
Stakeholder interviewees had a divergence of views around increasing the role of specialist nurses and the capability of nurses, which needs to be addressed if this option is taken forward in the future.

There is also the challenge of recruitment and succession planning around the specialist nurse roles, as discussed previously.

**Specialty doctors**

Specialty doctors are a significant component of the workforce and tapping into their latent energy is potentially a powerful agent for change and innovation. In one study, 47\% of specialty doctors indicated that they would like to increase their clinical activity and 72\% said they would be interested in a new role working across acute/community, primary/secondary settings. For example, specialty doctors could play a role in improving the communication with primary care and support the education and training of generic primary care health workers.

Specialty doctors could also provide high-level primary care /low-level secondary care dermatology services. This intermediary service could fill the current gap in primary care and shift many of the referrals from secondary care that do not necessarily have to be seen by a consultant. One interviewee suggested that specialty doctors could come internally from trainees, GPs or the current GPwSI.

Other suggestions included that all GPwSIs should be moved onto specialty doctor contracts and that the specialist dermatology service should recruit and train GPs to undertake the specialty doctor role.

This option would need to be underpinned by developing formal training and education, and shifting perceptions about the value of the workforce, reflecting this in amended specialty doctor contracts.

This approach would also mean that the specialist workforce was all under one service, and addresses the issues around service integration and succession planning.

*You may have to train GPs to fulfil the role of a general dermatologist, as you can’t produce a lot of specialists suddenly.*  
Consultant dermatologist

*What we need is for the acute trust to employ GPs, which we have done a bit, and it results in a better patient pathway and better service integration. We employ a number of GPs and this has really improved the interface between primary and secondary care. The vertical integration has improved education and training of GPs, as the ones in specialist care take back the learning to primary care.*  
Consultant dermatologist
Offer specialty doctor posts – these are attractive to GPs and female colleagues who want to work part-time. These posts could support a hub–spoke model, and offer remote clinics. Consultant dermatologist

Dermatologists could be fast-tracked into training, skipping a lot of the general medical training. I haven’t used my general medical training in 20 years. Consultant dermatologist

We need a flexible route into specialist dermatology and relax our pre-conceptions. The specialty doctors are a way to plug the vacuum in primary care. But there is no structured training for these clinicians. There need to be annual reviews and assessments, and some better ones could develop into consultants on Article 14. It is an alternative model of training; some consultants are against this as they are wedded to the register. Specialty doctors are really important to the workforce. Consultant dermatologist

Specialty doctors are keen on dermatology but don’t fit [the standard career path] of dermatologist. We need to formalise this route, but all the people in power have gone through the traditional consultant training route. This bunch of specialty doctors are valuable, we have seven here. My colleague became a consultant through this route, and is great at training. Slightly different from the concept of what a consultant should be. Consultant dermatologist

There is a big and important bit of work in the lower end of secondary care where we need people in consulting rooms seeing patients, who don’t have to be heavily involved in research or admin. A lot of the specialty doctors want to work ‘x’ number of hours a week, seeing patients and maybe doing a bit of teaching. But we need to value them as they are good at what they do and they free up others who have gone through the whole consultant training to do the higher end of specialist care. Consultant dermatologist

The dermatology model in Sussex (see box) provides an interesting example, using different team members to make limited consultant resource go further; it also provides an example of ‘hub’ community clinics.

**Box 5**

**Sussex Community Dermatology Service**

Sussex Community Dermatology Service was established in 2010 to provide community dermatology services as part of the Care Closer to Home policy. The service is consultant-led and sees all new patient dermatology referrals,
excluding those with suspected squamous cell carcinoma or malignant melanoma and severe life-threatening dermatosis.

The team consists of 5 CCST-accredited consultant dermatologists, 28 GPwSI doctors and 6 specialist dermatology nurses across 15 community locations based in community hospitals and GP surgeries. At each location, joint clinics are run by a team consisting of a consultant, 2 to 3 GPwSIs, and specialist nurses.

Services include patient access to one-stop diagnostic biopsies, one-stop skin cancer surgery, patch-testing, skin-prick testing, and photodynamic therapy. There is selective triage of referrals of patients to consultant clinics, joint consultant–GPwSI clinics, medical GPwSI clinics, and surgical GPwSI clinics. This results in patients being seen efficiently by the right person with the appropriate skills.

**Critical success factors**

1. There is a focus on teamworking and valuing each other’s skills and experience. There are also high levels of trust in the skills of the GPwSIs and specialist nurses.

2. There is good teamworking between consultant dermatologists and GPwSI doctors, allowing patients to be seen with an immediate expert opinion on hand when required. This improves triage and diagnostic accuracy, reduces the need for unnecessary investigations, and ensures that patients are started on the right pathway of care, and that services are supervised by a senior clinician.

3. Having a flexible medical and nursing workforce allows the service to respond to demand and capacity changes. Furthermore, the 5 consultant dermatologists have an interest in skin cancer and skin cancer surgery, enabling an efficient one-stop surgical service to be maintained.

4. One of the key determinants of success has been to develop a community-based cancer tariff that supports consultant-led surgery and one-stop care for patients. The National Tariff for Dermatology is based on a secondary care model of care and does not represent a realistic surgical outpatient tariff for skin cancer. This makes it difficult to provide services in any outpatient setting. Day case surgical fees are set at unrealistically high levels for relatively simple cancer surgery, which accounts for 90% of surgery required.

5. An electronic patient record (EPR) allows improved access to GP referral information, investigation results and record-keeping, and also improves clinic efficiency through the ability to record information quickly and effectively. The EPR facilitates work from multiple locations, allowing all patients to be seen locally, and is web-based. The patient record links into the national patient record system and is securely provided through the NHS N3 connections at each location.

6. There is a dedicated ‘dermatology’ administration team to support patient and GP helplines; the team also enables the clinicians to focus more time on direct patient care.

**Benefits / advantages**

- **Patient access:** Patients benefit from local access to a specialist opinion in community locations. There is also a patient helpline, which offers rapid access to advice on any concerns or queries.

- **GP access:** There is GP access through a GP hotline for referrals, where GPs
can access advice and guidance.

- **Short waiting times for patients:** The community dermatology service has been operational for 4 years and seen more than 27,000 new referrals with an average waiting time of 3.7 weeks and a maximum wait of 6 weeks achieved consistently throughout this period. This compares with a 10-week wait for first new patient appointments in local secondary care services.

- **High rates of one-stop surgery for skin lesions:** Over 90% of patients seen have received skin cancer surgery within 8 weeks of referral. Up to 60% receive surgery on the same day of the first consultation (this compares with only 10%–15% receiving one-stop surgery through local secondary care services).

- **High rates of patient satisfaction:** Surveys show high rates of patient satisfaction with the service, achieved with no serious incidents and an extremely low complaint record.

- **Low onward referral:** The consultant-led service increases diagnostic accuracy, provides effective treatment, and ensures appropriate follow-up of patients. With the involvement of consultant dermatologists within the service, 90%–92% of all referrals are managed within community clinics. Onward referrals are typically made for phototherapy (2%), squamous cell carcinoma (SCC) / malignant melanoma (MM) patients requiring specialist cancer care (3%), complex BCC excisions (oculoplastic, plastic, maxillofacial surgery (2%), and severe inflammatory dermatoses (2%).

- **Low new:follow-up ratios:** The service has a new:follow-up ratio of 1:0.5. This compares to between 1:1.3 and 1:1.6 in local secondary care services.

- **98%–99% skin cancer excision rates:** A one-stop consultant-led surgical service has resulted in a high-quality service with low onward skin cancer referrals.

- **Low surgical infection rates:** Surgical infection rates are recorded at 1.8% (below national averages).

- **GP education:** There is a rolling continuing professional development (CPD) programme for the GPwSI working in the service. Referring GPs are updated via a newsletter and educational events and lectures.

- **Cost-effective service:** The community tariff has a cost saving of over 30% compared to secondary care. This is achieved through effective selective triage, one-stop diagnostic clinics, and low follow-up ratios. Much of the cost saving is achieved through service redesign and service efficiency of clinical care.

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**Establishing integrated ‘hub and spoke’ models and larger centralised units**

Over half of respondents to the survey conducted by BAD and The King’s Fund advocated a form of a consultant-led integrated hub and spoke model, with larger central units, supported by a strong district general hospital (DGH) dermatology presence, with closer working relationships with primary care. Central to this approach was the view that there needed to be stronger relationships between community and specialist clinicians.
We need to have an integrated primary and secondary care model; I can’t see how else it will work. Specialist nurse

I would advocate a hub–spoke model, with strong intermediary dermatology services. Rapid diagnosis is the key, and that requires pattern recognition and seeing skin problems day in, day out. Consultant dermatologist

Linked to integrated hub and spoke models is the option of further centralisation of specialist services. Many of the consultants who contributed through the survey and workshop supported the development of national units to manage very rare cases, but this could be developed further to incorporate other specialist areas.

Many consultants advocated centralisation of dermatology specialist services to: allow changes in workforce numbers to be absorbed more easily; allow for changes in demand to be spread across a wider number of specialists; improve audit and clinical governance; promote collegiate working, sharing of skills and experience; and have the associated support of a larger unit.

If larger consultant teams are to be developed there is an opportunity to review the consultant job plan. Newly appointed consultants often have 8/10 PAs in clinic, whereas some senior consultants only have 6/10 – although it is unlikely that consultants have spare capacity as the non-clinical PAs are often taken up with training and research there maybe scope in reviewing the consultant workload if larger consultant teams are formed. This review should be within the context of other speciality team member roles.

There are some examples of trusts entering into voluntary agreements to reconfigure certain services across hospitals. Typically, these involve consolidation of two (or more) small services onto a single site (creating a ‘hub’). However, the evidence suggests that while reconfigurations of this sort can improve quality, they rarely result in significant cost savings because the clinicians involved are often reluctant to take capacity out of the system. The political, public and professional difficulties of ‘closing’ acute care units should not be underestimated.

There has been some progress towards centralising treatment of patients with very rare skin conditions, which is defined by the Specialised Dermatology Clinical Reference Group (CRG) as consultant-to-consultant referrals (the group recognises this is a flawed definition but is using it in the short term). The CRG lists 35 trusts as providing specialised services – six of which are in London – which may result in duplication of specialised services within the region. There does appear to be an
opportunity to further develop specialised centres for rarer skin conditions.

A recent report on the consultation exercise to centralise rare conditions led by the Specialised Dermatology CRG highlighted a number of key issues that need to be addressed, many of which are relevant to the option of centralising other (less rare) specialist services. These include:

- ensuring that patients who need to be referred to specialised treatment are referred
- lack of increased funding for services and reorganising services
- consultant anxiety that they will lose work
- patients will have to travel further
- ensuring that children with rare skin conditions obtain high-quality care under the care of their paediatrician, as they are rarely under the care of a dermatologist
- poor diagnosis coding in outpatients to define specialised activity more accurately.

**Developing an ‘attending’ model**
The option of running larger clinics where the specialty doctors see patients and the consultant supervises and acts as an ‘attending’ to the service was discussed at the workshop; this model means the consultant would see only a couple of very complex cases in each clinic. Where this has been trialled, the main difficulties occur when the system becomes delayed if there is a complicated patient in the main clinic – so triaging patients would be key to this.

_In the outpatient unit, the consultant should act as a floating supervisor for staff in the clinic. I think we resist this as it’s enjoyable to see patients individually and gives you a warm glow. If you are supervising 100 patient appointments, then you don’t personally get the positive feedback. But I think we have to move towards this._ Consultant dermatologist

**Developing skin lesion centres**
A couple of interviewees suggested that moving all skin lesion referrals to a centralised efficient unit could free up consultant time. It was felt that GPs will continue to refer skin lesions, as they are nervous about missing cancers, and only experts in looking at skin lesions have the best patient outcomes.

_Skin cancer has really moved up the agenda, mainly because of the skin cancer charities pushing it. It has made the GPs jumpy and skewed the limited dermatology resources._ Patient representative
Pulling all skin lesion referrals together in one service in a specialist centre could improve efficiencies and facilitate effective audit and clinical governance. It was felt that it did not have to be the consultant undertaking diagnosis and treatment, and that consideration should be given to training up other health care workers.

Centres like this could also be provided by the private sector, under the supervision of a consultant team.

We should create skin cancer centres – 50% of referrals are for skin lesions, which are usually a single visit, so continuity of care is not an issue. The cost is the transfer to surgery. These centres don’t have to be operated by a dermatologist, it could be a technician or nurse, so long as they are trained and see enough of the condition to be an expert (after 10 days of training, medical students outperform GPs in skin cancer recognition). Most lesions don’t need excising, and by having an expert team, we could reduce the number of inappropriate surgeries. Centralising would then allow for data analysis and audit; currently, small numbers are done in different units and we don’t know the standards of care. Consultant dermatologist

Direct patient access for patients with severe chronic skin conditions
The terms ‘direct access’ and ‘self-referral’ mean that patients are able to refer themselves to a specialist without having to see anyone else first.

Several respondents to the survey conducted by BAD and The King’s Fund wanted patients to have the ability to refer themselves to dermatologists directly. And representatives with chronic conditions wanted the ability to easily re-access the service when their condition deteriorated (rather than going through the GP referral route again).

Patients are better off seeing a specialist first – to get the right diagnosis the first time and a proper treatment plan (even if that is just reassurance). Consultant dermatologist

Addressing the financial disincentives
There are a number of financial barriers within primary and secondary which need to be addressed, as they impact on current and future dermatology service provision. For example:

- There may be commissioning conflicts of interest due to some CCGs commissioning dermatology services from GPwSIIs in their locality.
• The GP practice model means that for GPs to take a day out and train in dermatology, it would require the practice (or another source) paying for a locum to cover the GP’s sessions and paying the GP that is training.

• The cost of a GPwSI is often more than a specialty doctor’s registrar or consultant, as the service would have to pay for the GPwSI’s time as well as the locum costs to cover the time away from their practice. A specialty doctor contract can be as high as £70,000, which is far less than a GP partner. This can result in specialty doctors becoming demoralised by GPwSIs being paid more than them, and lower numbers of GPwSIs, as becoming a GPwSI is not financially attractive to GPs.

• Many Specialist Registrars in dermatology who have completed their CCT are becoming locums for areas that are struggling to recruit consultants, earning up to £3,500 a week (some up to £200,000 a year) – significantly more than the most qualified consultant in the area. This is a result of simple market forces of supply and demand.

• Some interviewees reflected that training GPs could be a threat to their private practice.

> Where GPwSIs are viewed as a threat to the consultants, and put in place by commissioners as a cost-saving exercise, without the supervision of consultants, that’s where you get the nasty cases and it all falls down. Consultant dermatologist

> Most dermatologists would be very resistant to up-skilling GPs, as it would hit their private practice. Consultant dermatologist

• Many of the interviewees also identified the current model of general practice and commissioning as a barrier to integrated working between community and specialist care.

> The model of general practice just doesn’t work. They are incentivised to refer on patients as they won’t get extra money or benefit from trying to manage patients in primary care. Consultant dermatologist
Appendix A

Workforce requirement for the specialty

*Taken direct from the RCP Dermatology section*\(^{260}\)

Based on government statistics for new patient referrals in 2009–10, a population of 250,000 generates 4,000 new patients. With a ratio of 1 new to 1.6 follow-up patients achievable for general dermatology clinics (not counting patients attending for patch-testing, phototherapy, surgery and other treatments), 6,400 follow-up patients would give 10,400 patients per year in total.

The recorded new to follow-up ratio in 2009–10 for dermatology in England was 1:2.1. Commissioners using current recording methods should expect these figures. Activities related to direct clinical care generate approximately 0.4 PA (programmed activity) for each clinic.

A 10-PA consultant should work 5 PAs in the clinic or operating theatre, with 2 PAs of patient administration and 0.5 PA for MDT.

A consultant with no travel to other centres, no inpatients, ward rounds or on-call, no specialist clinics, no clinic teaching and no junior supervisory role should undertake two new, two follow-up (or equivalent mixed clinics) and one skin surgery clinic per 10-PA week. With 12 new patients (20 minutes per consultation), 16 follow-up cases (15 minutes per consultation) or up to seven surgical cases per clinic, 24 new patients, 32 follow-up patients and 7 surgical procedures are seen per week. These are maximum numbers; actual numbers and new:follow-up ratios vary according to case type/complexity, with a ratio of 1:1.6 reported for psoriasis.

People attending phototherapy, day care, treatment visits, surgery or investigations should not count or be coded as follow-up cases. Intermediate services take simple cases, resulting in more complex cases in secondary care adversely affecting new:follow-up ratios.

In an average 42-week year, a consultant will see 1,008 new and 1,344 follow-up patients and perform 280 operations. A population of 250,000, therefore, requires four whole-time equivalent (WTE) consultants (i.e. one consultant per 62,500 based on Department of Health 2009–10 figures).

This does not allow for specialist clinics, teaching students, supervising or training any grade of staff, ward referrals, inpatient care, on-call work, travel or MDT meetings.
### Example job plan (England)

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<tr>
<th>Activity</th>
<th>Workload</th>
<th>Programmed activities (PAs)</th>
</tr>
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<tbody>
<tr>
<td><strong>Direct clinical care</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ward rounds, day-care supervision, nurse clinic supervision, ward referrals in hospitals with contractual agreements</td>
<td>Referrals from hospital colleagues; inpatient bed numbers vary</td>
<td>0.5–1.5</td>
</tr>
<tr>
<td>General outpatient clinics</td>
<td>10 for new clinic (20 min/consultation) or 16 follow-ups (15 min) or combination</td>
<td>3–4</td>
</tr>
<tr>
<td>Skin surgery</td>
<td>7 cases of average complexity</td>
<td>0–1</td>
</tr>
<tr>
<td>Skin cancer MDT</td>
<td>Weekly or alternate weeks</td>
<td>0.5–1</td>
</tr>
<tr>
<td>Dermatopathology</td>
<td>Variable</td>
<td>0–0.5</td>
</tr>
<tr>
<td>On-call duties</td>
<td>Variable</td>
<td>0–1</td>
</tr>
<tr>
<td>Administration and management</td>
<td>‘Choose and Book’, direct patient care, review of results, communication with other healthcare professionals (0.4 per clinic or surgical list)</td>
<td>2–2.5</td>
</tr>
<tr>
<td>Specialist clinics</td>
<td>eg paediatric, patch testing, phototherapy, psoriasis, skin cancer</td>
<td>0–2</td>
</tr>
<tr>
<td>Travel</td>
<td>Variable</td>
<td>0–1</td>
</tr>
<tr>
<td><strong>Total number of direct clinical care PAs</strong></td>
<td></td>
<td>7.5 on average</td>
</tr>
<tr>
<td><strong>Supporting professional activities (SPAs)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work to maintain and improve the quality of healthcare</td>
<td>Revalidation undergraduate education, nurse, GP and hospital doctor training and supervision, appraisal educational supervisor or programme director for SfRs; departmental management and service development audit and clinical governance CPD and revalidation, research etc</td>
<td>2.5 on average (1.5 minimum)</td>
</tr>
<tr>
<td>Other NHS hospital responsibilities</td>
<td>Medical director/clinical director/lead consultant in specialty/clinical tutor</td>
<td>Local agreement with trust</td>
</tr>
<tr>
<td>External duties</td>
<td>Work for deaneries/royal colleges/specialist societies/DH or other government bodies</td>
<td>Local agreement with trust</td>
</tr>
</tbody>
</table>
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