

## **Dermatology- high level needs assessment - August 2015**

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## Executive summary

- Self-reported skin disease is very common. Estimates suggest that only 14% of those affected seek further medical advice, predominately from general practitioners, and to a lesser extent pharmacists.
- Based on national estimates and average list sizes, each Gloucestershire practice might expect to see in the region of 2,700 consultations for skin conditions per annum. National studies (from 2006) suggest that on average 1 in 15 patients (6%) presenting in primary care with a skin condition will be referred to secondary care; and that the main reason for referral in over half of cases is diagnosis, followed by hospital based treatment. It would be valuable to compare this with more recent data on local referrals to see if this is a fair reflection of the local situation.
- Skin infections, such as viral warts and herpes simplex represent the commonest group of skin problems presenting in primary care; followed by eczema. Modelled estimates (based on national prevalence) suggest there may be 25,000 people with eczema in the county; of which 9,700 will have atopic eczema.
- Studies indicate that up to 45% of activity (new patients) in secondary care relates to skin lesions, in the majority of cases (c.70%) suspected skin cancer; up to 16% is related to eczema and up to 7% psoriasis.
- Dermatology represented 3.7% of all outpatient attendances in 13/14 in England, and 0.8% of all inpatient admissions. Nationally, over half of admissions coded as dermatitis and eczema were emergency admissions; rising to 85% in the case of urticaria and erythems. It is recommended that this is compared to local HES data to see how the county compares.
- Gloucestershire CCG spent £16.6m on 'problems of the skin' in 13/14; slightly below the national and cluster average for this programme area. Note: the programme budgeting category does not include skin cancer and is therefore likely to be an underestimation of total expenditure on skin conditions.
- The highest areas of spend in 13/14 (in almost equal proportions) were scheduled care; primary prescribing, and unscheduled care (non elective and emergency admissions). The CCG benchmarks slightly above the national and cluster average for spend on non-elective admissions and more so for spend on 'high cost/unbundled drugs and devices'. County expenditure is notably below the national and cluster average for spend on 'community and integrated care'. This variance is worth exploring as it may suggest scope to review current care settings/pathways.
- Skin conditions, notably psoriasis, atopic eczema and acne, have been shown to have a significant impact on quality of life and are associated with depression and anxiety. It is recommended that clinicians consider both the emotional and physical impact of skin conditions when assessing patients.
- Studies suggest that diagnosis and management of skin cancer makes up the majority of dermatological activity in secondary care. The incidence rate of all skin cancers (non-melanoma and

melanoma) has increased over the last decade, nationally and locally. The South West has some of the highest incidence rates for skin cancer in the country; and while Gloucestershire is not the highest in the region, the county incidence rate is significantly higher than the national average.

- Solar UV exposure is the leading avoidable risk factor for all skin cancers, the implication being that a significant proportion of cases in the county could be prevented through behaviour change.

- Risk of the most common non melanoma skin cancer, basal cell carcinoma (BCC), increases with age; and given that the county has an ageing population, the number of people with the condition is likely to rise. Nationally incidence rates of BCC are disproportionately high in younger people (30-39 years old) meaning the county may also see increasing 'need' among a younger demographic.

Nationally, more than a third of cases of melanoma skin cancer are occurring in those aged under 55.

- The county all age mortality rate from malignant melanoma is in line with the national average (2011-13); and over the three year period 2011-2013, there were 80 deaths from the disease in the county. Three year and five year survival rates from malignant melanoma are good relative to the national average, with 94% of patients diagnosed between 2008 and 2010 surviving at least three years.

- Survival from malignant melanoma is related to the stage of the disease at diagnosis. In 2013, 75% of melanomas in the county for which staging data was available were diagnosed at stages 1A and 1B; above the regional and national average of 71%; however additional years of data are needed to draw robust conclusions about how early melanomas are being diagnosed.

## 1. Background and notes on data sources

1.1 This document presents the findings of a high level, rapid review of the available epidemiological data on skin conditions at the national and local level. It is intended to improve understanding of the health needs of the Gloucestershire population and has been produced to inform the work of the CCG's Dermatology programme team.

1.2 With the exception of skin cancer, there is limited local incidence or prevalence data available on the majority of common skin conditions, including psoriasis and eczema. In these instances, modelled estimates have been provided based on national incidence and/or prevalence data.

1.3 A key source of national level information for this review was a 2009 health care needs assessment on skin conditions in the UK carried out by the Centre of Evidence Based Dermatology at the University of Nottingham.<sup>1</sup> While some of the sources cited in the document date from circa 2006, in the absence of more recent data, they are included as an indication of what the local picture might be. More recent sources have been used, where possible.

## 2. What is the national disease burden from skin conditions?

### **Prevalence of skin conditions and presentation patterns in primary care**

2.1 National surveys suggest that approximately 54% of the UK population experience a skin condition in a given twelve month period (note: this figure is self-reported and includes more minor skin conditions, such as cuts and grazes; and athlete's foot).<sup>2</sup> In Gloucestershire this would equate to over 305,600 people. The majority (69%) self-care, with around 14% seeking further medical advice, primarily from GPs (consulted by 82% of those seeking advice) and pharmacists (17%).<sup>3</sup> The propensity of people to self-care highlights the importance of making appropriate information available to support this.

2.2 The annual prevalence of skin disease in patients presenting to primary care in England and Wales in 2006 was around 24%.<sup>4</sup> It is estimated that for every 100 persons on a general practitioner registered list there are 37 consultations for skin disease per annum; and on average there are two consultations (1.87) per episode.

2.3 The average list size in Gloucestershire CCG is 7,363<sup>5</sup> meaning that if the estimated number of consultations is correct, Gloucestershire practices might expect to see in the region of 2,724 consultations for skin conditions per annum. It is recommended that this estimate is compared with local data to determine whether it is an accurate reflection of local activity.

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<sup>1</sup> Propriety Association of Great Britain and Readers Digest (PAGB) (2005) A Picture of Health, cited in Schofield et al (2009) Skin conditions in the UK: a Health Care Needs Assessment, Centre of Evidence Based Dermatology, University of Nottingham. The PAGB study included the following conditions: minor cuts and grazes, skin rash/allergies/irritated skin; athlete's foot; eczema; acne/spots; minor burns/sunburn. The study did not ask about a number of conditions, including skin lesions, psoriasis and cold sores and as such is unlikely to be a comprehensive picture of the population experiencing skin conditions.

<sup>2</sup> Propriety Association of Great Britain (PAGB) (2005) A picture of health. Cited in Schofield et al (2009), p.13

<sup>3</sup> ibid

<sup>4</sup> Schofield et al 2009

<sup>5</sup> PHE Practice Profiles.

2.4 Table 1 shows the prevalence, episode incidence and consultation rate (per 10,000 population) for a range of skin conditions presenting in primary care based on 2006 data returns from a representative sample of General Practices in England and Wales. While slightly dated, this still provides a reasonable indication of the likely case mix in primary care. Skin infections, such as viral warts and herpes simplex represent the commonest group of skin problems presenting in primary care; followed by eczema.<sup>6</sup>

**Table 1: Prevalence, episode incidence and consultation rates for selected skin conditions in primary care (per 10,000 population, 2006) source: RCGP Weekly Returns Service.**

Condition	Prevalence data	Episode incidence (per 10,000)	Consultation rates
<i>Total skin infections (includes herpes zoster and viral warts)</i>	785	656	1131
Eczema (other than atopic eczema)	251	164	279
Atopic eczema	162	110	278
<i>Total eczema</i>	413	274	557
Skin tumours: benign and malignant plus lipoma	172	128	227
Sebaceous gland disease- including acne	164	125	251
Psoriasis and related disorders	69	33	109
Urticaria	53	40	70
Chronic skin ulcer	27	21	129

*Note: the episode incidence rate captures how often a specific condition presents as a new episode of illness. For some diseases a person may have more than one episode a year, which would be counted as an additional episode. In contrast, the prevalence data counts this as one person in one year.*

### Secondary care activity (inpatient and outpatient activity)

2.5 It is estimated that about 6.1% of people consulting their GP with a skin condition during a 12 month period are referred to a specialist dermatology department (2006 data)<sup>7</sup>. Nationally, the majority of patients are seen as outpatients rather than inpatients.

2.6 Dermatology represented 3.7% of all outpatient attendances in 13/14 in England; equivalent to just over 3 million people<sup>8</sup> (HES, NHSIC 13/14) and 0.8% of all inpatient admissions.<sup>9</sup> Nationally, there has been a slight but steady year on year fall in the percentage of outpatient attendances for dermatology as a proportion of all attendances in over the last decade (from 4.8% in 2004/05 to 3.7% in 2013/14). Initial analysis of the HES data suggests a small increase in inpatient admissions for dermatology over the same period which may account for some of the fall in outpatient activity, though increased management in primary care may also be a factor. It is recommended that

<sup>6</sup> RCGP Weekly Returns Service 2006 cited in Schofield et al (2009), pp.17-19. Note: the RCGP Weekly Returns Service is a network of 105 general practices located throughout England and Wales that participate in a scheme to collect information on every consultation and new episode of illness diagnosed in general practice.

<sup>7</sup> Schofield et al (2009), p.21

<sup>8</sup> Outpatient attendances where dermatology was the main speciality under which the consultant was contracted. HES data, NHSIC <http://www.hscic.gov.uk/hes>

<sup>9</sup> HES data, NHSIC <http://www.hscic.gov.uk/hes>

inpatient and outpatient activity data for Gloucestershire is analysed to see how the county compares to the national trend.

2.8 Table 2 shows inpatient activity in England in 2013/14 where a skin condition was the primary diagnosis.

- Nationally over half of admissions coded as dermatitis and eczema were emergency admissions; rising to 84.7% in the case of urticaria and erythems. The later is partly to be expected given that both conditions are often acute and there can be complications in some cases.
- A high proportion of admissions for malignant neoplasms of the skin and papulosquamous disorders, including psoriasis are day cases (92% and 84% respectively). However papulosquamous disorders also have the longest mean length of stay at 8.4 days.

2.9 The table also includes data on the mean age of in-patients by condition, which indicates that the majority of in-patients were of working age, with the exception of skin cancer which had a mean age of 72. As noted at 3.11, risk of skin cancer increases with age, and given that Gloucestershire has an ageing population, the county is likely to see an increasing number of cases.

Primary diagnosis: summary code and description		Finished consultant episodes (FCE)	Admissions	Emergency admissions as a % of all admissions	Mean length of stay	Mean age	Day cases as a % of all admissions	FCE bed days
L00-L14, L55-L99	Other infections and disorders of the skin	322,040	267,082	49.1%	5.6	54	44.5%	843,003
L20-L30	Dermatitis and eczema	14,799	13,014	58.2%	2.7	37	35.1%	23,079
L40-L45	Papulosquamous disorders (including Psoriasis)	15,677	14,969	6.9%	8.4	51	84.2%	16,327
L50-L54	Urticaria and erythems	6,903	5,879	84.7%	2.1	33	12.4%	10,966
C43-C44	Malignant neoplasms of skin	134,366	133,190	0.9%	3.3	72	92.3%	34,169

### Secondary care case mix

2.10 There is limited diagnostic data available on patients seen in secondary care; however a number of studies indicate that around half of specialist dermatology workload is related to the diagnosis and management of skin lesions; the majority of which are for suspected skin cancer.<sup>10</sup>

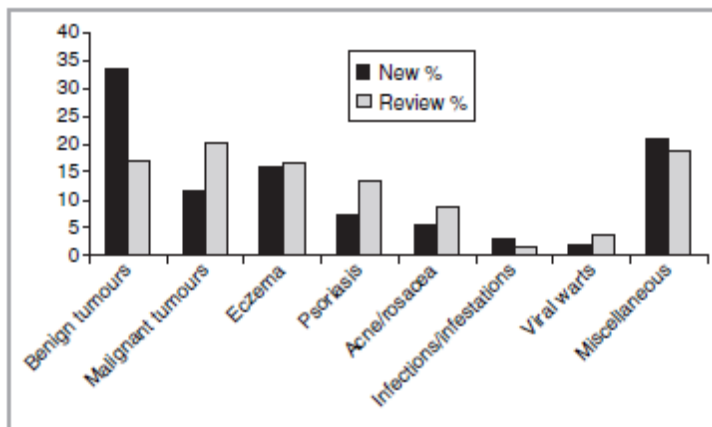
<sup>10</sup> Benton et al (2008), Schofield (2008); Joseph et al 2008 – all cited in Schofield et al (2009), p.65

2.11 Data collected from four dermatology centres in England for a range of periods between 1998 and 2008 suggest that the commonest reasons for patients to be seen in specialist dermatology units are skin lesions (benign and malignant) (35-40% of activity), eczema (10-12% of activity), psoriasis (c.6% of activity) and acne (c.5-7% of activity).<sup>11</sup>

2.12 Table 3 and figure 1 shows similar results from a Scottish study which captured data on all outpatient dermatological consultations in the South East region of the country, for a one month period in 2005<sup>12</sup>. While the study population may differ from that in Gloucestershire and the data is relatively old, the findings still give a reasonable indication of the likely case mix in secondary care in the county; again suggesting that skin lesions are likely to make up the majority of activity, followed by eczema. It would be valuable to compare this with local activity data on dermatological consultations in Gloucestershire were this to be available.

Condition	New patient (n = 2040)	Review patient (n = 2270)
Benign tumours	33.4%	17.1%
Malignant tumours	11.6%	20.2%
Eczema	16%	16.7%
Psoriasis	7.4%	13.5%
Acne/rosacea	5.5%	8.7%
Infection/infestation	3%	1.4%
Viral warts	2.1%	3.7%
Miscellaneous	21%	18.7%

**Figure 1: Percentage of all outpatient dermatological consultations by diagnosis in SE Scotland broken down by new and review cases, November 2005 (source: Benton et al, 2008)**



<sup>11</sup> Skin conditions seen by specialists in four centres in England (Manchester 1998-2008; Peterborough 2007; Sheffield 2004; W Hertfordshire 2007). Date stated as percentage of total caseload. Schofield et al (2009), p.22.

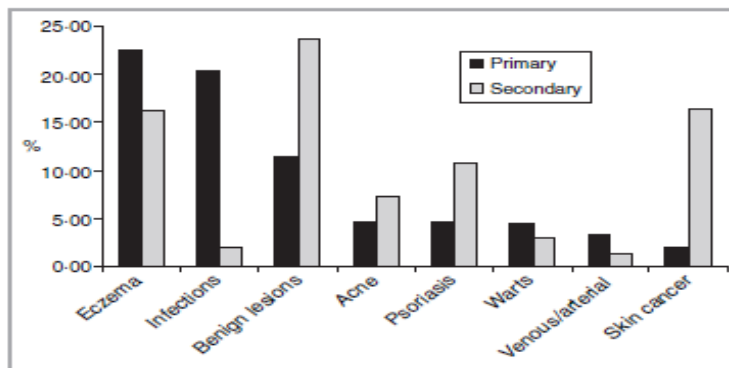
<sup>12</sup> Benton et al (2008) The changing face of dermatological practice: 25 years' experience, British Journal of Dermatology, 2008, 159, pp.413-418.

2.13 The Scottish study (Benton et al, 2008) also compared the diagnostic spectrum in secondary care with data collated on diagnoses in primary care for the same region of Scotland over a similar period (figure 2). This suggests that:

- While skin infections make up a relatively small proportion of secondary care workload; they are the second most common diagnosis in primary care after eczema.
- Eczema makes up a relatively high proportion of diagnoses in primary care and secondary care.
- Patients with psoriasis make up a notably higher proportion of diagnoses in secondary care than they do in primary care. Schofield et al cite research suggesting a high referral rate for specialist, second line treatments in psoriasis patients; the implication being that when patients with psoriasis do present to their General Practitioner, quite a few need referral for consideration of specialist treatments. A 2006 study found that 60% of psoriasis patients had been referred for specialist care at some point; of these 50% had required second line treatment and 25% experienced periods of remission.<sup>13</sup>

2.14 Benton et al also looked at the reasons for referral to secondary care for new patients included in the study: 57% were referred for diagnosis; 38% for hospital based treatments; and 4.4% were requested by the patient. This may indicate scope for further diagnosis to be done in primary care with the appropriate training.

Figure 2: Comparison of diagnoses (%) in primary and secondary care consultations, 2005 (Benton et al 2008)



### Mortality from skin conditions

2.15 In 2014, there were 1,753 deaths in England and Wales where the underlying cause was coded as 'diseases of the skin and subcutaneous tissue'; representing 0.3% of all deaths from all causes in England and Wales. This figure excludes deaths from skin cancer, a major area of mortality from skin disease. In 2014, 2,237 deaths in England and Wales were due to malignant melanoma and 666 were due to 'other malignant neoplasms of the skin'; increasing the total proportion of all deaths attributable to skin diseases to 0.9%.<sup>14</sup>

<sup>13</sup> Nevitt and Hutchinson 2006 cited in Schofield et al 2009, p.89

<sup>14</sup> ONS, Death registrations summary statistics, England and Wales 2014



### Impact of skin disease on quality of life

2.16 There are a number of studies quantifying the impact of skin disease on the quality of life of patients and carers. Evidence suggests that skin diseases, particularly psoriasis, atopic eczema and acne, can significantly impair quality of life and are associated with psychological problems, such as anxiety and depression.<sup>15</sup> Skin conditions have also been shown to impact on life chances and employment; for example inpatient treatments or systemic therapy for psoriasis can result in the loss of working days.<sup>16</sup> It is recommended that clinicians consider the psycho-social impact of skin diseases when assessing patients.

### Co-morbidities

2.17 In addition to the psychosocial co-morbidities associated with skin disease, there are also clinical co-morbidities seen with a number of common skin conditions and it is recommended that these are taken into account in planning care.

2.18 Severe eczema is linked with multiple co-morbidities, including asthma, hay fever and food allergies. Notably studies suggest that the consultation rate in primary care for eczema patients is above that of the general population (note, this includes all consultations not just those specifically for eczema).<sup>17</sup> In addition to psoriatic arthritis, there is also some evidence that patients with psoriasis have higher prevalence of cardiovascular risk factors (including diabetes, hypertension and metabolic syndrome) and appear to be at increased risk of CVD.<sup>18</sup> It is recommended that clinicians consider additional screening for CVD risk factors in this group of patients.

## 3. What is the local disease burden from skin conditions?

### Estimates of local prevalence of common skin conditions

3.1 With the exception of skin cancers, no published data was identified on the local prevalence and/or incidence of skin conditions in Gloucestershire. As such, national prevalence data has been applied to the Gloucestershire population to give an indication of the *approximate* number of people likely to be affected by common skin conditions in the county (table 4).

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<sup>15</sup> Finlay 1990; Rapp et al 1996 cited in Schofield et al (2009)

<sup>16</sup> Finlay and Coles (2009) cited in Schofield et al (2009)

<sup>17</sup> Simpson et al (2009) Trends in the epidemiology and prescribing of medication for eczema in England, Journal of the Royal Society of Medicine, 2009, 102, pp.108-117.

<sup>18</sup> Patel et al 2011 Psoriasis and vascular disease: risk and outcomes, a systematic review of the literature, Journal of General Internal Medicine, 26(9).

**Table 4: Modelled estimates of local prevalence of common skin conditions**

Condition	National prevalence (estimate)	Low local estimate	High local estimate	Local estimate (number)	Source
Atopic eczema	All ages (presenting): 1.6%	-	-	9,781	RCGP weekly returns, 2006 cited in Schofield et al 2009
Eczema other than atopic eczema	All ages:(presenting): 2.5%	-	-	15,283	RCGP weekly returns, 2006 cited in Schofield et al 2009
Acne	15-24 year olds (presenting): 5%	-	-	3,550	RCGP weekly returns, 2006 cited in Schofield et al 2009
	All ages (presenting): 1.2%	-	-	7,336	RCGP weekly returns, 2006 cited in Schofield et al 2009
Psoriasis	1.5%	-	-	9,170	Nevitt and Hutchinson 1996 cited in Schofield et al 2009
Actinic Keratosis	Between 19% and 23% for people aged 60+.	30,601.02	37,043.34	33,822 (mean)	NICE 2013
Hyperhidrosis	1%-2.8%	6,113	17,117	11,615	Benson 2013

3.2 Of those listed, numerically the most prevalent condition locally is Actinic keratosis, a common condition in the over 60s caused by sun exposure. High numbers with the condition locally is likely to reflect the county's older age profile. The next most prevalent condition is eczema and the most common form of the condition, atopic eczema. The later is particularly prevalent in children highlighting support for managing children with the condition in both primary and secondary care.<sup>19</sup> National studies indicate that 80% of atopic eczema cases occur before the age of five<sup>20</sup>. NICE cite an estimated prevalence of 16.5% in children aged 1-5 years<sup>21</sup> though severity levels will vary.

While evidence is mixed, there are studies suggesting that nationally prevalence of eczema is increasing, which if correct would mean more cases presenting.<sup>22</sup>

#### Incidence of skin cancers in Gloucestershire

3.3 As noted, national studies suggest that management of skin lesions makes up between 35-45% of activity in secondary care. Further studies suggest that up to 70% of these referrals are for suspected skin cancer<sup>23</sup>. It is possible that recent changes to NICE guidelines lowering the threshold for referrals for suspected cancer cases may result in an increase in suspected skin cancer referrals.<sup>24</sup>

3.4 There were 1,496 new cases of skin cancer in Gloucestershire in 2012 (an incidence rate of 247 per 100,000). While numbers fluctuate year on year, on average, there has been a 2.1% annual increase in the number of new cases of skin cancer in the county between 1998 and 2008.

3.5 Nationally, skin cancer rates have been increasing since the mid 1970s, and trend data for Gloucestershire shows a similar picture (figure 3). There are signs of a fall in the national incidence rate in recent years; and while the county rate also fell between 2011 and 2012, further data is needed to see if this trend continues locally.

<sup>19</sup> NICE quality standard (QS44) (September 2013) Atopic eczema in children; NICE guidelines (CG57) (December 2007) Management of atopic eczema in children from birth up to the age of 12

<sup>20</sup> NICE (2013) Clinical Knowledge Summary – atopic eczema

<sup>21</sup> NICE (2008)

<sup>22</sup> Simpson et al (2009)

<sup>23</sup> Schofield et al 2009, p.65.

<sup>24</sup> NICE NG12 (June 2015)

3.6 The South-West has some of the highest incidence rates for skin cancer in the country; and while Gloucestershire is not the highest in the region, it is notable that the county incidence rate has been consistently higher than the national incidence rate for the whole period (1998-2012). Confidence intervals are not available for previous periods, but the most recent data for 2010-12 shows that the difference is statistically significant (i.e. unlikely to be due to chance) (figure 4).

Figure 3 Incidence of all skin cancers, all ages (per 100,000).

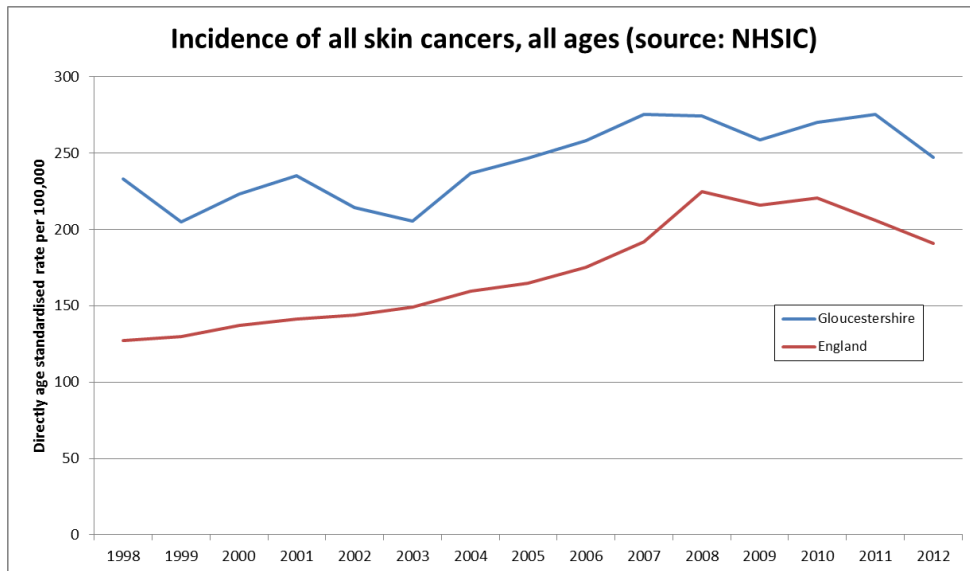
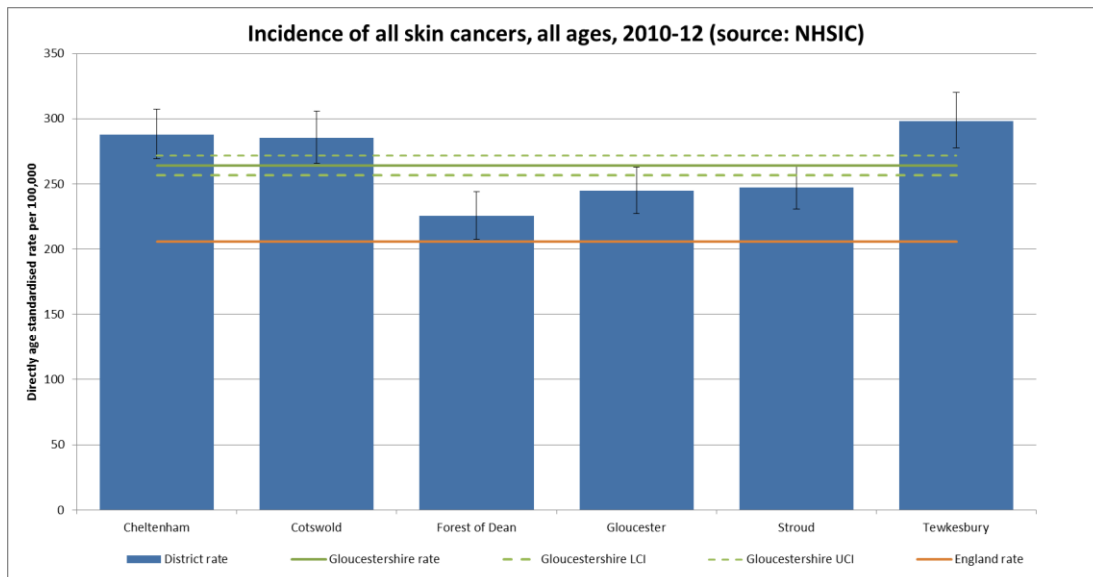


Figure 4: Incidence of all skin cancers in Gloucestershire, all ages (per 100,000) 2010-12



3.7 The six districts have also all seen increases in skin cancer incidence rates between 1998 and 2012, with some of the highest rates seen in Tewkesbury, the Cotswolds and Cheltenham. This is borne out in the latest data for 2010-12 (figure 4). All districts have incidence rates which are above

the national average. Tewkesbury, the Cotswolds and Cheltenham are also above the county average; though the difference is only statistically significant in the case of Tewkesbury.

### Non melanoma skin cancers (NMSCs)

3.8 National data suggest that the majority of skin cancers (97%)<sup>25</sup> are non melanomas; either basal cell carcinomas (BCCs) or squamous cell carcinomas (SCCs).

3.9 BCCs are more common than SCCs and it is reasonable to assume that the majority of activity related to NMSCs in the county will be related to the management of BCCs; the most common cancer in the UK<sup>26</sup>. Around three-quarters of non-melanoma skin cancer registrations are BCC and less than a quarter are SCC<sup>27</sup>. There are a number of limitations with registration data for BCCs (not all BCCs are submitted for histology) which means that incidence data may be an underestimation of the true level of 'need' in the local population.<sup>28</sup> Cancer Research UK estimates that between 30-50% of BCCs and 30% of SCCs are unrecorded.<sup>29</sup>

3.10 Mortality from non melanoma skin cancers is relatively low. There was an average of seven deaths a year in the county from skin cancers other than malignant melanoma between 2003 and 2013, and the rate has stayed flat. Mortality from NMSCs is usually as a result of metastatic spread from SCC.

3.11 Risk of BCC increases with age; and given that the Gloucestershire population is ageing at a faster rate than the national average, the county is likely to see increasing numbers of people presenting with BCCs. However, national studies suggest that the largest reported increases in incidence are occurring in the 30-39 age group (which has been attributed to increasing UV exposure in younger generations<sup>30</sup>) so the county may also expect to see increasing 'need' among a younger demographic.

3.12 The leading avoidable risk factor for non melanoma skin cancers is exposure to solar UV radiation. It is estimated that up to 70% of SCCs and up to 90% of BCCs are related to sun exposure<sup>31</sup> the implication being that a high number of cases in the county could potentially be prevented through a change in behaviour; highlighting the importance of health promotion.

3.13 There are also a number of clinical risk factors for NMSCs including: long term immunosuppression or altered immunity (particularly after renal transplant); treatment with PUVA for psoriasis, past history of NMSC, and presence of precursor lesions, such as Bowen's Disease and actinic keratosis. Raising awareness of clinical risk factors amongst health professionals and patients should help improve prevention and early intervention.

3.14 A 2004 evaluation of the 2-week referral rule for skin cancer in the UK indicated that approximately 86% of 2 week wait urgent referrals for suspected skin cancer turn out to be non-

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<sup>25</sup> Schofield et al 2009

<sup>26</sup> NICE 2010

<sup>27</sup> <http://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/skin-cancer#heading-Zero>

<sup>28</sup> NICE (2010)

<sup>29</sup> <http://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/skin-cancer#heading-Zero>

<sup>30</sup> Bath-Hextall et al (2007) cited in NICE 2010

<sup>31</sup> CRUK <http://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/skin-cancer/risk-factors#heading-Two>

malignant.<sup>32</sup> It is recommended that local conversion rates are looked at to see how the county compares. While the 2004 study is dated and the situation may have changed, it would suggest scope for better training in primary care on the recognition of skin cancer.

### **Malignant melanoma – incidence rate**

3.15 Malignant melanoma remains a relatively uncommon cancer. The incidence rate for Gloucestershire in under 75s for the three years 2010-2012 was 21 per 100,000; equivalent to 337 cases. The all age incidence rate was 25.7 per 100,000; equivalent to 456 cases. This means that 74% of cases in the county in the period 2010-12 occurred in the under 75s.<sup>33</sup> In both cases local incidence is significantly higher than the national average.

3.16 While numbers remain relatively low, incidence rates of malignant melanoma in the UK have increased more than fivefold since the mid 1970s.<sup>34</sup> While research cited by Cancer Research UK attributes some of the increase to increased surveillance and detection, and changes in diagnostic criteria, the majority is linked to changes in sun related behaviour, including the frequency of holidays abroad.<sup>35</sup>

The county has seen a similar upward trend in incidence of malignant melanoma (figure 5); and has been above the national average for significant periods of time in the period covered (1998-2012).

3.17 District incidence rates can fluctuate significantly due to the small number of cases recorded at district level. This can make it difficult to draw firm conclusions about how districts compare to the national and county average; however across the three year period 2010-2012 (pooled data), Tewkesbury, Cheltenham and Stroud had the highest incidence rates (figure 6).

3.18 Nationally, rates of malignant melanoma are disproportionately high in younger people, with more than a third of cases occurring in people under the age of 55. Notably, data from Cancer Research UK suggests that people aged 65 and over are more likely to be diagnosed with late stage malignant melanoma than younger people; suggesting the importance of awareness and early diagnosis initiatives across age groups.

3.19 Sun exposure is the main avoidable risk factor for malignant melanoma. An estimated 86% of malignant melanoma cases in the UK are linked to solar UV radiation, the implication again being that a high proportion of cases could be prevented through primary prevention and health promotion interventions.

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<sup>32</sup> Cox (2004) cited in NICE 2010

<sup>33</sup> NHSIC

<sup>34</sup> CRUK <http://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/skin-cancer/risk-factors#heading-Two>

<sup>35</sup> CRUK <http://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/skin-cancer/incidence#heading-Two>

Figure 5: Incidence of malignant melanoma 1998-2012, all ages (rate per 100,000)

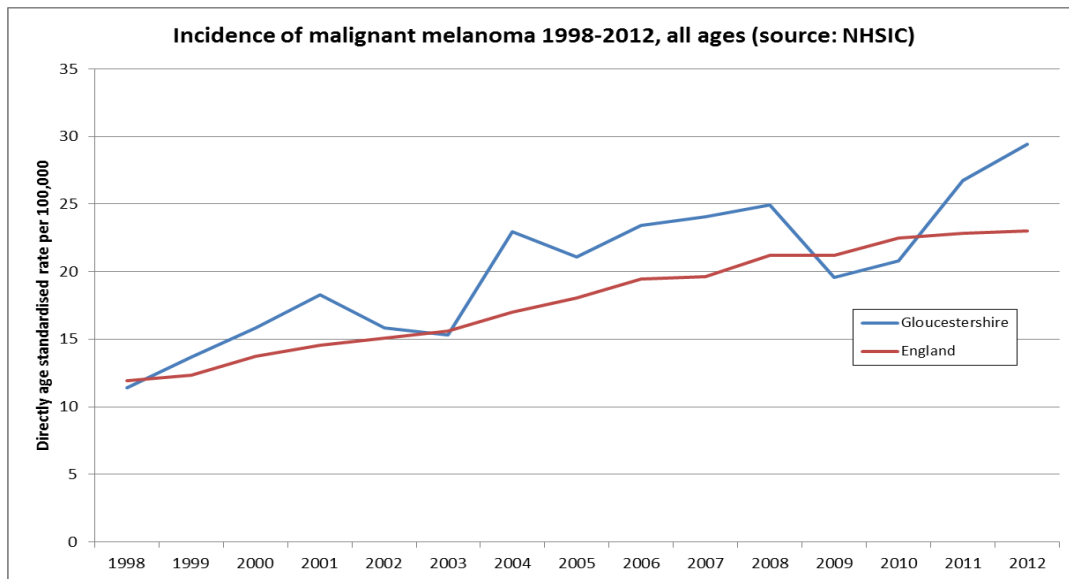
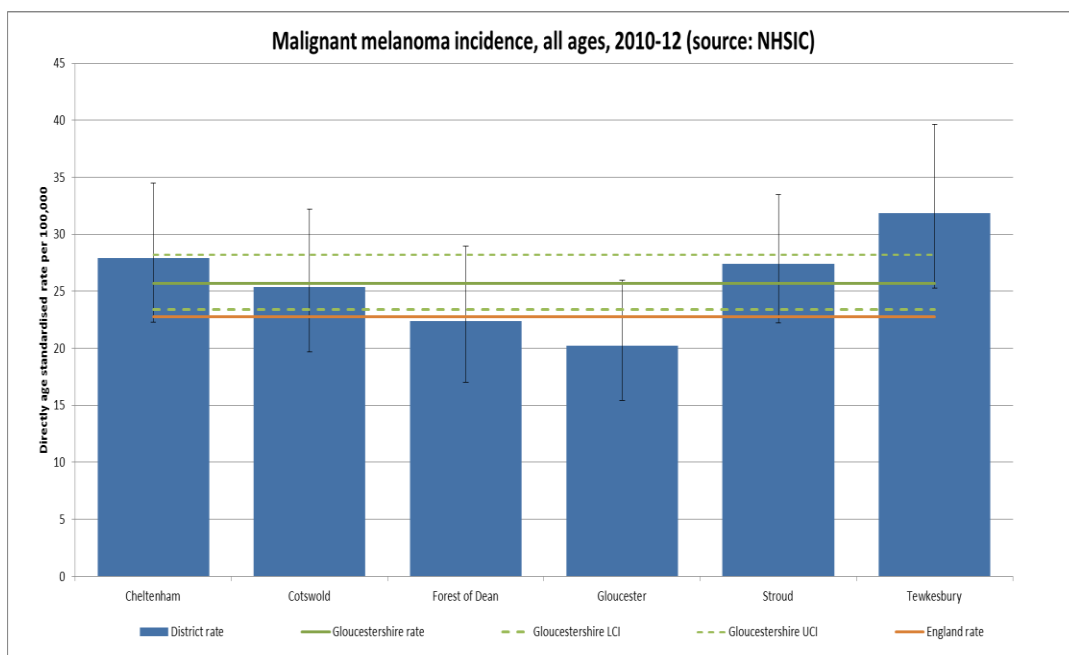


Figure 6: Incidence of malignant melanoma in Gloucestershire, all ages, 2010-12 (rate per 100,000)



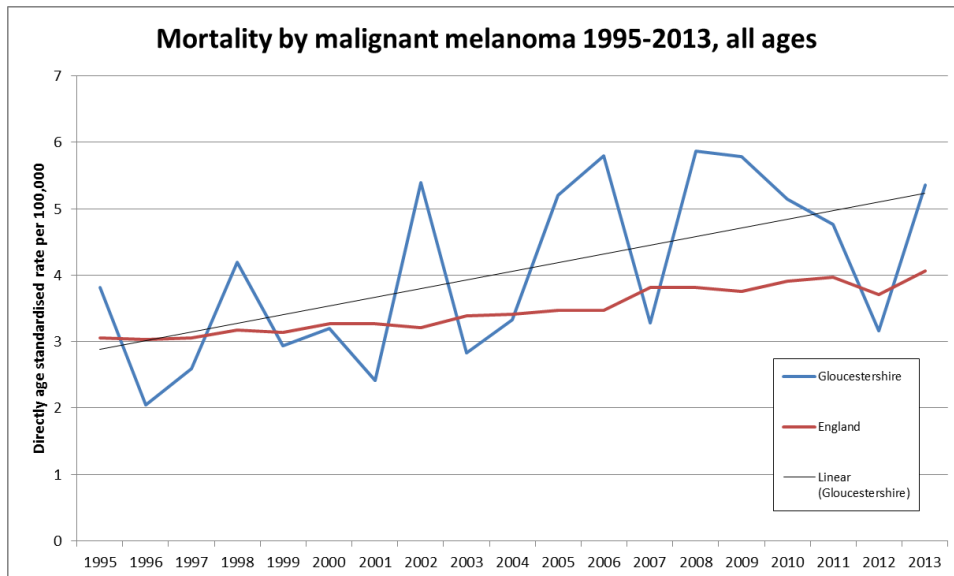
### Malignant melanoma- mortality rate

3.20 Malignant melanoma is the 18th most common cause of cancer death in the UK (2012), accounting for 1% of all deaths from cancer. In 2011-13 the county mortality rate from malignant melanoma was 4.42 (per 100,000) in line with the national average. This was equivalent to 80 deaths over the three year period (on average 27 deaths per annum). The mortality rate in under 75s was 2.96 (per 100,000); equivalent to 48 deaths over three years.

3.21 Nationally the mortality rate from malignant melanoma has been increasing since the 1970s; though there are indications that the increase started to level off in the 1990s, partly related to

improvements in survival rates. As shown in figure 7, while the mortality rate from melanoma in Gloucestershire has fluctuated (likely related to low numbers), the trend line indicates that overall it has increased at a faster rate than the national average; though it is important to note that based on pooled data for the period 2011-13; the county mortality rate remains in line with the national average (i.e. the difference is not statistically significant).

Figure 7: Mortality from malignant melanoma in Gloucestershire 1995-2013, all ages (rate per 100,000)



### Malignant melanoma – staging data

3.22 Malignant melanoma survival has been improving for the last forty years and is now amongst the highest for any cancer. Survival for malignant melanoma is related to stage of the disease at diagnosis.

3.23 While robust staging data at county level is only available for one year 2013, it does provide an indication of how early melanomas are being diagnosed in the county (table 5). In 2013, 75% of melanomas (for which staging data was available) were diagnosed at stages 1A and 1B; compared to a regional and national average of 71%. Four percent were diagnosed at stage 3, compared to a regional and national average of 6%. Note: stage of diagnosis was not available for 39 cases in the county out of a total of 165 cases, which means the data may not give an accurate picture of local performance. Additional years of data would enable more robust conclusions to be drawn particularly given the relatively small number of cases.

**Table 5: Clinical stage data for cases of malignant melanoma in Gloucestershire and comparator areas in 2013 (source: National Cancer Registry Service, SWKIT, PHE)**

Stage	Gloucestershire		South West		England	
	Cases	Percentage	Cases	Percentage	Cases	Percentage
1A	64	50.8%	663	44.3%	4449	43.8%
1B	30	23.8%	397	26.5%	2762	27.2%
2A	11	8.7%	124	8.3%	847	8.3%
2B	9	7.1%	96	6.4%	683	6.7%
2C	7	5.6%	68	4.5%	479	4.7%
3	5	4.0%	92	6.1%	623	6.1%
4	0	0.0%	56	3.7%	308	3.0%
Unknown	39	N/A	331	N/A	2188	N/A
Total	165	N/A	1827	N/A	12339	N/A

### **Malignant melanoma – survival rates**

3.24 As with most cancers, survival rates for malignant melanoma are improving. Tables 6 and 7 show three and five year survival rates for Gloucestershire, relative to England. In both cases survival rates in the county for this cohort are good relative to the national average; with 94% of patients diagnosed between 2008 and 2010 surviving at least three years, and 90% surviving at least five years.

**Table 6: Three year cohort survival for Gloucestershire and England (2008-2010 cohort followed up to the 31/12/2013) (source: National Cancer Registry Service, SWKIT, PHE)**

Area	Cases	Relative survival	LCI	UCI
Gloucestershire	374	93.9%	93.6%	94.1%
England	30567	92.7%	92.3%	93.1%

**Table 7: Five year cohort survival for Gloucestershire and England (2006-2008 cohort followed up to the 31/12/2013) (source: National Cancer Registry Service, SWKIT, PHE)**

Area	Cases	Relative survival	LCI	UCI
Gloucestershire	407	90.2%	90.0%	90.5%
England	27733	89.6%	89.2%	90.1%

### **3. How much does Gloucestershire CCG spend on ‘problems of the skin’?**

3.1 ‘Problems of the skin’ (including burns) is one of the NHS Programme Budgeting categories. The category excludes ‘skin cancer’ which is recorded under the programme budget for ‘cancers and tumours’; and is such is likely to be an underestimation of total expenditure of skin conditions.



3.2 Gloucestershire CCG spent £16.6 million on 'problems of the skin' in 13/14; which was broadly in line with spend in 12/13 (£17.2 million). Spend in 13/14 was below the national and cluster average by just under a £1million (a variance of approximately £910K and £980K respectively).

3.3 The care settings responsible for the highest proportion of spend were: scheduled care (outpatient attendances and procedures) (responsible for 24.8% of expenditure); primary prescribing (24.6%); and unscheduled care (non elective and emergency admissions) (24%). The later may be partly related to the inclusion of burns in the programme category.

3.4 The CCG benchmarks above the national and cluster average (figure 8) for the proportion of its expenditure on non-elective admissions and 'high cost/unbundled drugs and devices'; and notably below the national and cluster average for the proportion of its expenditure on 'community and integrated care'. The areas of variance may be worth exploring further; for example the apparent under-spend in community and integrated care, may suggest scope to increase service provision in community settings.

**Figure 8: Gloucestershire CCG expenditure by care setting on 'problems of the skin' benchmarked against its CCG 'cluster' average.**

