Publication Report

Practice Team Information (PTI)

Annual Update (2011/12)

27 November 2012

A National Statistics Publication for Scotland

Contents

Introduction

Practice Team Information (PTI) collects information from a sample of Scottish general practices about face-to-face consultations (in a surgery or the patient's home) between patients and a member of the practice team. The practice team is currently defined for PTI purposes as all GPs and practice-employed nurses. Currently there are around 60 practices participating in PTI in Scotland and these are broadly representative of the Scottish population in terms of age, gender, deprivation and urban/rural mix.

The PTI website provides information on the process of data collection and analysis and shows estimates of the numbers of patients consulting and the numbers of consultations, by age and gender, staff discipline, practice or condition. These estimates are used by the Scottish Government, NHS Boards and others within the NHS, charities, researchers and many others to inform policies and develop a better understanding of health and primary health care in Scotland. The PTI web pages are updated annually to include new data and to apply any improved methodology.

This publication provides information on consultations for the financial year 2011/12, and updates figures published previously for the years 2003/04 to 2010/11.

Key points

- For Scotland as a whole GPs and practice-employed nurses combined had an estimated 24.2 million face-to-face consultations with patients in 2011/12 (with a 95% confidence interval of 23.2 to 25.2 million); 30% of these were with nurses. This is a rise of 0.65 million compared to the previous year, and of nearly 2.5 million compared to 2003/04, when PTI recording started. The number of GP consultations rose by almost 6% from 15.6 to 16.5 million over the 9 years, whereas the practice nurse consultations rose by 25% from 6.1 million to 7.6 million over the same period.
- Generally consultation rates increased with age (with the exception of the youngest age group), and were higher in females than in males (particularly in people of working age). Eighteen percent of registered patients did not consult a GP or practice nurse at all in 2011/12 and less than 40% of these were female. The estimated average number of GP or practice nurse contacts per patient in 2011/12 over all registered patients was 4.4.
- For both genders and in most age groups, consultation rates were higher in more deprived quintiles. However in the oldest age groups consultation rates were highest in the least deprived groups. The differences between deprivation quintiles were particularly large in women aged between about 40 and 65. The deprivation curves crossed over in the age group 70-74 for males and 75-79 for females.

Results and Commentary

There are a number of things worth noting in order to interpret the figures in this publication correctly:

1. PTI includes information from the general practice team, which is currently defined as GPs (including locums and registrars) and practice-employed nurses (PN; including practice nurses and their clinical assistants, e.g. phlebotomists and health care assistants).
2. Generally the figures in this publication are estimates based on a sample of around 6% of general practices in Scotland. For all estimates 95% confidence intervals are calculated reflecting the statistical variation (for more information see the Statistical Notes on the PTI website). For the financial years 2003/04 to 2011/12 estimates are based on 59, 53, 51, 49, 48, 58, 60, 59 and 59 general practices, respectively, that submitted complete GP and practice nurse data to the PTI scheme.
3. All top-level estimates are standardised by age, gender and deprivation. Estimates shown by age and gender are standardised by deprivation. Standardisation by (for example) deprivation to the Scottish population aims to account for differences between the PTI sample population and the Scottish practice population in levels of deprivation. For more information on standardisation see the Statistical Notes on the PTI website.
4. The population source used to determine the practice list sizes is the Community Health Index (CHI) record, as at 30 September 2003 to 2011 for the 9 respective years.
5. PTI aims to continually improve the interpretation of the data and therefore analysis methods are regularly reviewed and sometimes updated. The method for dealing with small numbers of registered patients in subcategories within practices was updated for the publication last year and has been further adjusted for this year's publication. Changes are applied to all new and historic data. This has resulted in higher estimates over the board. Also, the estimation of numbers of patients has been updated in that patient age is now calculated as of the 30th of September, resulting in a slight shift in age classes and lower numbers in the youngest age group (0-4 year olds). Therefore figures shown here are not strictly comparable to those published previously. For further information see 'Note of Revisions' on the PTI website or within Appendix 1 of this report.

Overall patient contacts

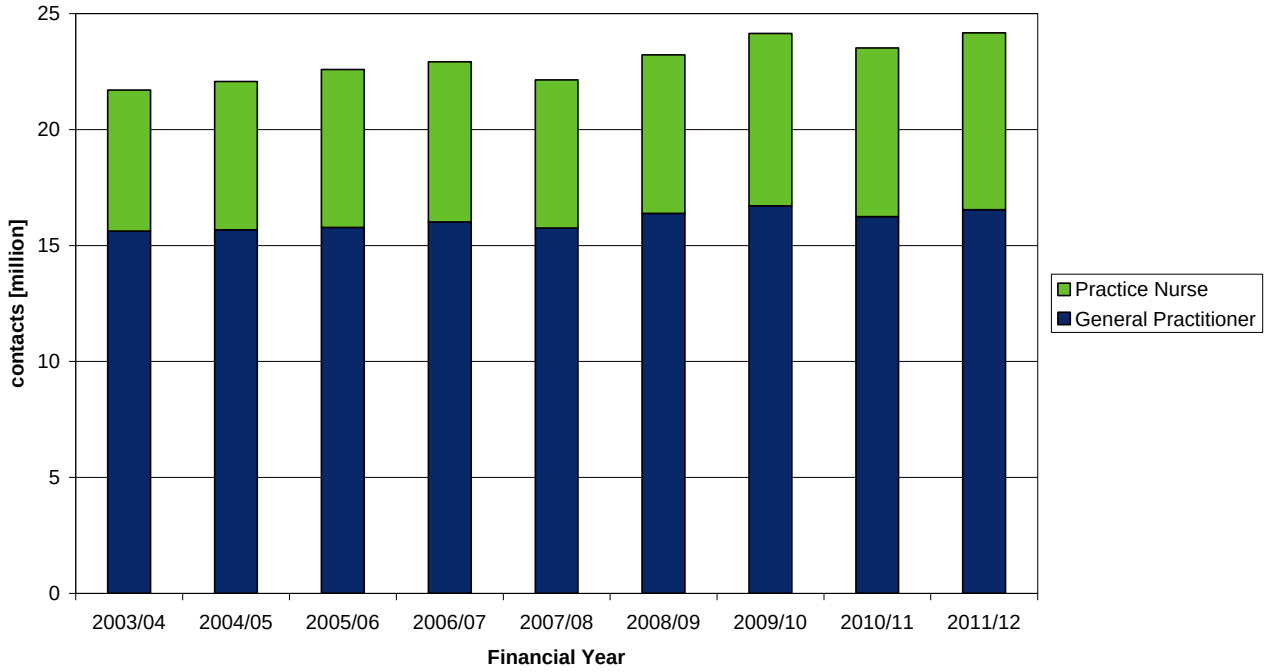
The information collected from the sample of PTI practices can be used to estimate the number of patients consulting and the number of consultations in Scotland, either at an overall level including all consultations whatever the reason or for specific conditions only. This section concentrates on overall numbers of consultations regardless of their reason and subdivides these using various demographic factors. This aims to give an insight into the impact of these factors on the workload in practices and the magnitude of the variations in consultation rates.

Figure 1 below shows the estimated total numbers of face-to-face patient contacts for each staff discipline during each of the nine financial years 2003/04 to 2011/12. The general trend over this period has been a gradual rise. In the most recent year (2011/12) GPs and practice-employed nurses combined had an estimated 24.2 million face-to-face contacts with patients (with a 95% confidence interval of 23.2 to 25.2 million) with the nurses having

an approximately 30% share in this. This represents a rise of 0.65 million per year compared to the previous year, and is the highest figure since the start of PTI recording. The 2011/12 figure is even about 0.03 million higher than in 2009/10, which was the year of the pandemic flu outbreak and had been the highest year on record so far. Compared to the first year of PTI recording (2003/04) the rise was nearly 2.5 million.

Fig 1. Estimated number of patient contacts (millions) with GPs and practice nurses, (A) in bar chart format; and (B) in tabular format - showing estimates ('Est') including 95% confidence intervals ('CI'); financial years 2003/04 to 2011/12

A. Bar chart format



B. Tabular format

	Discipline					
	General Practitioner		Practice Nurse		GP & PN combined	
Year	Est.	*(CI)*	Est.	*(CI)*	Est.	*(CI)*
2003/04	15.6	*(14.9-16.3)*	6.1	(5.6-6.6)	21.7	(20.8-22.5)
2004/05	15.7	*(15.0-16.4)*	6.4	(5.9-6.9)	22.1	(21.2-22.9)
2005/06	15.8	*(15.1-16.5)*	6.8	(6.3-7.3)	22.6	(21.7-23.5)
2006/07	16.0	*(15.3-16.8)*	6.9	(6.4-7.5)	22.9	*(22.0-23.9)*
2007/08	15.8	*(15.0-16.5)*	6.4	(5.6-7.1)	22.1	*(21.1-23.2)*
2008/09	16.4	*(15.7-17.1)*	6.8	(6.2-7.4)	23.2	*(22.3-24.1)*
2009/10	16.7	*(16.1-17.3)*	7.4	(6.8-8.0)	24.1	*(23.3-25.0)*
2010/11	16.2	*(15.6-16.9)*	7.3	(6.6-7.9)	23.5	*(22.6-24.4)*
2011/12	16.5	*(15.8-17.3)*	7.6	(7.0-8.3)	24.2	*(23.2-25.2)*

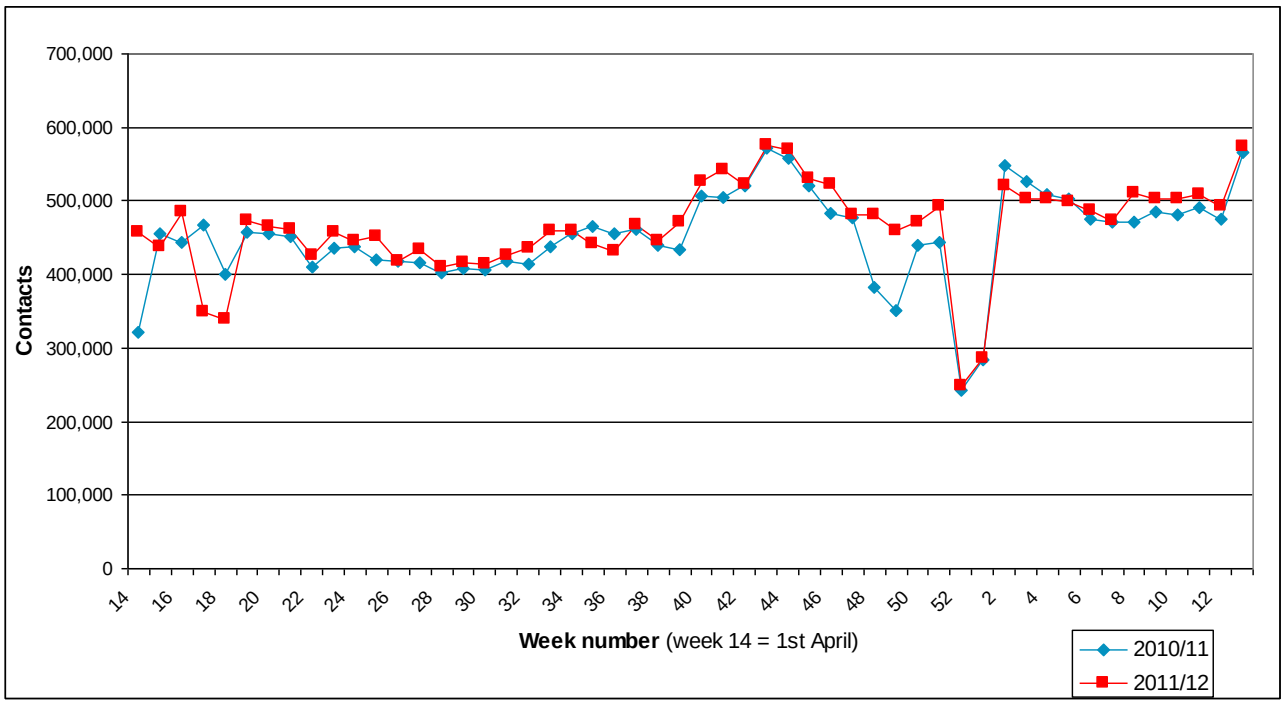
NOTE: This chart and table are available in Excel format.

The number of GP contacts rose more modestly over the nine years compared to the practice nurse contacts. The number of GP consultations rose by almost 6% from 15.6 to 16.5 million, whereas the practice nurse consultations rose by 25% from 6.1 million on 2003/04 to 7.6 million in 2011/12. Both disciplines showed a dip in 2007/08 and to a lesser extent in 2010/11. Note however that the confidence intervals for these estimates are fairly large, so some of these changes may be due to sampling variation.

The relatively larger increase in numbers of consultations for practice nurses compared to GPs illustrates that there is a continuing shift of chronic disease management from GPs to nurses. The drop in 2007/08 was particularly surprising for practice nurses. Practices appear to have become less likely to cover holidays and other absences of regular nurses by employing bank, agency or locum nurses, resulting in a reduction in the numbers of nurse contacts in the year. It is unclear if this could have caused a step-change in 2007/08 though. In 2007/08 a relatively large number of practices changed their practice IT system (from GPASS to either InPS-Vision or EMIS), resulting in brief practice closures, which could have caused a drop in both practice nurse and GP consultations. System changes may also have coincided with a re-definition of some staff members from 'practice nurse' to another type of nurse, which may then fall outside the PTI definition of a practice nurse.

The year 2009/10 saw a fairly large rise in consultations (see Fig 1) that was probably due in part to the outbreak of H1N1 pandemic influenza. Towards the end of 2009 more patients contacted their practice with concerns around flu than in normal years (see the PTI Influenza page for more detail). The next year (2010/11) the number of flu-related contacts had dropped substantially and was nearer the average. In fact, the total number of consultations over the winter season was lower than in other years due to accessibility issues caused by the severe weather. This is clearly visible in Fig 2, which shows the estimated number of consultations per week for both 2010/11 and 2011/12. The number of attendances in 2010/11 around weeks 48-50 is much lower than in the next year. The low number of consultations in weeks 17 and 18 in 2011/12 was a result of practice closures at Easter combined with the Royal Wedding.

Fig 2. Estimated total number of consultations with a GP or practice-employed nurse in Scotland per week for 2010/11 and 2011/12



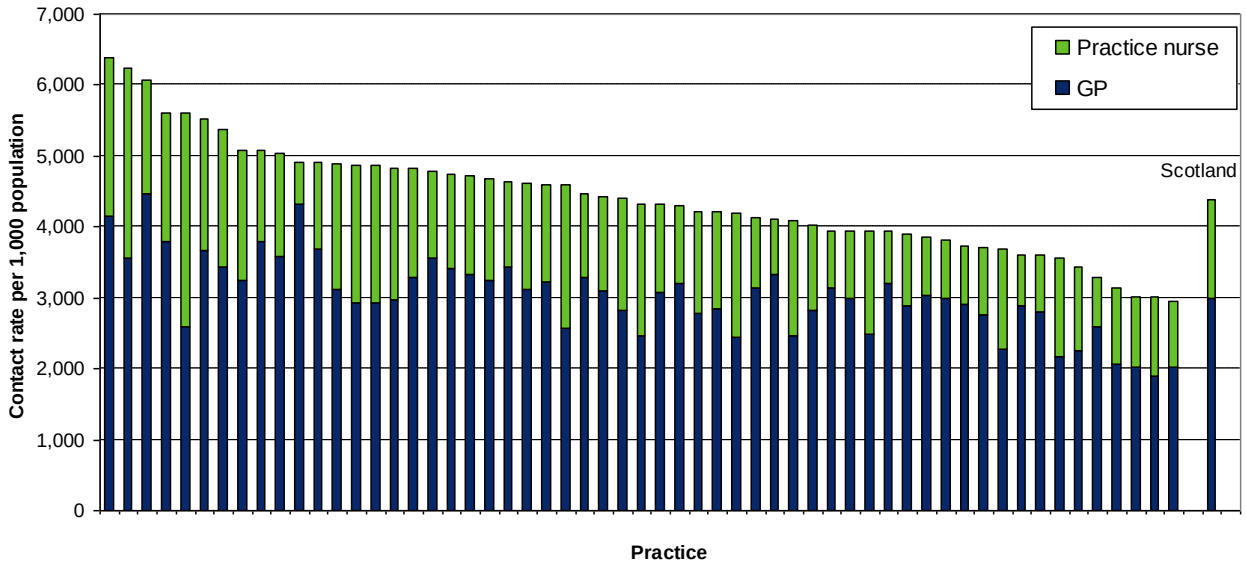
Overall patient contacts by practice

There can be very large variation between practices in patient contact rates. Figure 3 shows the 2011/12 contact rates (per 1,000 registered patients) for GPs and practice-employed nurses for all 59 PTI practices in the national sample. There is also large variation in the ratio of GP to nurse contact rates.

The total annual contact rate (including all contacts with either a GP or a practice-employed nurse) varied from less than 3,000 to nearly 6,400 contacts per 1,000 registered patients. How this workload is divided between GPs and nurses varies greatly between practices. In most practices the GPs do the bulk of the consultations – typically over two-thirds in this sample of PTI practices (and up to 88% in one instance). However, in some practices the practice nurses account for more patient contacts than the GPs (up to 54% in one instance). The estimated combined contact rate based on all 59 practices and standardised to the Scottish population is nearly 4,400 per 1,000 patients, with GPs accounting for approximately 68% of the contacts.

The large variation between practices can be due to the makeup of the practice population (older and more deprived populations tend to consult more) and the organisation and staffing arrangements of the practice. Some practices may have more nursing staff than others and the nurses may be deployed in different ways. For example, some practices will use treatment room nurses paid by the NHS Board, whose patient contacts are typically not captured as part of PTI, instead of employing (all of) their own practice nurses, and this may result in the number of practice nurse contacts as measured through PTI appearing lower than may be expected.

Fig 3. Numbers of contacts with GPs and practice nurses per 1,000 registered patients, for all PTI practices individually and for Scotland overall; financial year 2011/12



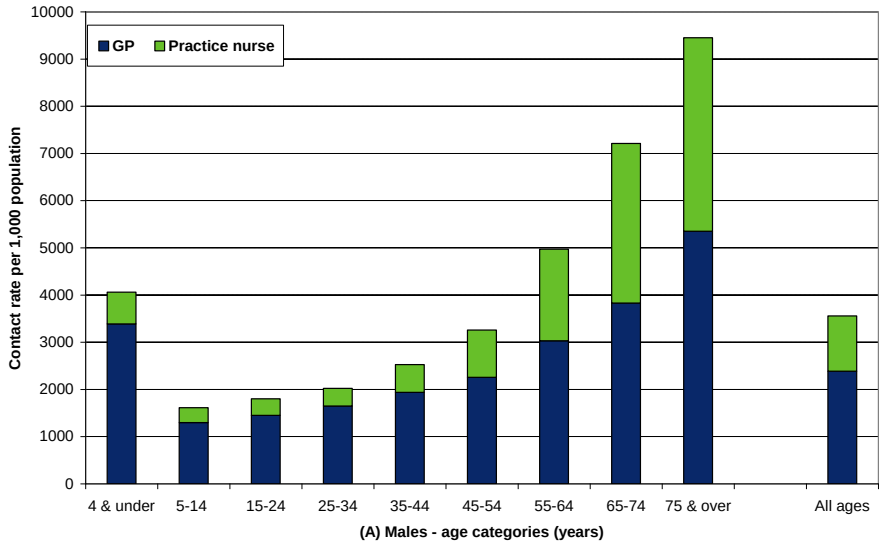
NOTE: These charts for financial years 2003/04 to 2011/12 are also available in Excel format.

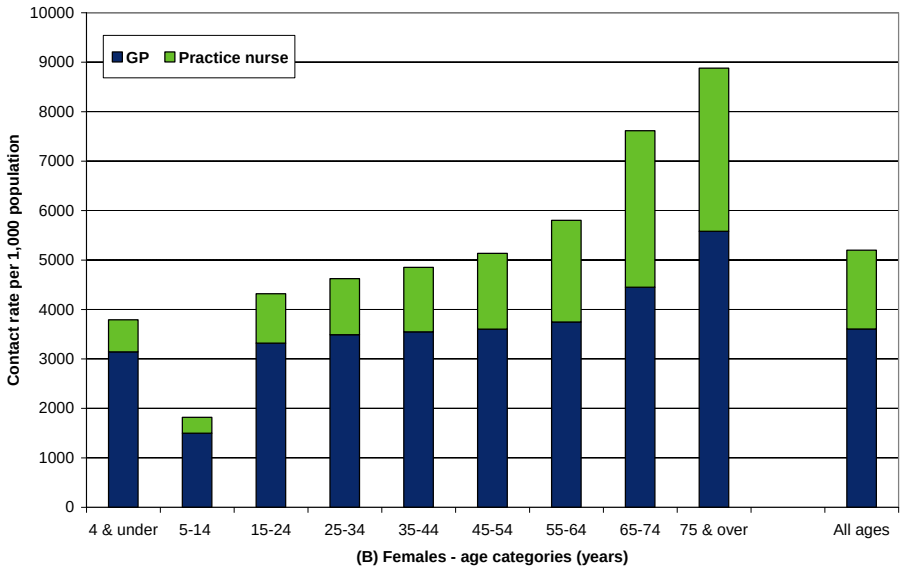
Impact of age and gender

Age and gender have a large effect on how often patients consult their GP or nurse. Figure 4 shows the annual number of contacts with GPs and practice-employed nurses per 1,000

registered patients in the year ending March 2012, by age group, for (A) male and (B) female patients. With the exception of the very youngest and oldest age groups (0-4 and 75 plus, respectively), contact rates are higher for females than for males, with the very highest contact rates found in males aged 75 and over. Whereas in the younger age categories a large majority of patient contacts (particularly for males) are with GPs (over five times more than with nurses), in the older age categories the practice nurse share increases substantially, up to 47% of overall contacts. This may reflect the large contribution nurses make to chronic disease management, which is particularly relevant to older patients. These charts are also available in Excel format (41KB).

Fig 4. GP and practice nurse annual contact rates per 1,000 registered patients for 2011/12; by discipline and age group for (A) males and (B) females





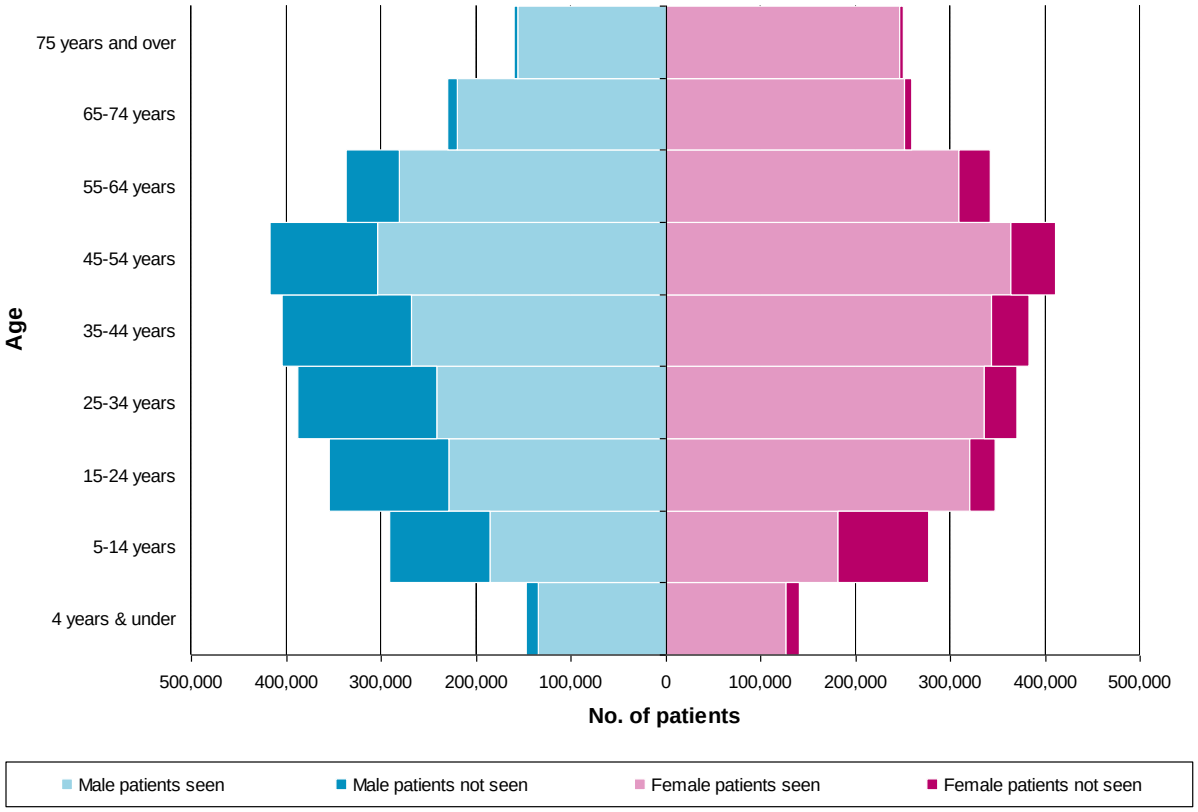
The 'All Ages' estimates show that the average (mean) number of GP contacts per registered patient in 2011/12 was 2.4 for males and 3.6 for females (3.0 on average over both genders – see associated Excel table), so that females see their GP on average 1.5 times more often than males. The difference between genders is slightly smaller with regard to number of contacts with a practice-employed nurse; females saw the nurse on average 1.6 times in 2011/12, versus 1.2 times for males. The average over both genders is 1.4 contacts per registered patient. Note that these averages are based on all registered

patients - the calculations include patients who did not attend their practice at all during the year.

The numbers of contacts as well as the numbers of patients seen per 1,000 registered patients, by age and gender, for all disciplines, for the financial years 2003/04 to 2011/12, can be found in a detailed Excel file (323KB).

As shown above, contact rates vary substantially by gender and age. The impact this has on practice workload will depend on the number of patients registered with the practice in each age/gender category. Figure 5 below illustrates this by showing the total number of patients registered with a practice in Scotland in each age/gender category (as of 30 September 2011), and as part of this, the (estimated) number of patients who had at least one consultation with a GP or practice-employed nurse, for the year ending 31 March 2012. The figures underlying this chart are provided in an Excel table (38KB).

Fig 5. Number of patients registered and estimated number of patients in Scotland consulting a GP or practice nurse at least once in 2011/12; by gender and age group



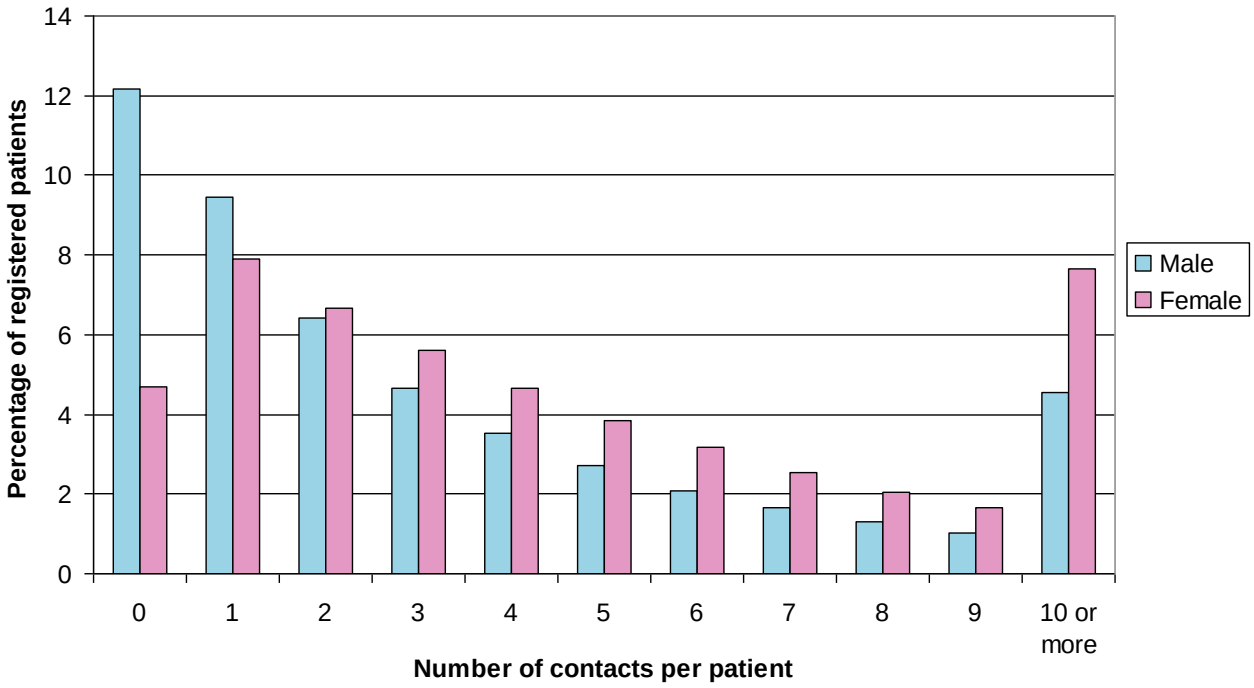
Note: The age of patients consulting is calculated as of 30 September, to be consistent with the number of people registered derived from CHI records. This means that babies born after the 30th of September are not included in the estimated numbers of patients seen. Wherever the number of patients consulting was larger than the number registered on CHI, the number of patients consulting was set to the number registered. This can occur because the number of patients registered is a snapshot taken at a specific date in time (30 Sept 2011), whereas the number of patients seen covers any patient seen in the period from 1 April 2011 - 31 March 2012 regardless if they were registered at the 30th of September. For example, if a patient consulted in May but died or moved away in June, this patient will be included in the patients consulting but not in the patients registered at 30 September.

The chart shows that the largest age category is the 45 to 54 year olds. An appreciable percentage of patients in this age category does not consult the practice at all, so they may not take the largest share of consultations in the practice. Patients in the very youngest and oldest age categories however almost all consulted their GP or practice nurse at least

once. The proportion consulting was lowest for young-adult to middle-aged males and children aged 5 to 14 of either gender. Females of reproductive age were more likely to consult than males of the same age. This is likely to be related to visits for female reproductive issues such as pregnancy or contraception.

The large variation in consultation rates with age and gender is in part due to variation in how many patients consult at least once (as shown in Figure 5), and in part because of variation in the number of consultations of these patients consulting at least once. Figure 6 illustrates this by showing the annual consultation frequency in PTI practices for both genders over all age groups. Male patients who did not consult a GP or practice-employed nurse at all during 2011/12 accounted for 12.2% of all those registered with PTI practices, while the corresponding figure for females was 4.7%. Most females had just a single consultation (nearly 8% of total population) whereas there were fewer males with a single consultation (9.4%) than with no consultation. Just over half the registered patients (53%) had more than two contacts in the year. Just over 12% of the patients had 10 or more contacts; 63% of these were females. Note these are raw figures unadjusted for differences in population profiles of the PTI sample compared to Scotland. The estimated (adjusted) number of contacts per patient per year with either a GP or practice nurse (over both genders and all ages) is 4.4 (see Fig 3).

Fig 6. Percentage of patients registered with a PTI practice, by their annual number of contacts with GP or practice-employed nurse for any reason (2011/12); by gender



The estimated total numbers of patients who had at least one face-to-face contact with each professional discipline in Scotland, in actual numbers and as percentage of patients registered with a practice, for the financial years 2003/04 to 2011/12, is shown in the Excel table '[Estimated percentage of the practice population seen by each staff discipline]' (42KB). The estimates are shown for each individual staff discipline and for GPs and practice-employed nurses combined. Note that although the same patient may be counted under more than one discipline, the patient is counted only once in the combined 'GP and practice nurse' category.

Over these years 81% to 83% of registered patients had at least one contact with either a GP or practice nurse. GPs see the largest proportion of patients within the practice (75% to 77% over the last nine years compared with practice nurses - 43 to 47%), but a small minority of patients are seen solely by other members of the practice team. This suggests that each year around 6% of registered patients had at least one consultation with a practice-employed nurse without also seeing a GP in the same year.

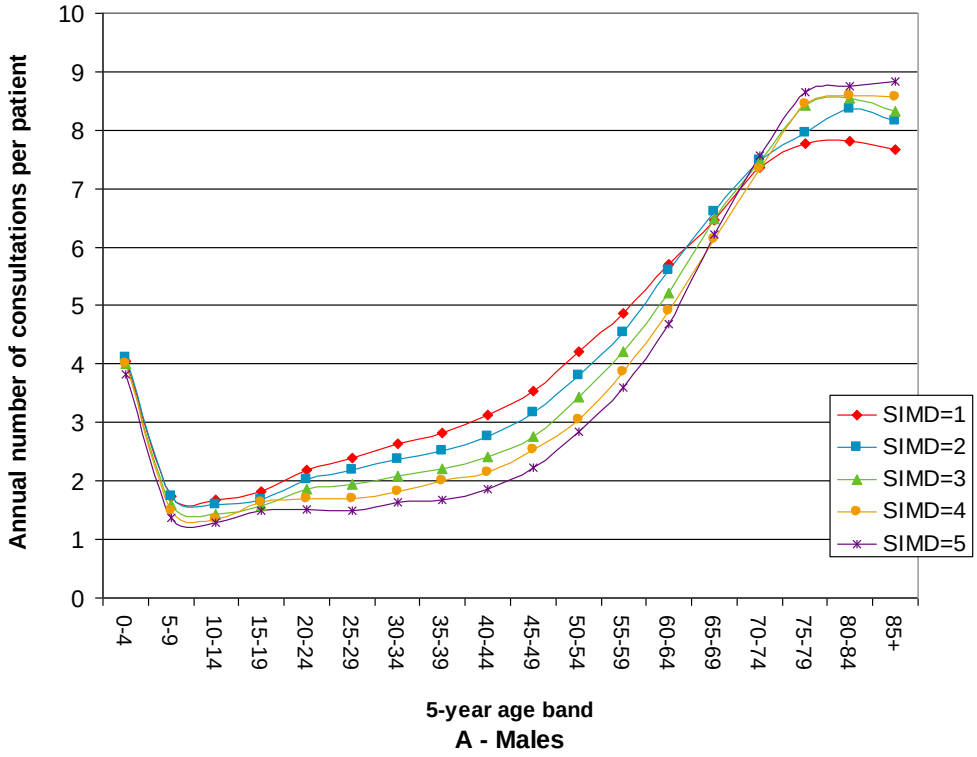
Impact of patient deprivation

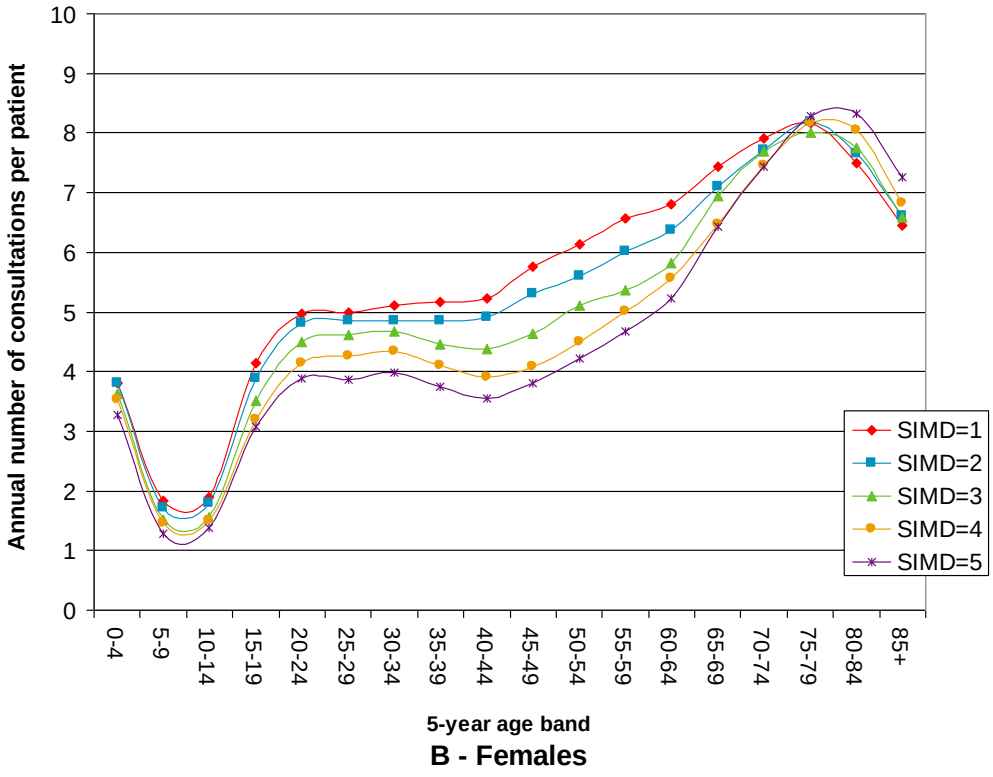
As shown in the previous section, a patient's age and gender have a large impact on their consultation behaviour. Another factor thought to have an impact is patient deprivation. For all patients in the PTI data set the SIMD deprivation quintile is derived (using the second version released in 2009) based on their own postcode. For more information on SIMD see the Scottish Government website. The effect of deprivation on the consultation rates (alongside age and gender) was investigated using statistical modelling. Figure 7 shows the results; in Figure 7A the estimated consultation rates are plotted for males with separate curves for each deprivation quintile, over the full range of age bands, and Figure 7B shows similar figures for females. These charts are also available in Excel format (45KB).

Both graphs show that for both genders and in all age groups apart from the elderly, the consultation rates are higher in more deprived quintiles. These differences are particularly large in women aged between about 40 and 65. In the higher age groups a different pattern emerges, with the deprivation curves crossing over in the age group 70-74 for males and 75-79 for females. For patients older than this, the least deprived patients are shown to have the highest consultation rates and the most deprived patients the lowest.

There are a number of factors that may have played a role in the observed trends. For example a move to a care home may decrease numbers of primary care consultations. People are more likely to move to a care home if they lose the informal care from a partner and they don't have a strong alternative support network. Use of formal support like private care or local authority social care support as well as informal support through family, friends or neighbours will affect the number of times a patient consults their general practice. This may account for some of the gender differences and may also relate to some of the deprivation differences.

Fig 7. Estimated GP/practice nurse consultation rates[1] by age (5-year age bands), for each of the five SIMD quintiles, for (A) males and (B) females.



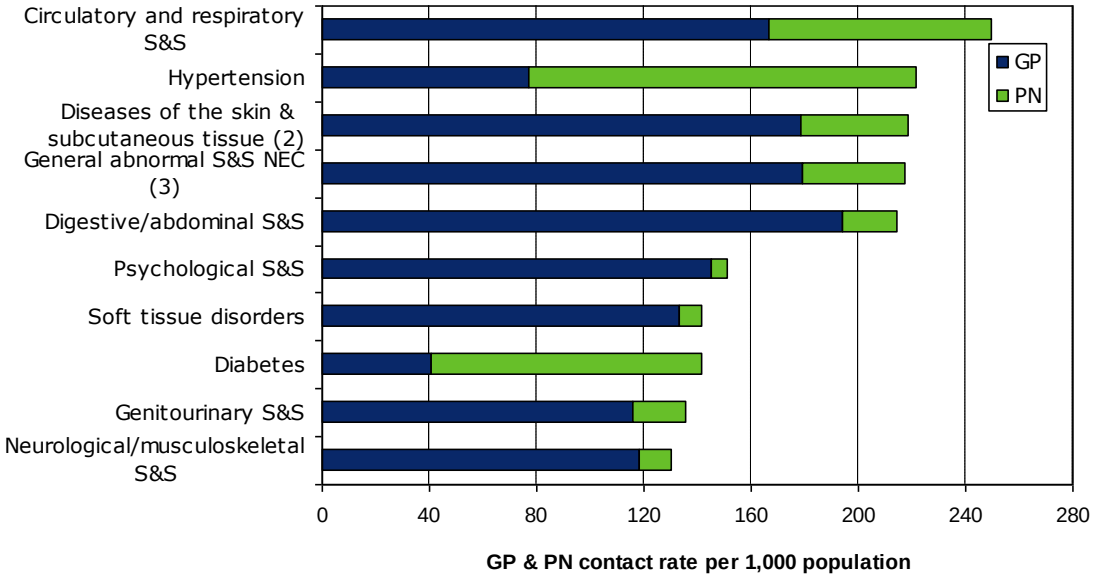


[1] Posterior means of a Generalized Linear model fitting effects of year (2003/04 to 2010/11), practice (59, 53, 51, 49, 48, 58, 60 and 59 general practices for the 8 years, respectively), age group (5-year age bands), deprivation quintile (SIMD 2009-v2; 1=most deprived, 5=least deprived) and interaction between age and deprivation. The model was run for both genders separately. A weighting was applied equivalent to the size of the population (derived from Community Health records at 30 September of each year) as a ratio of the total population in that year.

Reasons to consult a GP or practice nurse

Figure 8 shows the estimated contact rates (per 1,000 registered patients) for the ten groups of conditions most commonly recorded as a reason for consultation with GPs or practice-employed nurses. These analyses are grouped using Read Code Groupings (RCGs). 'Top 10' lists are provided for all disciplines separately for 2003/04 to 2011/12 in Excel format (442KB).

Fig 8. Top 10 conditions[1] ranked on GP and practice nurse (PN) combined contact rates per 1,000 registered patients; financial year 2011/12



[1] Includes signs and symptoms (S&S) that do not necessarily have a confirmed diagnosis, classified according to body system. Classified using ISD's Read code Groupings (RCGs); further information can be found on the PTI website.
[2] Excluding infections and malignancies.
[3] NEC= Not Elsewhere Classified.

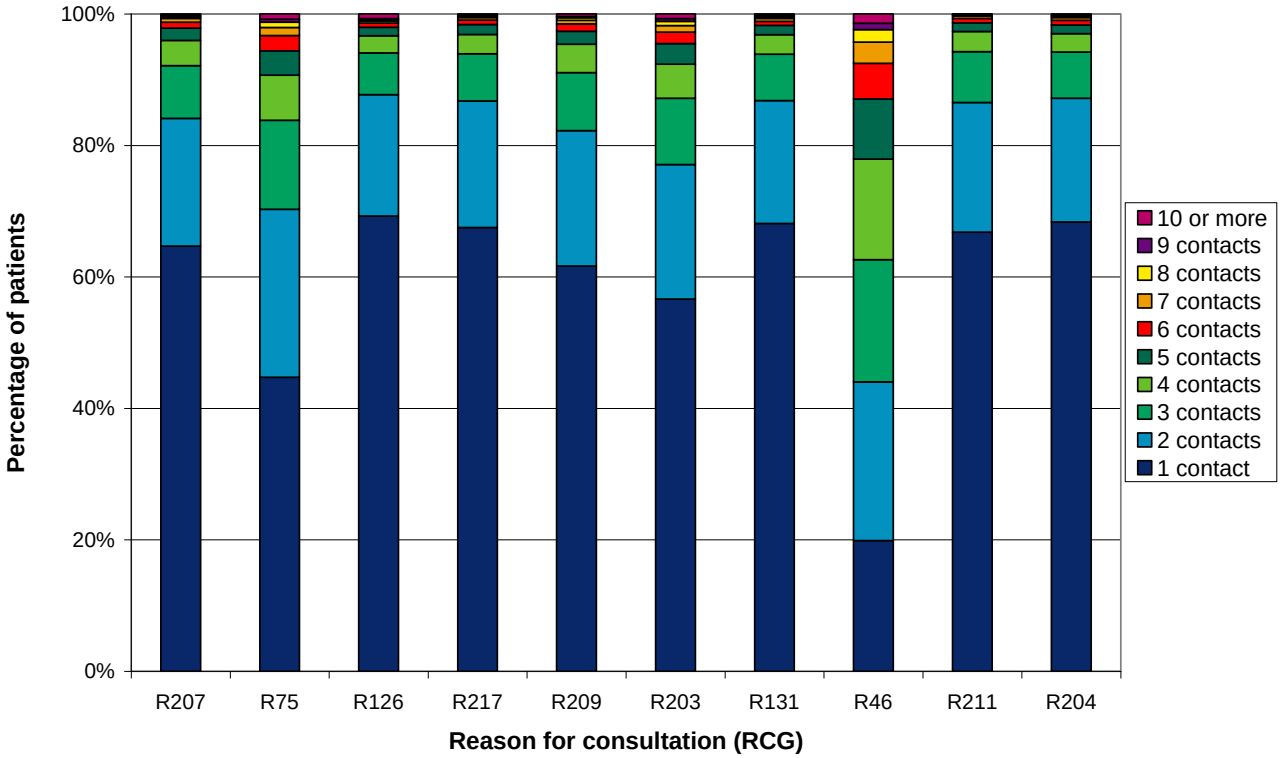
During 2011/12 patients most frequently consulted the GP or practice-employed nurse for circulatory and respiratory symptoms and signs, for example coughs, wheezing or breathlessness. About 67% of these contacts were with a GP. The most frequent reason to consult a GP was for 'Digestive/Abdominal symptoms & signs', with the second most frequent reason 'General Abnormal symptoms & signs'. The most common reason to consult a practice nurse in 2011/12 was hypertension (typically hypertension monitoring); with diabetes the second most frequent reason for consulting a nurse. This probably reflects the fact that patients often present to a GP with problems or symptoms rather than with clear-cut diagnoses, whereas nurses more often manage (previously diagnosed) long-term conditions.

Because the top-10 most seen conditions will differ between age categories and genders, an interactive table giving the top-10 conditions for GPs and practice nurses (as well as combined) by each gender and age group is provided in a separate Excel table (161KB).

The condition that accounts for the most consultations does not necessarily involve the largest number of patients. This will depend on the consultation frequency for the condition; some conditions will typically only require a single consultation whereas some others may require many repeated visits over the year. This is illustrated in Figure 9, which shows the consultation frequencies for the ten most common reasons for consulting a GP or practice nurse in 2011/12.

For groups like “Diseases of the Skin” or “Neurological/musculoskeletal symptoms & signs” the majority of patients had just a single consultation and about 90% had no more than two consultations. However, for a long-term condition like diabetes patients had a much larger number of consultations per year and only 20% had just a single consultation.

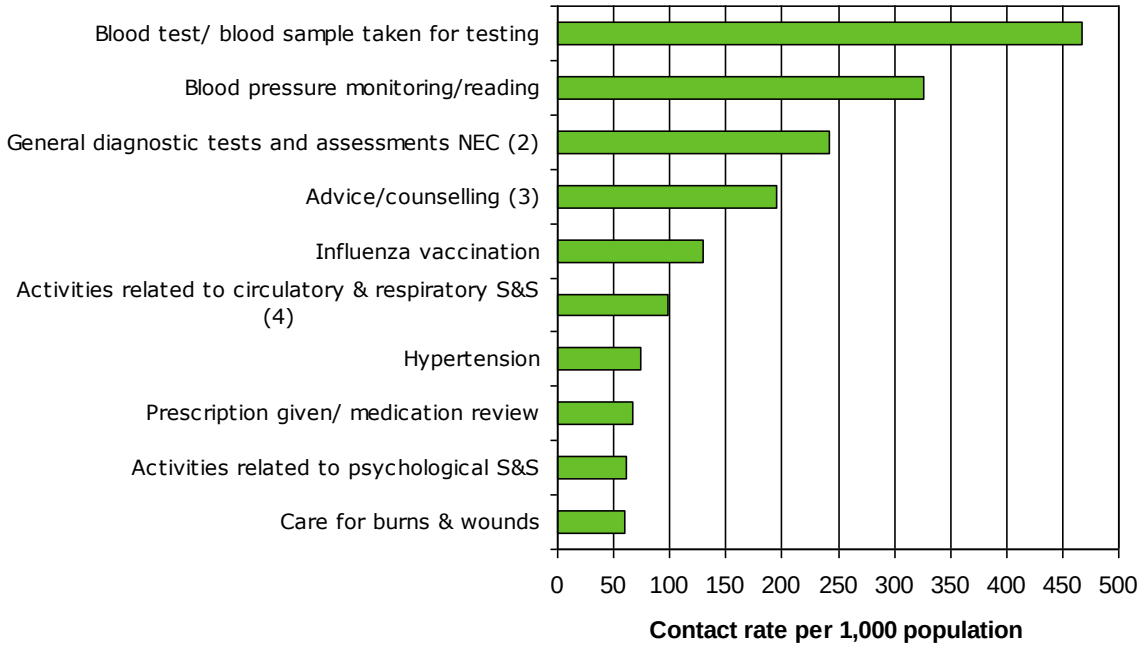
Fig 9. Number of consultations per patient per year for 10 of the most common reasons[1] for contacting a GP or practice-employed nurse (2011/12)



1 The 10 most common reasons for consulting are denoted by their Read Code Grouping code:
R207 - Circulatory and respiratory symptoms and signs
R75 – Hypertension
R126 - Diseases of the skin & subcutaneous tissue excluding infections & malignancies
R217 – General abnormal symptoms and signs not elsewhere classified
R209 – Digestive/abdominal symptoms and signs
R203 – Psychological symptoms and signs
R131 – Soft tissue disorders
R46 – Diabetes
R211 - Genitourinary symptoms and signs
R204 – Neurological/musculoskeletal symptoms and signs

The nursing staff in PTI practices are expected to record for all their patient consultations what activity they carried out (if any), alongside the underlying condition necessitating this activity. GPs are only required to record a condition for each consultation. Figure 10 shows the estimated consultation rates (per 1,000 registered patients) for the ten most common activities recorded by practice nurses. Similar to the most common conditions in Figure 8, these analyses are grouped using Read Code Groupings (RCGs) but only take into account the activity Read codes. 'Top 10' activity lists are provided for all nursing disciplines separately for 2003/04 to 2011/12 in an Excel table (397KB). The data show that the activity carried out most frequently during a practice nurse consultation in the year 2011/12 was taking a blood sample. The contact rate for this activity was almost 1½ times higher than for the second-most common activity, which was blood pressure monitoring.

Fig 10. Top 10 activities[1] ranked on practice nurse contact rates per 1,000 registered patients; 2011/12



[1] Based on ISD's Read code groupings (RCGs) - activity groupings only. Further information on RCGs can be found on the PTI website.
[2] NEC = Not Elsewhere Classified
[3] Including smoking cessation advice & bereavement counselling.
[4] Excluding BP & CHD monitoring.

PTI in relation to the Quality and Outcomes Framework (QOF)

For some conditions the consultation rates have changed through their inclusion in QOF. The Quality & Outcomes Framework (QOF) is an element of the new General Medical Services (nGMS) contract that came into effect in April 2004. The QOF measures achievement by general practices against a range of evidence-based indicators. The largest part of the QOF is its 'clinical domain', which comprises an evolving set of indicators relating to people with particular health conditions. For the years 2004/05 and 2005/06 the management of 11 common chronic conditions was included within the clinical domain of the QOF. These include, for example, asthma, diabetes and CHD. The list of conditions and patient groups has been extended in subsequent years, for example to include patients who need palliative care.

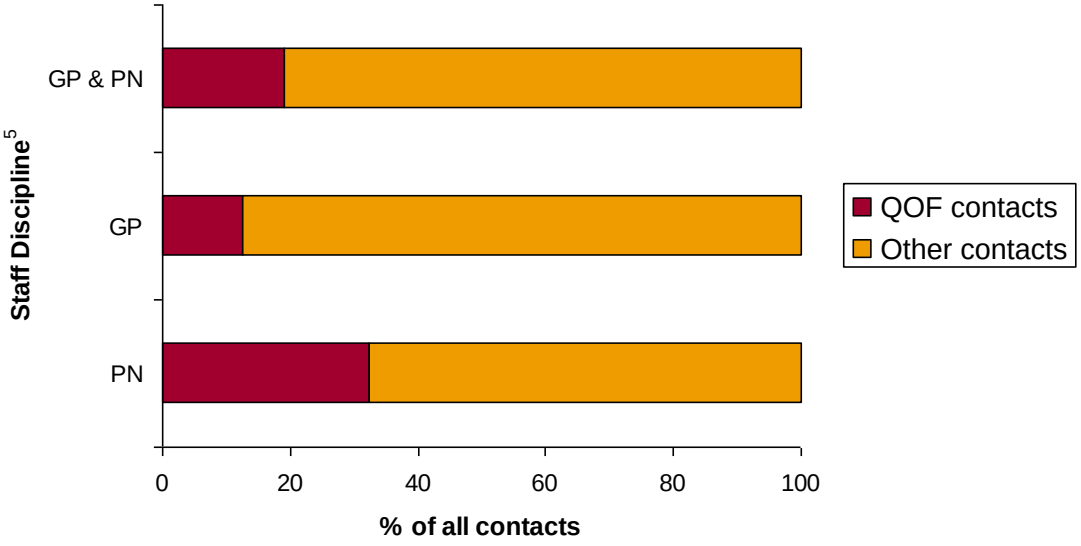
The information collected by general practices for QOF includes a 'register' of patients for each category in all participating practices, and an associated 'prevalence' rate (calculated using the all-ages practice population as the denominator). These QOF 'prevalence' rates are available on the QOF pages of ISD's website at Scotland, NHS Board, Community Health Partnership (CHP) and practice level. What the QOF registers count and why the reported 'prevalence' rates are not necessarily a true population prevalence rate is also explained.

PTI information can supplement QOF prevalence rates by giving further insight into the patient contacts associated with the QOF conditions, taking into account age, gender and levels of deprivation. PTI can also be used to examine co-morbidities (i.e. patients who have consulted for more than one condition), where these co-morbidities are recorded by

the practice in the consultation record. While some QOF registers count the total number of a practice's patients who have at least one of a specified list of conditions, the data reported for QOF cannot be broken down to show the extent to which the prevalence of certain conditions may overlap.

The chronic conditions included in the QOF clinical domain account for a substantial proportion of patient contacts with a GP or practice nurse. Figure 11 provides information on the number of contacts relating to any of the health conditions or other circumstances covered by QOF registers in 2011/12, as a percentage of all contacts.

Fig 11. Conditions included in the QOF clinical domain[1] - contacts as percentage of total contacts[2]; 2011/12



[1] The health conditions and care need categories included in the QOF clinical domain for 2011/12 are: asthma, atrial fibrillation, cancer, CHD, chronic kidney disease, COPD, dementia, depression, diabetes mellitus, epilepsy, heart failure, hypertension, hypothyroidism, learning disabilities, mental health, obesity, palliative care and stroke (incl. TIAs).

[2] "QOF contacts" are defined as consultations that mention at least one health condition or care need covered by the QOF clinical domain. Contacts that relate to other parts of the QOF (for example cervical screening) are not included in this group. "Other contacts" are defined as consultations that do not mention a condition or care need covered by the QOF clinical domain. Any consultation that mentions both a QOF and non-QOF condition will be included in the QOF category only.

Note that if for one consultation both a QOF and a non-QOF condition were recorded, this consultation is included in the QOF category only. Also, the QOF category does not include consultations that might relate to parts of the QOF other than the clinical domain. For example, the QOF incentivises practices to provide additional services such as cervical screening and child health surveillance. However, in this illustrative analysis the additional services are not considered. The information shown in the graph is also available in an Excel table (32KB).

For GPs and practice nurses combined, 19.0% of face to face patient consultations in 2011/12 related to conditions included in the QOF clinical domain. For GPs, around one in eight (12.4%) consultations were for a QOF-related condition. For practice nurses the share was higher, with 32.3% of consultations relating to at least one QOF condition. This is consistent with their significant role in carrying out the routine monitoring and management of chronic conditions.

Defining the number of contacts relating to the QOF clinical domain conditions is somewhat imprecise and is different from the practice workload strictly due to QOF. Our definition includes those contacts that specify a Read code included in either the QOF business rules (version 21.0 – applicable to the 2011/12 QOF year), or in our own Read Code Groupings defining the conditions that are part of the QOF clinical domain. Some Read codes listed in the QOF business rules are administrative codes (e.g. test results), which will not generally be reported with the PTI data on face-to-face contacts. Any patients with these codes, but without activity or morbidity codes relating to the given condition, will be missed (this is a particular issue with Chronic Kidney Disease). Conversely, some codes are specific to a condition but will not trigger inclusion on the QOF register for that condition. By choosing to use the union (combination) of both groups of Read codes, we aim to maximise the number of contacts applicable to the QOF clinical domain conditions and therefore counted under the 'QOF-related conditions' category. However, in this illustrative analysis we have not included in the "QOF contacts" group in Fig 11 any contacts that do not mention a QOF clinical condition but instead mention activities that are covered by other (non-clinical) QOF indicators. For example we have not included contacts relating to cervical screening.

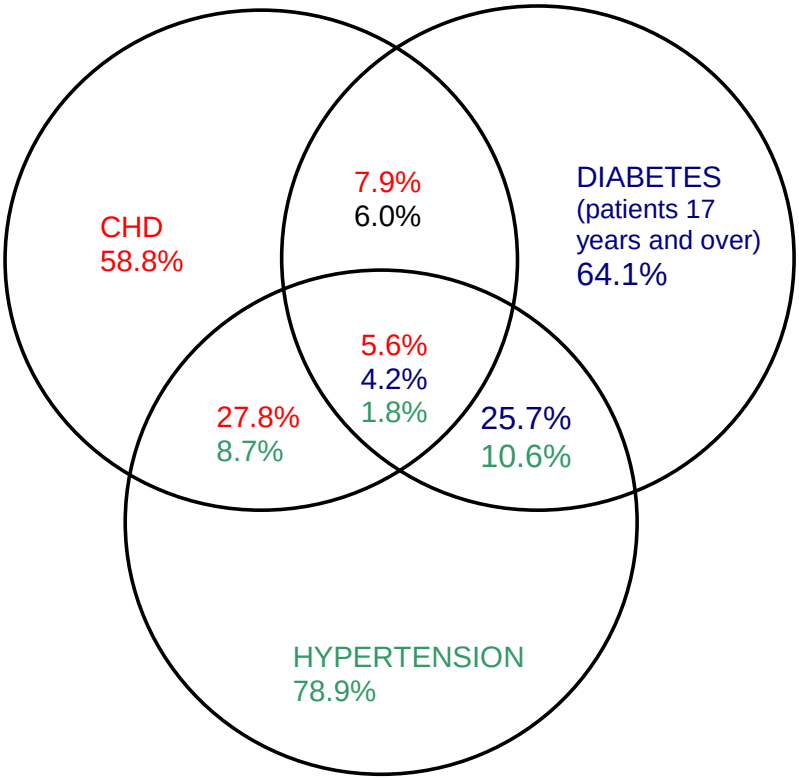
Both PTI and QOF information are used by a variety of different organisations and people as sources of information (from primary care) on the occurrence of health conditions in the population (complementing information from other healthcare settings, registries or other sources). PTI and QOF were developed for different purposes and measure different things. Both are useful in their own right but we would not expect their figures to be the same. The document 'Comparison of QOF and PTI rates for the QOF clinical domains' gives more details on differences between QOF and PTI rates generally and for specific conditions.

Complexity of consultations; co-morbidity

When assessing workload in a GP practice, the number of consultations tells only one side of the story. Consultations can also vary in length and in the complexity of the issues covered. PTI does not collect any information on length of consultations but does allow examination of the number of Read codes recorded in a single consultation. However, this does not necessarily relate to the number of conditions the patient was seen for, because a large number of Read codes can be generated through completing a data entry screen for a review of a single long-term condition. It may therefore be more useful to review instances where patients have consulted for one, two or more conditions during the course of a year.

Figure 12 is an example of such a co-morbidity investigation. It shows the degrees of overlap between patients consulting for any of three of the chronic conditions CHD, diabetes and hypertension, for the year ending March 2012. Percentages are colour coded to show the condition they relate to, so that for example the red figure of 7.9% at the top of the diagram indicates that 7.9% of people consulting for CHD in 2011/12 also consulted for diabetes (without hypertension ever being coded as a reason for consultation in that year). Just over one third (33.4% - i.e. 27.8% + 5.6%) of patients who consulted for CHD in 2011/12 also consulted their practice for hypertension in the year, whilst 29.9% (25.7% + 4.2%) of people consulting for diabetes also consulted for hypertension. These overlaps are not surprising, but they emphasise the close relationship between these conditions and the potential for intervening simultaneously for multiple clinical risk factors.

Fig 12. Percentage of patients consulting for CHD (figures in red), diabetes (figures in blue) or hypertension (figures in green) who also consulted a GP or practice nurse for the other conditions; 2011/12



These figures are also available in an Excel table.

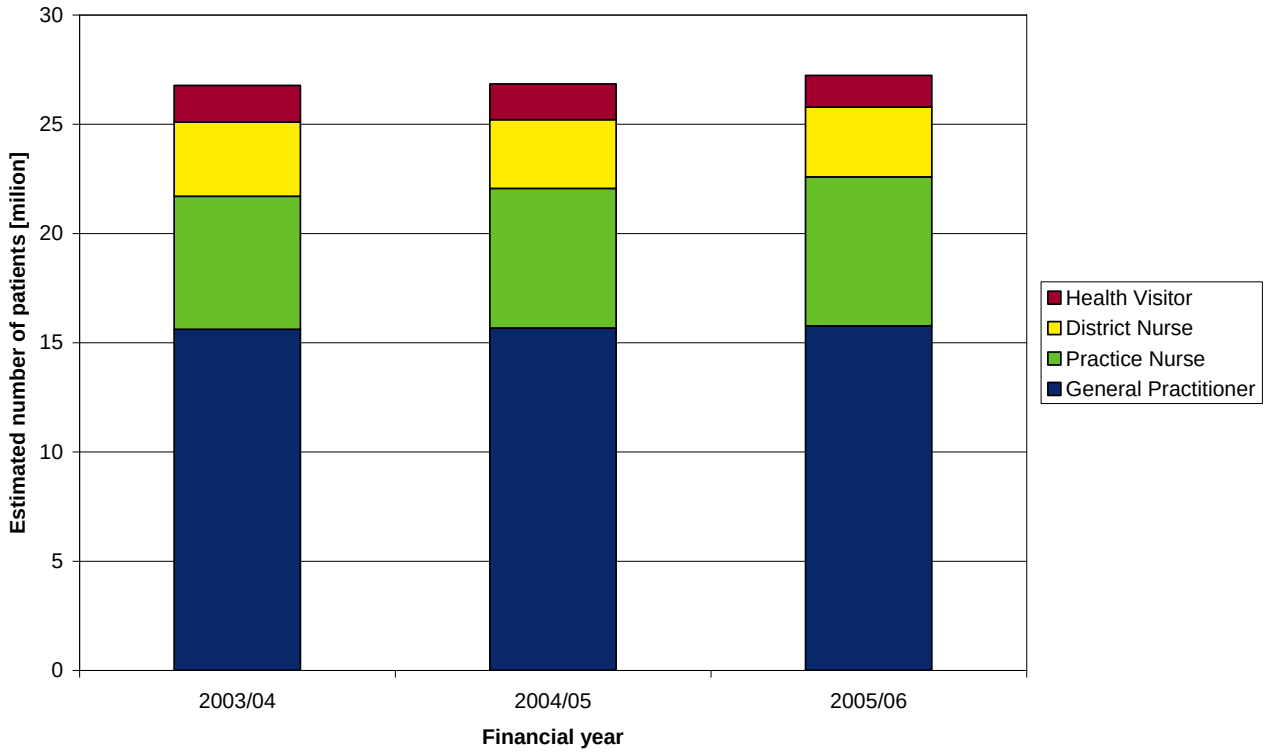
Contribution of other staff disciplines

PTI includes information from the general practice team, which currently includes GPs and practice-employed nurses (PN). From 2003/04 to 2005/06 PTI also collected information on district nurses and health visitors but unfortunately the collection of these data is no longer possible (for more details see 'What is PTI?' on the PTI website). The district nurse and health visitor data was collected from a relatively small number of practices (46, 44, and 44 practices for 2003/04 to 2005/06, respectively). The estimated numbers of consultations from all four clinical disciplines for the three available years is shown in Fig 13. These figures are also available in an Excel table (27KB). The chart shows that in the three years of recording the GPs account for just under 60% of consultations, practice nurses for up to 25%, district nurses for around 12% and health visitors for about 6% of the consultations.

Clearly the inclusion of data on patient consultations with nursing disciplines, over and above GP recording, gives a much more complete picture of patient care. In order to estimate how many patients have been seen overall or for any particular condition, it is likely that more patients would be included if more staff disciplines were included.
For some conditions patient estimates are affected considerably by adding nursing data, in particular the long-term conditions for which much of the day-to-day management is now carried out by practice nurses (see for example Asthma and Diabetes on the PTI website). For other conditions virtually all patients seen by a practice nurse are also seen by a GP, so the patient estimate is similar (see for example Backpain or Depression).

It is rare for patients to be seen exclusively by a health visitor or district nurse, so adding this information does not typically affect the patient estimates. This is discussed in more detail on the page 'The impact of inclusion of more staff disciplines on patient counts' on the PTI website.

Fig 13. Estimated numbers of consultations (millions) for GPs, practice nurses, district nurses and health visitors; financial years 2003/04 to 2005/06



Glossary

A

Annual contact rate - number of contacts, per 1,000 registered patients, per year
Annual patient rate - number of patients seen at least once during the year, per year

B

BP - Blood pressure

C

CHD - Coronary Heart Disease. PTI analysis of this condition includes angina.
COPD - Chronic Obstructive Pulmonary Disease
CMR - Continuous Morbidity Recording. GP-only data collection from 1998 to March 2003. Superseded by PTI from April 2003.
CHI - Community Health Index - a unique individual identifier that allows counts of people registered with practices in Scotland.

D

DN - District nurse

G

GP - General medical practitioner

H

Healthcare assistant - staff member assisting with simple clinical duties including but not limited to taking blood samples
HV - Health visitor

I

ISD - Information Services Division of NHS National Services Scotland

M

Modifier - an indicator that was previously added to a Read code, for example to denote whether the contact was for a new occurrence of a condition or a previously existing condition. Due to the PTI dataset review in 2007, this is no longer recorded or used in analysis.

N

nGMS - new General Medical Services (GMS) contract, introduced in 2004.
NEC – Not Elsewhere Classified

P

Phlebotomist - staff member whose primary duty is taking blood samples
PN - Practice nurse; for PTI purposes defined as practice-employed nurses and their clinical assistants (for example, phlebotomists and health care assistants)
PTI - Practice Team Information

Q

QOF - Quality and Outcomes Framework

R

RCG - Read Code Grouping.

S

SMG - Standard Morbidity Grouping. Superseded by RCGs - Read code Groupings
S&S - Symptoms and signs
SIMD - Scottish Index of Multiple Deprivation; used here was version 2 published in 2009
Standardisation - a method of adjusting figures to take account of differences in age, gender or other factors when two different populations are being compared (see the Statistical Notes on the PTI website)

T

TIA - Transient ischaemic attack. PTI analysis of Stroke includes TIAs.

List of Tables

Table No.	Name	Time period	File & size
1	Overall patient contacts in Scotland; GP & practice nurse	2003/04 to 2011/12	Excel [37KB]
3	Overall patient contacts by practice, GP & practice nurse.	2003/04 to 2011/12	Excel [194KB]
4	Overall contact rates by gender and age group.	2003/04 to 2011/12	Excel [41KB]
5	Population Pyramid	2011/12	Excel [38KB]
	Percentage of practice patients seen, by staff discipline.	2003/04 to 2011/12	Excel [42KB]
7	Consultations by Age and Deprivation	2003-2011	Excel [45KB]
8	Top 10 conditions most seen by GPs and practice nurses.	2003/04 to 2011/12	Excel [442KB]
	Top 10 conditions most seen by GP and PN by age group and gender	2011/12	Excel [161KB]
9	Top 10 activities carried out most by practice nurses.	2003/04 to 2011/12	Excel [397KB]
11	Patient consultations for QOF conditions as proportion of overall contacts	2011/12	Excel [32KB]
12	Comorbidities CHD-Diabetes-Hypertension	2011/12	Excel [24KB]
13	Overall consultations for all 4 disciplines	2003/04 to 2005/06	Excel [27KB]
	Angina.xls	2003/04 to 2011/12	Excel [127KB]
	Anxiety.xls	2003/04 to 2011/12	Excel [148KB]
	Asthma.xls	2003/04 to 2011/12	Excel [148KB]
	Back pain.xls	2003/04 to 2011/12	Excel [147KB]
	Coronary Heart Disease (CHD).xls	2003/04 to 2011/12	Excel [127KB]
	Chronic Obstructive Pulmonary Disease (COPD).xls	2003/04 to 2011/12	Excel [128KB]
	Dementia.xls	2003/04 to 2011/12	Excel [119KB]
	Depression.xls	2003/04 to 2011/12	Excel [139KB]
	Diabetes.xls	2003/04 to 2011/12	Excel [138KB]
	Eating disorders.xls	2003/04 to 2011/12	Excel [106KB]
	Epilepsy.xls	2003/04 to 2011/12	Excel [145KB]
	Hypertension.xls	2003/04 to 2011/12	Excel [138KB]
	Hypothyroidism.xls	2003/04 to 2011/12	Excel [131KB]
	Influenza.xls	2003/04 to 2011/12	Excel [142KB]
	Multiple sclerosis.xls	2003/04 to 2011/12	Excel [123KB]
	Osteoarthrosis.xls	2003/04 to 2011/12	Excel [130KB]
	Stroke.xls	2003/04 to 2011/12	Excel [130KB]

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Further Information

Further information can be found on the PTI Statistics website

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Appendix

A1 – Background Information

Note of Revisions November 2012

PTI aims to continually improve the interpretation of the data and therefore analysis methods are reviewed and sometimes updated. For the publication of 27 November 2012 a number of changes have been made with an appreciable impact on the estimates:

1. The method for dealing with small numbers of registered patients in age-gender-deprivation subcategories within practices that was introduced for the publication of November 2011 has been updated. An error was discovered in the initial implementation leading to subcategories with less than 5 registered patients to be excluded from the analysis. The correction now merges such cells with the nearest neighbouring cell within the same practice-age-gender class and assumes the rate from the merged cell for both original cells. This will affect both patient and consultation estimates and has resulted in higher estimates across the board. For example, the number of consultations per year rose by 1-2% compared to last year's estimates, with practice nurse consultations rising more than GP consultations. For individual conditions the rise could be much larger; generally between 4 and 18%.

2. Also, the estimation of numbers of patients has been updated in that patient age is now defined as age at the 30th of September, instead of the age at the first consultation of the financial year. This was done to be consistent with the reference point of the number of patients registered (the extract from CHI relates to the 30th of September). This resulted in a slight shift in age classes towards the next older age class. Also, it resulted in lower numbers in the youngest age group (0-4 year olds). Babies who were not born yet at the 30th of September but with a consultation later in the year would have a negative age at the 30th of September and were therefore excluded. Overall patient estimates in 0-4 year olds dropped by 9 to 13% compared to November 2011 figures, depending on the year. Consultation estimates remained based on age of consultation so were unaffected by this change.

3. If the number of patients seen over the year was higher than the number of patients registered in the practice on the 30th of September of that year (within age-gender-deprivation category), the number of patients seen was set to the number registered to avoid rates higher than 100%. This can cause a substantial reduction in estimated numbers of patients consulting for patient categories that consult frequently and also change address often, for example 15-24 year old females. In this category the top-level patient estimates dropped by 2 to 6% compared to November 2011 figures.

4. The Read Code Groupings were slightly revised and some individual codes were reallocated to a different group. The change with the largest impact was Read code 663.. "Respiratory disease monitoring", which has as synonym "Asthma monitoring". In the past all recordings of 663.. were grouped under the Read code grouping for Asthma, whereas for this publication only the recordings of the "Asthma monitoring" synonym were grouped under Asthma and any other synonyms were grouped under RCG 235 ("Activities related to circulatory & respiratory S&S"). This resulted in a substantial drop (up to 13%) in estimates for numbers of consultations and patients seen for asthma in the highest age group in some years.

Changes are applied to all new and historic data. Because of these changes figures shown here are not strictly comparable to those published previously. For further information see ‘Note of Revisions’ on the PTI website.

A2 – Publication Metadata (including revisions details)

Metadata Indicator	Description
Publication title	Practice Team Information (PTI) Annual Update (2011/12)
Description	Estimated numbers of patients and consultations with GPs or practice-employed nurses in Scottish General Practices and common reasons for consulting (diagnoses, symptoms, etc) derived from the sample of practices participating in PTI. New figures for 2011/12 and updated figures for the previous eight financial years.
Theme	Health and Social Care
Topic	General Practice
Format	PDF and Excel workbooks
Data source(s)	Practice Team Information (PTI) data set Community Health Index (CHI); Scottish Index of Multiple Deprivation (SIMD) 2009 version 2
Date that data are acquired	Practice data are submitted monthly and built up incrementally into an annual analysis file. The last data was received in July 2012.
Release date	27 November 2012
Frequency	Annual
Timeframe of data and timeliness	Information on years from 1 April 2003 to 31 March 2012. Initially the publication was 11 months after the last data was collected (first 5 years) but the time lag has now decreased to 7 months. The time lag may decrease further over coming years.
Continuity of data	Reports on each year ending 31st March, from 2003/04 onwards.
Revisions statement	These data are not subject to planned major revisions. However, PTI aims to continually improve the interpretation of the data and therefore analysis methods are regularly reviewed and may be updated in the future.
Revisions relevant to this publication	For the publication of 27 November 2012 the method for dealing with small numbers of people in subcategories within practices introduced for the November 2011 publication has been corrected and applied to all new and historic data. This has resulted in higher estimates over the board. Also the age of patients for estimation of numbers of patients has changed from age at first consultation in the year to age at 30th of September. This caused a slight shift in age groups and a decrease in numbers of patients in the lowest age group due to babies born after the 30th of September being excluded. More information can be found in the Note of Revisions on the website or in Appendix 1 in this report.
Concepts and definitions	See Glossary and footnotes of Excel workbooks for further information.
Relevance and key uses of the statistics	Making information publicly available for planning, provision of services, research.

Accuracy	PTI has no means to test if the clinical codes recorded by the clinicians during the consultations accurately reflect the proceedings of that consultation. However, the fact that clinicians are doing their own coding is thought to result in more accurate coding. PTI does monitor data submitted each month and assesses the 'internal' validity of the data by applying simple consistency rules (for example: does every consultation have at least one code that describes a clinical state or 'morbidity' of the patient, which was the reason for the consultation). Practices with large numbers of inconsistencies are followed up and may receive training. Data from practices with very large numbers of inconsistencies would be omitted from the data set.
Completeness	The records submitted to ISD contain ALL clinical codes recorded by participating practices regarding face-to-face consultations. PTI monitors the consistency of numbers of consultations for each clinician submitted on a month-by-month basis, and has a quarterly process of checking the consistency against the number of consultations present in the practice's appointment book. Both under- and over-recording occurs. Most clinicians score within 5% of the expected number, and poorer practice scores are usually due to new staff or particular types of consultations being poorly recorded (e.g. out-of-hours). In these cases training is offered.
Comparability	Comparisons are often made between PTI and QOF. Both are based on extractions from routinely used clinical admin systems in Scottish general practices. However, PTI collects coded information from all consultations in the practices, whereas QOF focuses on the QOF clinical domains only. PTI has limited membership including around 6% of practices in Scotland, all of which are relatively diligent in their clinical coding, whereas QOF collects data from nearly all practices regardless of their coding diligence. Also QOF is first and foremost a payment system and coding guidelines can therefore differ from strictly clinical guidelines. More details on how PTI compares with QOF can be found in the section in this report called 'Comparison of QOF and PTI rates for the QOF clinical domains'. The Primary Care Clinical Informatics Unit (PCCIU) in Aberdeen used to extract information from Scottish GP practices, but only from these on GPASS systems. GPASS has now ceased to exist so PCCIU can no longer provide any data. They did not provide any quality control regarding coding but did send fairly detailed reports on the extracted information back to practices. There are other routine GP extraction systems in the UK

	but these are primarily English and unlike PTI they are system-specific. For example, CPRD and THIN extract information from InPS-Vision systems for research use, and Qresearch uses EMIS data for medical research. Typically the information fed back to practices is limited and there is a variable degree of quality control.
Accessibility	It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines.
Coherence and clarity	Tables and charts are accessible via the ISD website at: http://www.isdscotland.org/Health-Topics/General-Practice/PTI-Statistics
Value type and unit of measurement	Estimated numbers of patients and consultations and rates per 1,000 registered patients
Disclosure	The ISD protocol on Statistical Disclosure Protocol is followed.
Official Statistics designation	Accredited National Statistics
UK Statistics Authority Assessment	Accredited June 2012
Last published	29 November 2011
Next published	26 November 2013
Date of first publication	Web publications since 2004.
Help email	NSS.isdPTIqueries@nhs.net
Date form completed	November 2012

A3 – Early Access details (including Pre-Release Access)

Pre-Release Access

Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", ISD are obliged to publish information on those receiving Pre-Release Access ("Pre-Release Access" refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access and, separately, those receiving extended Pre-Release Access.

Standard Pre-Release Access:

Scottish Government Health Department
NHS Board Chief Executives
NHS Board Communication leads

Extended Pre-Release Access

Extended Pre-Release Access of 8 working days is given to a small number of named individuals in the Scottish Government Health Department (Analytical Services Division). This Pre-Release Access is for the sole purpose of enabling that department to gain an understanding of the statistics prior to briefing others in Scottish Government (during the period of standard Pre-Release Access).

Scottish Government Health Department (Analytical Services Division)

Early Access for Management Information

These statistics will also have been made available to those who needed access to ‘management information’, ie as part of the delivery of health and care:
N/A

Early Access for Quality Assurance

These statistics will also have been made available to those who needed access to help quality assure the publication:
N/A

A4 – ISD and Official Statistics

About ISD

Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

Information Services Division (ISD) is a business operating unit of NHS National Services Scotland and has been in existence for over 40 years. We are an essential support service to NHSScotland and the Scottish Government and others, responsive to the needs of NHSScotland as the delivery of health and social care evolves.

Purpose: To deliver effective national and specialist intelligence services to improve the health and wellbeing of people in Scotland.
Mission: Better Information, Better Decisions, Better Health
Vision: To be a valued partner in improving health and wellbeing in Scotland by providing a world class intelligence service.

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Information Services Division (ISD) is the principal and authoritative source of statistics on health and care services in Scotland. ISD is designated by legislation as a producer of 'Official Statistics'. Our official statistics publications are produced to a high professional standard and comply with the Code of Practice for Official Statistics. The Code of Practice is produced and monitored by the UK Statistics Authority which is independent of Government. Under the Code of Practice, the format, content and timing of statistics publications are the responsibility of professional staff working within ISD.

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- National Statistics (ie assessed by the UK Statistics Authority as complying with the Code of Practice)
- National Statistics (ie legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (ie still to be assessed by the UK Statistics Authority)
- other (not Official Statistics)

Further information on ISD's statistics, including compliance with the Code of Practice for Official Statistics, and on the UK Statistics Authority, is available on the ISD website.

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics. Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.