

Weekend opening in primary care:

analysis of the General Practice Patient Survey

Abstract

Background

Seven-day opening in primary care is a key policy for the UK government. However, it is unclear if weekend opening will meet patients' needs or lead to additional demand.

Aim

To identify patient groups most likely to use weekend opening in primary care.

Design and setting

The General Practice Patient Survey 2014, which sampled from all general practices in England, was used.

Method

Logistic regression was used to measure the associations between perceived benefit from seeing or speaking to someone at the weekend and age, sex, deprivation, health conditions, functioning, work status, rurality, and quality of life.

Results

Out of 881 183 participants who responded to the questionnaire, 712 776 (80.9%) did not report any problems with opening times. Of the 168 407 responders (19.1%) who reported inconvenient opening times, 73.9% stated that Saturday opening, and 35.8% Sunday opening, would make it easier for them to see or speak to someone. Only 2.2% of responders reported that Sunday, but not Saturday, opening would make it easier for them. Younger people, those who work full time, and those who could not get time off work were more likely to report that weekend opening would help. People with Alzheimer's disease, learning difficulties, or problems with walking, washing, or dressing were less likely to report that weekend opening would help.

Conclusion

Most people do not think they need weekend opening, but it may benefit certain patient groups, such as younger people in full-time work. Sunday opening, in addition to Saturday, is unlikely to improve access.

Keywords

appointments and schedules; delivery of health care; general practice; health services accessibility; health services needs and demand; health priorities; primary health care.

INTRODUCTION

Seven-day working across the NHS is a flagship policy of the UK government.¹ The argument for 7-day working in hospitals is clearer than for primary care, with previous studies identifying a significant rise in hospital mortality over the weekend period.^{2,3} According to the Department of Health, 7-day opening in primary care aims to allow 'hard working people' to 'see their GP seven days a week and out of office hours'.¹ Some argue that it will reduce pressure on hospitals, while others argue that it is unaffordable, mismatched with patient need, and will raise expectations.^{4,5} Most GPs do not agree with the policy, with only 2% of a British Medical Association (BMA) survey agreeing that practices should offer 7-day opening.⁶

Observational evidence supports the link between improving access to primary care and reducing hospital admissions.^{7,8} General practices that provided more timely access to primary care were found to have significantly fewer self-referred emergency department visits.⁷ A qualitative study also found that perceived difficulty in accessing general practice was a reason given for attending accident and emergency (A&E) departments.⁹ However, interventional studies that improve access to primary care have been found to have little impact on hospital use. For example, walk-in centres were launched to provide access to primary

care without needing to book, but a national evaluation showed that they did not have any statistically significant impact on A&E attendances.¹⁰

Pilots of 7-day opening have reportedly faced problems in the UK. Some clinical commissioning groups have encountered difficulties such as opposition from GPs,¹¹ little impact on A&E admissions,¹² and lack of demand on Sundays.¹³ Little research has looked at which patient groups would benefit from 7-day opening in primary care; it is unclear if it would primarily improve convenience for working patients or meet the needs of current high-users.

This study aims to identify which patient groups are likely to use weekend opening in primary care. It utilises a cross-sectional dataset of a national patient survey (General Practice Patient Survey [GPPS])¹⁴ in England to look at associations between patients' preferences for weekend opening and personal characteristics. Associations are tested between 7-day opening and age, sex, rurality, deprivation, health conditions, patient functioning, and work status. These factors were chosen as potential markers of high health needs or difficulties accessing primary care.¹⁵ Differences between Saturday and Sunday opening are explored.

METHOD

Responder-level data collected in the 2014 sweep of the GPPS was used. Over 2.6 million

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Submitted: 28 July 2015; **Editor's response:** 17 September 2015; **final acceptance:** 13 October 2015.

©British Journal of General Practice

This is the full-length article (published online 6 Nov 2015) of an abridged version published in print. Cite this article as: **Br J Gen Pract 2015; DOI: 10.3399/bjgp15X687673**

How this fits in

Seven-day opening in primary care is a flagship policy of the UK government. No previous research has looked at who would benefit from 7-day opening. This study found that most people do not think they need weekend opening, but it may benefit certain patient groups, such as younger people in full-time work. Results showed that Sunday opening, in addition to Saturday, is unlikely to improve access.

postal questionnaires were sent out across two waves of the GPPS, in January to March and July to September 2014. Patients were sampled using registration records held by the Health and Social Care Information Centre (HSCIC). Surveys were sent to a proportionally stratified (by age and sex),

unclustered sample of patients from all 8011 practices in England. The inclusion criteria for the sample were a valid NHS number, being registered with the general practice continuously for at least 6 months, and ≥ 18 years. Reminders were sent if there was no response. Patients had the option of completing the survey on paper, online, or by phone and in up to 14 different languages. The response rate was 33%. Full technical details have been previously published.¹⁶ All data were non-identifiable and no ethical approval was required to use the data. Responder GPPS data is held by Ipsos MORI, and NHS England approval was granted to use the data.

The questionnaire contained 62 questions relating to a patient's demographics and experience of general practice. In regards to 7-day opening, the survey asked 'Is your GP surgery currently open at times that are convenient for you?' If a patient answered 'no', they were prompted to answer a further question: 'Which of the following additional opening times would make it easier for you to see or speak to someone?' The responses, to which a patient could choose more than one, were: 1) before 8 am, 2) at lunchtime, 3) after 6.30 pm, 4) on a Saturday, 5) on a Sunday, or 6) none of these. Therefore, data on weekend opening were only available for patients who answered 'no' to the question 'Is your GP surgery currently open at times that are convenient for you?'

Additional questions asked about ethnicity, working status, ability to get time off work to visit a GP, health conditions, functioning, and quality of life (EQ-5D-5L score). An Index of Multiple Deprivation¹⁷ score was calculated for each patient based on their postcode. Practice rurality was based on the HSCIC classification (combination of average distance of patient postcodes from their GP practice and average population density).

A binary variable was created indicating if a patient thought that weekend opening would help them see or speak to someone by recoding responses that either Saturday or Sunday opening would make it easier for them to speak to someone. The number of health conditions a patient reported was added together and a multimorbidity variable was created that identified patients with two or more long-term conditions. Similarly the number of moderate or severe functional impairments was counted. Age was re-categorised from deciles to ≤ 74 years, 75–84 years, and ≥ 85 years, reflecting variations in the effect of age on weekend opening.

Table 1. Total number and proportion of patient demographics who reported that weekend opening would help

	Weekend opening would help, <i>n</i>	Total number, <i>N</i>	%
Age, years			
18–24	7754	10 567	73.4
25–34	18 885	24 734	76.4
35–44	24 593	31 725	77.5
45–54	33 449	42 990	77.8
55–64	26 840	34 558	77.7
65–74	10 005	13 476	74.2
75–84	3744	5570	67.2
≥ 85	1546	2784	55.5
Sex			
Male	55 786	74 710	74.7
Female	71 047	91 753	75.9
Rural			
Rural	18 633	24 026	77.4
Urban	109 523	144 381	77.6
Deprivation			
Most deprived	39 517	54 137	73.0
Moderately deprived	44 043	57 476	76.6
Least deprived	44 532	56 708	78.5
Ethnicity			
White	99 860	130 509	76.5
Mixed	8483	11 192	75.8
Asian	8014	10 131	79.1
Black	3485	4859	71.7
Chinese or other	6372	8984	70.9
Working status			
Full-time employment	78 792	100 901	78.1
Part-time employment	17 625	22 927	76.9
Full-time education	2714	3582	75.8
Unemployed	3377	5087	66.4
Permanently sick or disabled	2722	4034	67.5
Fully retired	12 782	18 015	71.0
Looking after the house	4441	5739	77.4
Not able to take time off work	43 969	55 197	79.7

Table 2. Total number and proportion of patient's health problems and functioning who reported that weekend opening would help

Variable and category	Weekend opening would help, <i>n</i>	Total number, <i>N</i>	%
Cardiometabolic			
Angina	4060	5393	75.3
Diabetes	7158	9252	77.4
Hypertension	17 903	23 331	76.7
Neurological			
Alzheimer's disease	461	778	59.3
Epilepsy	1022	1360	75.2
Learning difficulties	823	1212	67.9
Long-term neurological problems	2115	2709	78.1
Musculoskeletal			
Arthritis or long-term joint problems	12 293	16 286	75.5
Long-term back problems	11 274	14 648	77.0
Visual-auditory			
Blindness or severe visual impairment	855	1280	66.8
Deafness	3185	4495	70.9
Respiratory			
Asthma or long-term chest problem	12 158	15 466	78.6
Cancer			
Cancer past 5 years	3028	3805	79.6
Kidney or liver			
Kidney or liver disease	1688	2239	75.4
Mental health			
Long-term mental health problems	4183	5520	75.8
Any other long-term condition	15 708	19 716	79.7
None of the above conditions	55 288	72 757	76.0
Multimorbidity			
Two or more health problems	23 712	30 652	77.4
Functioning			
Moderate or severe walking impairment	4584	6767	67.7
Moderate or severe problems washing or dressing			
Moderate or severe problems doing usual activities	11 847	16 337	72.5
Moderate or severe pain/discomfort	22 376	29 822	75.0
Moderate or severe anxiety or depression	14 207	18 798	75.6

Statistical analysis

Calculations were made for the proportion of each patient group (for example, patients with diabetes or those living in rural areas) that reported weekend opening would help them see or speak to someone, and used binary logistic regression with multiple adjustment to measure associations. The primary analysis was to look at the association between perceived benefit from weekend opening and age, deprivation, health problem, functioning, quality of life, and working status. Logistic regression models provided odd ratios with 95% confidence intervals and were adjusted for age, sex, deprivation, ethnicity, and rurality to reflect possible confounders. Ethnicity was categorised as white, mixed, Asian, black, and Chinese, or other.

Interactions were explored because of previous research suggesting older adults, rural residents, and deprived populations

were at higher risk of poor access.¹⁵ Potential interactions were explored between covariates using the interaction command in Stata 13. Interactions were assessed in a fully adjusted model. Interactions tested were: rurality and deprivation; rurality and age; deprivation and age; and deprivation and quality of life. Models with and without interaction terms were compared using the likelihood ratio test. All analyses were undertaken in Stata (version 13).

RESULTS

There were 881 183 responders in 2014, of whom 168 407 reported that their GP practice was not open at a convenient time (19.1% of total responders). The proportion of responders who did not feel that their practice was open at a convenient time and reported that weekend opening on either Saturday or Sunday would make it easier for them to see someone was 76.1%. A higher proportion of patients preferred Saturday opening (73.9%) compared with Sunday opening (35.8%). Only 33.6% of responders felt opening on both Saturday and Sunday would make it easier for them to see the GP. Furthermore, only 2.2% of responders who reported that their practice was not open at a convenient time felt that Sunday, but not Saturday, opening would make it easier for them.

Tables 1 and 2 present the proportion of each patient group who felt that their GP practice was not open at a convenient time and for whom weekend opening would make it easier for them to see or speak to someone. The lowest proportion of patients who felt that weekend opening would be beneficial were those aged ≥ 85 years (55.5%) and those with Alzheimer's disease (59.3%). The highest proportion was in people who could not take time off work (79.7%) and those who had another long-term condition (79.7%). Table 3 shows the odds ratio for the logistic regression models. Older people, compared with younger people, had lower statistically significant odds of perceived benefit from weekend opening to see or speak to someone. Females had statistically significantly higher odds compared with males. Increasing deprivation was associated with a small statistically significant perceived benefit from weekend opening.

With regards to health conditions, responders with angina, diabetes, hypertension, long-term neurological problems, arthritis, long-term back problems, asthma, cancer, kidney or liver disease, or any other long-term condition were associated with statistically significant

Table 3. Association between patient characteristics and weekend opening

Variable	Crude OR (95% CI)	Adjusted OR (95% CI) ^a
Age, years		
≤74	1 (baseline)	1 (baseline)
75–84	0.85 (0.82 to 0.89)	0.85 (0.82 to 0.89)
≥85	0.61 (0.57 to 0.64)	0.61 (0.57 to 0.64)
Female	1.16 (1.14 to 1.19)	1.18 (1.16 to 1.21)
Deprivation	0.99 (0.99 to 0.99)	0.99 (0.99 to 0.99)
Ethnicity		
White	1 (baseline)	1 (baseline)
Mixed	0.96 (0.92 to 1.01)	0.97 (0.93 to 1.02)
Asian	1.16 (1.11 to 1.22)	1.23 (1.17 to 1.30)
Black	0.78 (0.73 to 0.83)	0.84 (0.79 to 0.90)
Chinese or other	0.75 (0.71 to 0.79)	0.80 (0.76 to 0.84)
Rural	1.10 (1.06 to 1.14)	1.01 (0.98 to 1.05)
Cardiometabolic		
Angina	0.94 (0.88 to 1.00)	1.23 (1.15 to 1.32)
Diabetes	1.06 (1.01 to 1.11)	1.22 (1.16 to 1.29)
Hypertension	1.02 (0.99 to 1.06)	1.17 (1.13 to 1.21)
Neurological		
Alzheimer's disease	0.45 (0.39 to 0.52)	0.64 (0.52 to 0.78)
Epilepsy	0.93 (0.82 to 1.06)	0.98 (0.86 to 1.11)
Learning difficulties	0.65 (0.58 to 0.73)	0.72 (0.63 to 0.81)
Long-term neurological problems	1.10 (1.00 to 1.21)	1.16 (1.05 to 1.27)
Musculoskeletal		
Arthritis or long-term joint problems	0.94 (0.91 to 0.98)	1.12 (1.07 to 1.17)
Long-term back problems	1.04 (0.99 to 1.08)	1.12 (1.07 to 1.17)
Visual-auditory		
Blindness or severe visual impairment	0.62 (0.55 to 0.70)	0.87 (0.77 to 1.04)
Deafness	0.74 (0.70 to 0.79)	1.02 (0.95 to 1.11)
Respiratory		
Asthma or long-term chest problem	1.15 (1.11 to 1.20)	1.17 (1.12 to 1.21)
Cancer		
Cancer in past 5 years	1.21 (1.12 to 1.31)	1.37 (1.26 to 1.50)
Kidney or liver		
Kidney or liver disease	0.95 (0.86 to 1.04)	1.11 (1.01 to 1.24)
Mental health		
Long-term mental health problems	0.96 (0.91 to 1.03)	0.97 (0.91 to 1.03)
Any other long-term condition	1.24 (1.20 to 1.29)	1.26 (1.22 to 1.31)
None of the above conditions	0.96 (0.93 to 0.98)	0.86 (0.84 to 0.88)
Number of conditions	1.02 (1.01 to 1.04)	1.11 (1.10 to 1.12)
Moderate or severe walking impairment	0.73 (0.70 to 0.76)	0.95 (0.91 to 0.99)
Moderate or severe problems washing or dressing	0.64 (0.60 to 0.67)	0.84 (0.79 to 0.89)
Moderate or severe problems doing usual activities	0.80 (0.77 to 0.83)	1.01 (0.97 to 1.05)
Moderate or severe pain/discomfort	0.92 (0.89 to 0.95)	1.06 (1.03 to 1.10)
Moderate or severe anxiety or depression	0.95 (0.92 to 0.98)	1.02 (0.98 to 1.06)
Number of functional impairments	0.94 (0.93 to 0.95)	1.01 (1.00 to 1.02)
Quality of life (EQ-5D-5L)	1.28 (1.21 to 1.35)	0.91 (0.86 to 0.97)
Full-time employment	1.31 (1.28 to 1.34)	1.21 (1.18 to 1.25)
Not allowed to take time off work	1.20 (1.17 to 1.24)	1.20 (1.16 to 1.23)

^aAdjusted for age, sex, deprivation, rurality, and ethnicity. OR = odds ratio.

higher odds for perceived benefit from weekend opening to see or speak to someone. Responders with conditions less compatible with full-time employment such as Alzheimer's disease, learning difficulties, moderate-to-severe walking impairments, and moderate-to-severe problems washing

or dressing were associated with statistically significant lower odds for perceived benefit from weekend opening. As quality of life increased there was a statistically significant decreased odds and those who work full time or were not allowed to take time off work had higher odds.

Table 4. Interactions between patient characteristics

Interaction	Odds ratio (95% CI)
Rural and deprivation	1.00 (1.00 to 1.00)
Rural and age	
≤74 years	1 (baseline)
75–84 years	1.25 (1.12 to 1.41)
≥85 years	1.42 (1.21 to 1.68)
Deprivation and age	
≤74 years	1 (baseline)
75–84 years	0.99 (0.99 to 1.00)
≥85 years	0.99 (0.98 to 0.99)
Deprivation and quality of life	0.99 (0.99 to 1.00)

^aAdjusted for age, sex, deprivation, ethnicity, and rurality.

There was no interaction between deprivation and rurality, age and deprivation, and quality of life and deprivation (Table 4). Older responders living in rural areas were more likely to perceive benefit from weekend opening to see or speak to someone.

DISCUSSION

Summary

The majority of responders (80.9%) did not perceive any problem with the convenience of general practice opening. Of the one in five people (19.1%) who did perceive a problem, most stated that Saturday opening (73.9%) would make it easier for them to see or speak to someone. Only one-third (35.8%) suggested Sunday opening would be helpful and just 2.2% felt that Sunday, but not Saturday, opening would make it easier for them to see or speak to someone. Weekend opening is most wanted by younger people, those with a higher quality of life, those who work full time, and those who cannot get time off work. People with health or functional problems that are less compatible with full-time employment, such as Alzheimer's disease, learning difficulties, or problems with walking, washing, or dressing, are less likely to want weekend opening.

Strengths and limitations

Strengths of this study include a large sample size with over 881 000 responders. These results are conservative estimates because they only include the 19.1% of patients who did not report that their practice was open at a convenient time. The questionnaire was available in a number of different formats (online, telephone, or paper) and in 14 different languages with reminders sent for non-responders to reduce participation bias and increase response rate.

Limitations include a response rate of 33% meaning that a degree of participation bias is likely. For example, those with strong views, either positive or negative, may have been more likely to take part. Furthermore, the survey did not include patients who did not have a registered GP or had recently moved GP practice. This reduces the likelihood of certain populations taking part, such as residents without a permanent home, immigrants, and those with disorganised lives. The results of this study are based on self-reported perception about whether weekend opening would be helpful. It is unknown if this would reflect future attitudes and utilisation of services.

Practice rurality was used as a proxy for responder rurality. There is a chance that a patient living in a rural area is registered with a GP in an urban area. However, the rurality index included a broad definition of rurality including rural towns, villages, and hamlets. Responder's postcode was used to calculate an Index of Multiple Deprivation score. Using postcodes raises the possibility of ecological fallacy, where inferences are made about an individual based on a group they belong to.

Comparison with existing literature

There is a lack of research evaluating 7-day opening in primary care. Lagarde and colleagues undertook discrete choice experiments with 1706 people who were a representative sample of the population of England.¹⁸ The authors found that, in general, responders did not regard weekend opening as important when compared with other factors. The authors undertook a latent class analysis and found that a 'convenience shoppers' group were most likely to prioritise weekend opening. This group included those who lived in rural areas without a long-standing health

problem and were >65 years of age. This current study found that younger people and those with certain long-term conditions were more likely to perceive benefit to see or speak to someone from weekend opening. This may be because the study only included patients who felt that their GP practice was not open at a convenient time.

Implications for research and practice

Only one in five responders felt that opening times were inconvenient and most people favoured Saturday opening. A lack of demand, especially on Sundays, led to a decision to stop a 7-day GP access scheme in North Yorkshire, UK.¹³ Therefore, it is likely that Saturday opening would meet the needs of patients who cannot see their GP during the week because of employment, with Sunday opening providing little additional benefit.

Weekend opening is less likely to be wanted by patients who are older or with health or functional problems that are less compatible with full-time employment, such as Alzheimer's disease or learning difficulties. Currently the highest consultation rates in general practice in the UK occur in older patients.^{19,20} The results of this study suggest that weekend opening would be most helpful to younger people.

Funding of weekend opening has been contentious.²¹ Cowling and colleagues calculated that for general practice to offer 7-day opening from 8 am to 8 pm, as proposed by the UK government, the current GP practice opening hours would have to

increase by 120% (from 342 857 hours per week to 753 732 hours per week).²² This is in the context of a fall in total investment in general practice by 6% in real terms between 2005–2006 and 2013–2014²³ in addition to a GP workforce crisis and increased workload.⁶ A recent BMA survey found that 34% of GPs were hoping to retire in the next 5 years and 37% felt the current workload was unmanageable.⁶ This suggests that for many practices there is not currently capacity to provide weekend opening in addition to weekday services. Therefore, if these practices were required to open at weekends a reduction in weekday services would be necessary. Perversely, this could reduce access to patients who find it easier to attend the practice during the working week, such as older people who rely on transport services or carer services that mainly operate during working hours.

This study analysed self-reported data about the perceived benefit from weekend opening to see or speak to someone. Robust evaluations are needed of local initiatives that are trialling 7-day opening. These should include comparison groups, economic evaluation to assess the cost-effectiveness of weekend opening, and be made publicly available. An impact assessment is needed to explore the impact that 7-day opening would have on weekday services, access for those with the greatest healthcare needs, and urgent care use. Innovative solutions are needed to help those who cannot take time off work to see their GP.

Funding

No external funding.

Provenance

Freely submitted; externally peer reviewed.

Competing interests

The authors have declared no competing interests.

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