Public attitudes towards community pharmacy attributes and preferences for methods for promotion of public health services

Saramunee K, Mackridge AJ, Dewsbury C, Cutler S, Krska J.

Abstract

Objective: To identify attitudes towards pharmacy characteristics and promotional methods for selected pharmacy public health services (lifestyle advice and screening for cardiovascular risk factors) among different sectors of the general public.

Study design: Cross-sectional survey, using a previously validated questionnaire.

Methods: Three survey methods were used, across 15 areas of England, to maximise diversity: face-to-face, telephone and self-completion of paper questionnaires. Responses to closed questions regarding characteristics and promotion were quantified and differences among sub-groups explored by univariate and multivariate analysis.

Results: In total, 2,661 responses were available for analysis: 2,047 face-to-face, 301 telephone and 313 paper. There were strong preferences for a pharmacy near to home or doctor's surgery and for long opening hours, particularly among employed people and non-whites. Fifty percent preferred not to use a pharmacy in a supermarket, particularly older people, the retired, those of lower education and frequent pharmacy users. Personal recommendation by health professionals or family/friends was reported as most likely to encourage uptake of pharmacy public health services, with older people and males being less likely and frequent pharmacy users more likely perceive any promotional method as influential. Posters/leaflets were preferred over mass media methods, with fewer than 30% perceiving the latter as potentially influential.

Conclusion: Pharmacists, pharmacy companies and service commissioners should use promotional methods favoured by potential users of pharmacy public health services and be aware of differences in attitudes when trying to reach specific population sub-groups. For personal recommendation to be successful good inter-professional working and a pro-active approach to existing customers are needed.

Keywords: general public, preference, pharmacy characteristics, promotion, cardiovascular, England

Introduction

Community pharmacists' roles have changed in the last few decades and in many countries they now make significant contributions to public health[1]. Published evidence to date shows that community pharmacists are able to provide an extensive range of public health services[2-4]. In England, community pharmacy has been promoted by both professional organisations and government as an ideal setting to provide a wide range of services beyond medicines supply[5,6]. In particular, public health services related to cardiovascular disease (CVD) and its associated risk factors have been highlighted as ideally suited to delivery via community pharmacy. However, the general public are often unaware of these services[3,7] and previous qualitative work suggests that advertising might increase their uptake[8].

Enhancing service awareness and uptake requires an understanding, not only of the most effective promotional methods, but also particular characteristics of the products being marketed, the product being 'community pharmacy' in this case. Published evidence on both these issues is very limited, with no work having explored the best promotional techniques for pharmacy services and little looking at the characteristics of pharmacies which may affect their use. A Scottish survey indicated that recommendation by pharmacists would be likely to make people aware of weight management services in community pharmacy[9], whilst an Australian study found convenient location, friendly staff and quality of service to be characteristics that attract people to use particular community pharmacies[10].

The present study aimed to identify the pharmacy characteristics perceived as desirable by different sectors of the general public and the promotional methods for pharmacy public health services they consider as likely to influence them.

Methods

Instrument development

The research team developed the instrument iteratively based on the available literature,[2,7,8] drawing extensively on previous qualitative work with members of the public. Development included testing the instrument for face validity to evaluate content and understanding with ten non-pharmacist volunteers. Further piloting was then conducted to test content validity and instrument reliability by (a) interviewer-assisted and self-completion, with 100 members of the public recruited in a city centre location and (b) cognitive interview with 15 further members of the public. Full details of the instrument development are provided elsewhere[11].

This study focused on services in relation to cardiovascular disease (CVD) risk factors: smoking cessation, sensible drinking, losing weight, heart health advice, blood pressure, blood sugar and cholesterol checks, which form the basis of a national CVD prevention programme in England, the NHS Health Check[12].

In relation to using one of these services, the questionnaire included a series of statements incorporating characteristics of community pharmacies and their staff indicating attitudes towards each, phrased in terms of preferences, needs or trust (as shown in Table 3), with which respondents were asked to indicate their agreement (using the options agree, don't mind, disagree). A list of potential promotional methods was provided (as shown in Table 4), with which respondents were asked to indicate the likelihood of each encouraging them to access these services (using the options yes, maybe, no). Additional comments on promotional techniques perceived as likely to succeed were elicited through an open question. The questionnaire also contained the following demographic variables: gender, age group, ethnicity, education, work status, job for assigning socioeconomic status and postcode

for assigning deprivation status. A further question sought information on frequency of pharmacy use, which was also used to analyse responses.

Survey administration

This large survey was conducted in multiple locations throughout England during 2011 and 2012 using various recruitment methods in order to maximise diversity of the sample[13]. Inclusion criteria were members of the general public aged 18 years or over, with anyone working as a health professional being excluded.

Method 1 used face-to-face interviews conducted either in public places or by door-to-door recruitment in five locations (Sefton, Wirral, Liverpool, South East London and Kent). The sampling approach was devised to maximise representation in terms of age, gender and deprivation status.

Method 2 involved telephone interviews using either random number generation, (random generation of dialling codes, followed by random generation of numbers within each dialling code) or random selection of numbers from residential telephone directories. This method was used in a total of 11 areas of England: King's Lynn, Lynton, Moretonhampstead, Penzance, Worthing, Barnsley, Barrow-in-Furness, Basildon, Gloucester, Morpeth and Sefton.

Method 3 was only conducted in one area (Sefton) and involved self-completion of the questionnaire, which was distributed by post, using postcode address file, and through organisations, such as libraries, local businesses and community centres.

A favourable opinion was obtained from the University Research Ethics Committee prior to study commencement (Ref: 09/PBS/005, Approved date: 7th August 2009).

Data analysis

Data were entered into SPSS version 20.0, with a 10% sample checked for accuracy by a second researcher.

Socioeconomic status (SES) was grouped into three categories based on occupation; lower (un-skilled/manual occupations); middle (skilled manual/administrative occupations); and higher (managerial/professional occupations). Postcode was used categorize respondents into deprivation quintiles (1 = most deprived; 5 = least deprived), based on the Index of Multiple Deprivation (IMD).

Chi-square tests were used to identify associations between demographic variables and attitudes towards pharmacy characteristics and preferences for advertising techniques, setting a value of $p<0.001$ as reaching statistical significance, given the large number of associations tested. Responses for age, ethnicity and educational level were re-categorised into fewer groups to enable analysis. Pharmacy user category was defined by the frequency of pharmacy visits in the last 6 months: *frequent users* were those who had visited a pharmacy once a month or more, while *infrequent users* were those who visited less than once a month, or had not used a pharmacy in the past 6 months. Binary logistic regression was used to assess the key demographic variables influencing positive views ('yes' versus 'no'/'maybe') towards the different suggested promotional techniques.

Free-text comments were analysed by developing categories using a constant comparison approach then assigning each to a category.

Results

Response rates

A total of 2,661 responses were available for analysis: 1,946 face-to-face, 301 telephone and 407 paper questionnaires. The estimated response rates were: 18.7% face-to-face, 25.1% telephone and 18.3% paper.

Demographic details of respondents

Just over half (57%) the respondents were female, spanning a variety of age groups and ethnicities, with approximately 34% having a university-level education. Other demographic characteristics are shown in Table 1. The sample was broadly representative of the population in England in terms of gender and ethnicity, but may have been over-representative in terms of people aged below 25 and those of university-level education[14].

Almost all used a pharmacy fairly often, with around half (48.8%) being classified as *frequent users* (Table 2). The key demographic characteristics were significantly inter-correlated: age, education, employment, deprivation and SES. Frequency of pharmacy use was also related to most of these characteristics, with higher use being exhibited among females, older people, retired, those with lower educational attainment, higher level jobs and white ethnicity.

Attitudes towards different pharmacy characteristics

Respondent attitudes towards different pharmacy characteristics, relating to location, opening hours, staffing, privacy and confidentiality are shown in Figure 1.

Strongest overall preferences in terms of pharmacy characteristics were pharmacies: near to the respondent's home (84.7%); near to respondent's general practitioner's surgery (67.8%); and open on Saturdays (63.6%). Of the 1,300 respondents in full or part-time work, 591 (45.5%) indicated a preference for pharmacies near to their workplace. Over half of respondents (56.2%) indicated a preference for using the same pharmacy each time, and just

over two-thirds of respondents expressed a preference for pharmacies where they know the pharmacist (35.4%) or the staff know them (34.4%). Almost all respondents indicated they trusted both the pharmacist (89.6%) and the pharmacy staff (84.9%) to keep their personal information confidential.

Those respondents who preferred to use the same pharmacy were over 65 years of age, educated to primary/secondary level, retired and frequent pharmacy users (Table 3). These groups also preferred pharmacies owned by the pharmacist working there, and a pharmacy where they know the pharmacist or the staff know them. They showed a negative preference for supermarket pharmacies, as did those of higher socioeconomic status (SES) and those living in areas of lowest deprivation. SES and deprivation had relatively little relationship with other preferences. Perceived needs for a pharmacy open on Saturdays, Sundays or in the evenings were expressed more by respondents in work and of non-white ethnicity. Females and non-white respondents were slightly more likely to prefer a pharmacy where the pharmacist is the same sex as them. Preferences for speaking in a private room were highest among retired and female respondents. Trust in pharmacists and staff to maintain confidentiality was highest among respondents who were retired, over 65, with lower educational attainment or white.

Preferences for promotional methods

Overall views on promotional methods for pharmacy public health services are shown in Figure 2. Personal recommendation from either health professionals (89.4%) or friends and family (86.5%) were most frequently selected as being likely or possibly likely to influence, followed by posters in doctors surgeries (76.7%) or pharmacies (71.0%) and healthcare websites (65.0%), with fewer than 25% selecting mass-media methods of promotion, such as newspapers or radio.

Sub-group analysis (Table 4) showed that females would be more likely than males to use a pharmacy public health service following: recommendations from either health professionals or family and friends; seeing posters in surgeries or pharmacies; and, to a lesser extent by leaflets through their door. Recommendations from health professionals or family and friends were also more likely to influence younger people, university-educated people compared to those with less educational attainment and those working part-time or not in employment. Retired people reported being least likely to be influenced by all methods, especially mass-media and posters/leaflets outside health settings. Leaflets through the door and free newspapers were reported as most likely to influence the middle-age group (35-65 years). Respondents of non-white ethnicity were more likely than those of white ethnicity to report being influenced by TV, websites and e-mail promotion. Websites were particularly favoured by those with a university-level education.

When considered alone, frequency of pharmacy use did not appear to show any correlation with promotional preferences. However, using binary logistic regression, age and frequency of pharmacy use were the key variables which affected responses, with frequent pharmacy use and younger age groups being more likely to respond to a wide range of promotional methods than older respondents or infrequent pharmacy users (Table 5). Recommendations from friends and family were most likely to appeal to females and those of higher educational level, while recommendations from healthcare professionals were most likely to appeal to those in part-time work. Promotion via a local newspaper, radio or email showed no significant differences in preferences related to demographic characteristics.

Additional comments on promotion of pharmacy services

A total of 219 comments were received related to promotion of pharmacy public health services. Of these, 66 (30%) were in favour of promotion generally or increasing promotion.

A further 33 (15%) provided comments relating to the method of promotion, 12 of whom indicated that word of mouth was the preferred method. Several expressed views on the need for doctors to support pharmacy services. Other suggestions include posters in public places and using social media. Seventeen (8%) concerned promotional material content, including prices, opening hours/rotas need for being up to date and promoting the pharmacist's availability.

Conversely 45 (21%) comments were against promotion of pharmacy services, expressing concerns about the costs of such activities that promotion was unprofessional or intrusive and no guarantee of quality. Others expressed the need for caution in the way services are promoted, including potential for conflict with doctors and the need for regulation and constraint. There were 18 (8%) comments indicating other factors were more influential, in particular convenience, recommendations from doctors or quality of service. Example of comments are presented in Table 6.

Discussion

This survey included a large sample of the general public, almost half of whom indicated they visit a community pharmacy at least once a month, similar to a previous study in England[15]. Location and accessibility, in terms of opening hours, were key preferences [15,16] and are strengths of community pharmacy frequently highlighted by policy makers nationally and globally[1,17]. Fifty percent preferred or did not mind using chain pharmacies, while 50% showed negative preferences for a pharmacy located in a supermarket, findings which are in line with usage statistics[15], showing that 44% of people use a national chain and 10% a supermarket pharmacy. The proportion of respondents who preferred to use the same pharmacy (55%) was slightly lower than in previous studies conducted in other countries [10,18,19] and in England, where it varies, being higher in rural locations[15,20]. Our findings may be due to our sample being primarily suburban.

No previous work has explored preferences for pharmacy opening hours, personal knowledge of the staff or pharmacist sex or linked findings to the characteristics of individuals expressing these preferences. Preferences for using the same pharmacy found primarily among respondents over 65 years of age, retired and educated to primary/secondary level are important for the development of public health services, which need to target different populations. Service developers need to recognise that people in full-time work emphasised pharmacy opening hours in their preferences, and fewer also prefer to use the same pharmacy. Public health services such as screening for diabetes, hypertension, cardiovascular disease or risky alcohol use may need to be targeted at people of working age and those who perceive themselves to be healthy but may be at risk. Surprisingly, the preference for privacy in consultations was relatively low with only 30% preferring to talk with a pharmacist in a private room. This appears to contrast with other findings suggesting that a perceived lack of private consultation facilities in pharmacies, although increasingly unwarranted, is a barrier to using community pharmacies for health advice[3,7,8,21].

This is the first study to investigate potential advertising techniques for promoting pharmacy public health services in England. Both the general public and pharmacy users have limited awareness of pharmacy public health services,[3,7,11,16] and encouraging uptake has proved difficult[16,22]. Nonetheless the public have shown willingness to use these services,[7,11] therefore raising awareness through promotion is essential. Our study suggests that no single technique will effectively reach the population at which public health services are targeted and a mixed-methods strategy should be considered, at both local and national level. The results strongly indicate that personal recommendations, either by health professionals or family and friends are the most likely to encourage service uptake. Small studies conducted in the USA suggest that personal contact is the best method to promote medicines management services[23] and recruitment of existing pharmacy users, good customer

relationships, pharmacy atmosphere and quality of previous service experience also help increase service use[10]. No mass media techniques were viewed as having a positive influence, thus, while widely used within the commercial sector[24] and having shown to be effective for some services,[16,25,26] they may not be best suited to pharmacy public health services. Pharmacists should consider using mechanisms requiring less expenditure and also recognise that older respondents may be less influenced by any promotional method than younger people.

Posters in pharmacies and surgeries, most likely to encourage frequent pharmacy users, plus adverts on healthcare websites, which are more likely to reach infrequent users, would appear to be a potentially useful combination of techniques, along with being pro-active in promoting services to existing customers. Users of pharmacy services generally display high levels of satisfaction[27] and encouragement to recommend services to others, through the use of promotional cards/leaflets could prove a useful strategy. Linking of services has been advocated by pharmacists[3,28] and is being explored in research studies[29]. The strength of the preference for word-of-mouth promotion by doctors and other health professionals requires improved inter-professional networking to support uptake as well as delivery of public health services[30,31]. This is likely to be most effective if there is genuine collaboration between these professions[32].

Strengths and limitations

This is a large cross-sectional study which collected data from the general public in several areas of England, representing actual societal perspectives. Data were gathered using multiple methods with two (interviewer-assisted and self-completion) approaches. Appropriate sampling frames and techniques were used for each survey mode, e.g. random sampling from postcode address file for postal survey and purposive sampling for street

surveys. The combination of different approaches was designed to maximise the diversity of respondents, enabling a wide range of demographic groups to be represented[33,34]. It also avoided typical response bias issues associated with single distribution methods. The resultant sample was broadly representative of the English population, although younger people and those with degree level qualifications were slightly over-represented. The proportion of respondents using pharmacies with different frequencies were broadly similar to those found in a large Omnibus survey conducted in 2008, although the proportion of infrequent pharmacy users was lower in our study, suggesting a possible bias towards people who use pharmacies. The response rate was however, unsurprisingly low, as is becoming the norm with such surveys[34]. Therefore, non-respondent bias is of concern. Since a significant proportion of the questionnaires were administered by interviewer-assisted approaches (face-to-face or telephone), obsequiousness bias may be a further concern.

The survey included the opportunity to add additional comments on promotion of pharmacy public health services, the first time the views of members of the public on this topic have been explored in the UK.

Conclusion

Our study shows for the first time specific preferences for pharmacy locations, opening hours, ownership and attitudes towards other pharmacy characteristics among different sectors of the English public, including infrequent users of pharmacies. It also provides the first insights into their preferences for promoting pharmacy public health services.

For pharmacy public health services to be more widely used, pharmacists, pharmacy companies and service commissioners need to ensure that the promotional methods used for a particular service correspond with those favoured by the potential users that the service is targeted towards. Since personal recommendation, either by health professionals or family

and friends was the method most likely to encourage service uptake and frequent pharmacy users were more likely to be influenced by any promotional methods, good inter-professional working and a pro-active approach to existing customers would appear to be important. Awareness of the differences in the acceptability of different pharmacy preferences and promotional methods dependent on gender, age and educational status is also important for trying to reach specific groups.

References

1. World Health Organisation and International Pharmaceutical Federation. Developing pharmacy practice a focus on patient care2006 [cited 2010 August 5]: Available from: http://www.who.int/medicines/publications/WHO_PSM_PAR_2006.5.pdf.

2. Anderson C, Blenkinsopp A, Armstrong M. The contribution of community pharmacy to improving the public's health: Summary report of literature review 1990-20072008 [cited 2011 July 20]: Available from: http://eprints.nottingham.ac.uk/1576/1/The_contribution_of_community_pharmacy_to_improving_the_public's_health._Evidence_Base_Report_7.pdf.

3. Eades CE, Ferguson JS, O'Carroll RE. Public health in communtiy pharmacy: A systematic review of community pharmacist and consumer views. BMC Public Health. 2011; 11:1-45.

4. Agomo CO. The role of community pharmacists in public health: a scoping review of the literature. JPHSR. 2012; 3:25-33.

5. Department of Health. Choosing Health through pharmacy – a programme for pharmaceutical public health 2005–2015 In: Health Do, editor. 1 April 2005 ed. London: Department of Health; 2005.

6. Now or Never: Shaping pharmacy for the future [database on the Internet]. Royal Pharmaceutical Society. 2013 [cited 9 December 2014]. Available from: http://www.rpharms.com/promoting-pharmacy-pdfs/moc-report-full.pdf.

7. Krska J, Morecroft C. Views of the general public on the role of pharmacy in public health. J of Pharm Health Ser Res. 2010; 1:33-8.

8. Saramunee K, Krska J, Mackridge A, Suttajit S, Richards J, Phillips-howard PA. How to enhance public health service utilisation in community pharmacy?: General public and health providers' perspectives. Res Social Adm Pharm. 2014; 10:272-84.

9. Weidmann AE, Cunningham S, Gray G, Hansford D, Bermano G, Stewart D. Views of the Scottish general public on community pharmacy weight management services: international implications. Int J Clin Pharm. 2012; 34:389-97.

10. Peterson GM, Jackson SL, Hughes JD, Fitzmaurice KD, Murphy LE. Public perceptions of the role of Australian pharmacists in cardiovascular disease. J Clin Pharm Ther. 2010; 35:671-7.

11. Saramunee K, Krska J, Mackridge A, Richards J, Suttajit S, Phillips-Howard P. General public's views on pharmacy public health services: current situation and opportunities in the future. Public Health. 2015; 129:705-15.

12. Programme NHC. Putting Prevention First – NHS Health Check: Vascular Risk Assessment and Management Best Practice Guidance In: Health VPDo, editor. London: Crown copyright; 2009.

13. Saramunee K, Mackridge A, Phillips-Howard P, Richards J, Suttajit S, Krska J. Methodological and economic evaluations of seven survey modes applied to health service research. Journal of Pharmaceutical Health Service Reserach. 2016; 7:43-52.

14. Office for National Statistics. 2015; Available from: http://www.ons.gov.uk/.

15. COI on behalf of Department of Health. Community Pharmacy Use - Quantitative and Qualitative Research: Market Research Report. London: Continental Research 2008.

16. Taylor J, Krska J, Mackridge A. A community pharmacy-based cardiovascular screening service: views of service users and the public. Int J Pharm Pract. 2012; 20:277-84.

17. Department of Health. Cardiovascular Disease Outcomes Strategy In: Department of Health, editor. London: Department of Health; 2013.

18. Wazaify M, Shields E, Hughes CM, McElnay JC. Societal perspectives on over-the-counter (OTC) medicines. Fam Pract. 2005; 22:170-6.

19. Antunes L, Gomes J, Cavaco A. How pharmacist-patient communication determines pharmacy loyalty? Modeling relevant factors. Res Social Adm Pharm. 2014; In Press.

20. Department for Communities and Local Government. The English Indices of Deprivation 2015 Research report London: Crown copyright; 2015.

21. Anderson C, Blenkinsopp A, Armstrong M. Feedback from community pharmacy users on the contribution of community pharmacy to improving the public's health: a systematic review of the peer reviewed and non-peer reviewed literature 1990-2002. Health Expect. 2004; 7:191-202.

22. McNaughton RJ, Oswald NT, Shucksmith JS, Heywood PJ, Watson PS. Making a success of providing NHS Health Checks in community pharmacies across the Tees Valley: a qualitative study. BMC Health Serv Res. 2011; 11:222.

23. Garcia GM, Snyder ME, McGrath SH, Smith RB, McGivney MS. Generating demand for pharmacist-provided medication therapy management: identifying patient-preferred marketing strategies. J Am Pharm Assoc (2003). 2009; 49:611-6. doi: 10.1331/JAPhA.2009.08089.

24. Churchill GA, Iacobucci D. Marketing Research Methodological Foundations. 8th ed. USA: South-Western Thomson Learning; 2002.

25. Horgan JM, Blenkinsopp A, McManus RJ. Evaluation of a cardiovascular disease opportunistic risk assessment pilot ('Heart MOT' service) in community pharmacies. J Public Health. 2010; 32:110-6.

26. Krska J, Mackridge AJ. Involving the public and other stakeholders in development and evaluation of a community pharmacy alcohol screening and brief advice service. Public Health. 2014; 128:309-16. doi: 10.1016/j.puhe.2013.11.001. Epub 4 Apr 6.

27. Ayorinde AA, Porteous T, Sharma P. Screening for major diseases in community pharmacies: a systematic review. International Journal of Pharmacy Practice. 2013; 21:349-61.

28. Gray NJ, Wilson SE, Cook PA, Mackridge AJ, Blenkinsopp A, Prescott J, et al. Understanding and optimising an identification/brief advice (IBA) service about alcohol in the community pharmacy setting: Liverpool PCT2012.

29. Brown S, Henderson E, Sullivan C. The feasibility and acceptability of the provision of alcohol screening and brief advice in pharmacies for women accessing emergency contraception: an evaluation study. BMC Public Health. 2014; 14:1139. doi: 10.86/471-2458-14-1139.

30. Bradley F, Wagner AC, Elvey R, Noyce PR, Ashcroft DM. Determinants of the uptake of medicines use reviews (MURs) by community pharmacies in England: a multi-method study. Health Policy. 2008; 88:258-68.

31. Rapport F, Doel MA, Hutchings HA, Wright S, Wainwright P, John DN, et al. Eleven themes of patient-centred professionalism in community pharmacy: innovative approaches to consulting. Int J Pharm Pract. 2010; 18:260-8.

32. Bradley F, Ashcroft DM, Noyce PR. Integration and differentiation: A conceptual model of general practitioner and community pharmacist collaboration. Res Social Adm Pharm. 2012; 8:36-46.

33. Allison T, Ahmad T, Brammah T, Symmons D, Urwin M. Can findings from postal questionnaires be combined with interview results to improve the response rate among ethnic minority populations? Ethn Health. 2003; 8:63-9.

34. McCluskey S, Topping AE. Increasing response rates to lifestyle surveys: A pragmatic evidence review. Perspect Public Health. 2011; 131:89-94.

Table 1 Demographic characteristics of respondents

		Study data		National data	
Characteristic		**Number (%)**	**Missing**	**%**	**Ref**
Gender	Female	1505 (57.04)	39	50.7	14
	Male	1117 (42.6)		49.3	
Age group	<25	645 (24.2)	38	11.7	14
	25-34	306 (11.7)		17.5	
	35-44	293 (11.3)		16.7	
	45-54	358 (13.6)		18.0	
	55-64	442 (16.9)		14.3	
	65 and over	576 (22.0)		21.8	
Ethnicity	White	2211 (84.5)	43	86.0	14
	Asian	193 (7.4)		7.5	
	Black	108 (4.1)		3.3	
	Mixed	56 (2.1)		2.2	
	Chinese	30 (1.1)			
	Other (mostly Arabic)	19 (0.7)		1.0	
Educational level	School educated	729 (30.3)	46	55.4	
	Further education	714 (27.3)		12.5	
	University	1049 (40.1)		14.5	
	None	60 (2.3)		15.5	
Employment status	Full-time employed	685 (26.2)	46	74.1 (employment)	14
	Part-time employed	627 (23.9)			
	Retired	716 (27.3)			
	Not working	588 (22.5)			
Deprivation status*	1 (highest)	744 (32.2)	352	19.9	20
	2	425 (18.4)		19.9	
	3	486 (21.0)		20.0	
	4	411 (17.8)		20.0	
	5 (lowest)	243 (10.5)		20.1	
Socio-economic status **	Higher managerial/professional	272 (10.2)	82		
	Lower managerial/professional	591 (22.9)			
	Intermediate	346 (13.4)			
	Small employer/own account	213 (8.3)			
	Lower supervisory/technical	190 (7.4)			
	Semi-routine	259 (10.0)			
	Routine	496 (19.2)			
	Never worked	167 (6.5)			
	Charity worker/volunteer	14 (0.5)			
	Others (including students)	32 (1.2)			

* Based on postcode; ** based on job description

Table 2 Frequency of pharmacy use (n = 2,661)

	Number	%	Comparison to previous survey*
once a week	210	7.9	8%
once a fortnight	269	10.2	8%
once a month	813	30.7	33%
once every 2 to 3 months	663	25.1	18%
once every 6 months	434	16.4	11%
Never/less than 6 monthly	226	8.5	22%
Not sure	32	1.2	n/a
Total	**2,647**	**100.0**	**100%**

*****Source: COI on behalf of Department of Health (2008), surveyed 1,645 adults in approximately 120 locations throughout England.

Table 3 Attitudes towards pharmacy characteristics related to respondent characteristics

Pharmacy characteristic	Proportion (% of total) indicating agreement with statement														
	Gender		Age group			Ethnicity		Education			Work status			Pharmacy use	
	Female	Male	< 35	35-64	≥ 65	White	Non-white	School educated	Further education	University	Full-time	Part-time / not working	Retired	Frequent	Infrequent
Prefer to use same pharmacy every time	55	57	41	57	**79***	57	54	**70**	57	45*	47	50	**75***	**68**	45*
Prefer pharmacy owned by large company	19	22	23	18	24*	19	**31***	25	20	18	17	23	21	24	18
Prefer pharmacy owned by pharmacist working there	28	30	20	31	**40***	29	28	**35**	28	24****	23	27	**38***	**34**	24*
Do NOT prefer a pharmacy in a supermarket	52	48	39	52	**65***	52	**39***	**56**	40	46*	47	45	**62***	**56**	45*
Prefer a pharmacy open on a Saturday	62	65	66	67	54*	62	**72***	57	63	69*	68	67	**55***	68	60*
Prefer a pharmacy open on a Sunday	40	46	48	47	31*	40	**61***	41	44	46*	50	47	**32***	45	42*
Prefer a pharmacy open in the evening	53	56	62	58	33*	52	**69***	45	54	62*	66	59	**35***	53	55*
Prefer a pharmacy where I know the pharmacist	34	36	24	35	**54***	34	42	43	36	30*	31	29	**52***	47	25*
Prefer a pharmacy where staff know me	32	36	21	34	**57***	34	39	41	37	25*	28	27	**53***	47	22*
Prefer a pharmacy where pharmacist is same sex as me	7	**13***	12	9	9	9	**16***	11	8	11	8	12	10	10	10
Prefer a pharmacy where I can talk in a private room	26	**33***	29	29	35	30	31	31	30	30	24	30	**36***	33	27
Trust pharmacist to keep personal information confidential	**92**	86*	86	90	95*	91	85	93	89	88	85	89	**95***	93	86*
Trust staff to keep personal information confidential	**87**	82	81	84	93*	85	83	89	82	82*	80	84	**91***	90	81*

* Significant differences between sub-groups p<0.001, tested by Chi-square; numbers in bold indicate highest levels of agreement

Table 4 Preferences for promotional methods for pharmacy public health services related to respondent characteristics

Promotional methods	Proportion (% of total) indicating method would encourage them to use pharmacy services														
	Gender		Age group			Ethnicity		Education			Work status			Pharmacy use	
	Female	Male	<35	35-64	≥65	White	Non-white	School educated	Further education	University	Full-time	Part-time / not working	Retired	Frequent	Infrequent
Doctor or other health professional recommendation	**75**	70*	**82**	68	66*	72	74	69	69	**78***	67	**79**	68*	74	72
Family/friends recommendation	**60**	58*	**71**	63	49*	63	63	56	60	**70***	63	**68**	54*	62	63
Poster in surgery	**41**	32*	**41**	37	29*	37	38	35	37	**39***	33	**42**	33*	**40**	34*
Poster in pharmacy	**32**	25*	**31**	31	23*	29	30	28	29	30	27	**33**	25*	**32**	26*
Healthcare website	36	34	**55**	29	13*	33	**46***	22	33	**48***	35	**46**	16*	31	**40***
Local TV	26	22	**33**	22	14*	22	**33***	20	25	27	23	**31**	14*	23	25
Poster in public place	19	16	**19**	20	10	17	19	16	19	17	20	19	12	19	15
Local free paper	19	16	17	**20**	15*	17	20	18	20	16	18	19	16	1	16
Leaflet through door	17	14	16	**19**	10*	16	17	16	17	15	17	18	12	18	14
Local radio	17	15	**21**	15	11*	16	20	14	18	17	16	**20**	10*	16	17
Email	12	9	13	12	6	10	16	9	12	11	11	14	6	12	10

* Significant differences between sub-groups $p<0.001$, tested by Chi-square

Table 5 Odds ratio (95% CI) of views towards promotional methods for pharmacy services

Promotional methods	**Age group**			**Pharmacy use**		
Doctor or other health professional recommendation	< 35	1.000		Frequent	1.000	
	35-64	0.498*	(0.387 – 0.642)	Infrequent	0.674*	(0.556 – 0.817)
	≥65	0.377*	(0.251 – 0.567)			
Family/friends recommendation	< 35	1.000		Frequent	1.000	
	35-64	0.770	(0.316 – 0.968)	Infrequent	0.832	(0.696 – 0.995)
	≥65	0.407*	(0.279 – 0.593)			
Poster in surgery	< 35	1.000		Frequent	1.000	
	35-64	0.721	(0.576 – 0.902)	Infrequent	0.684*	(0.573 – 0.817)
	≥65	0.377*	(0.270 – 0.597)			
Poster in pharmacy	< 35	1.000		Frequent	1.000	
	35-64	0.945	(0.746 – 1.197)	Infrequent	0.697*	(0.578 – 0.841)
	≥65	0.564	(0.376 – 0.847)			
Local TV	< 35	1.000		Frequent	1.000	
	35-64	0.600*	(0.469– 0.768)	Infrequent	0.798	(0.652 – 0.976)
	≥65	0.476*	(0.300 – 0.757)			
Poster in public place	< 35	1.000		Frequent	1.000	
	35-64	0.824	(0.628– 1.083)	Infrequent	0.680*	(0.544 – 0.850)
	≥65	0.430*	(0.259 – 0.714)			
Leaflet through door	< 35	1.000		Frequent	1.000	
	35-64	1.092	(0.826– 1.453)	Infrequent	0.684*	(0.544 – 0.860)
	≥65	0.528	(0.317 – 0.882)			
Healthcare websites	< 35	1.000		Frequent	1.000	
	35-64	0.412*	(0.329– 0.518)	Infrequent	0.860	(0.711 – 1.040)
	≥65	0.188*	(0.121 – 0.292)			

Table 6 Additional comments about promotional methods for pharmacy public health services

Themes	**Illustrative comments**
Need for increased promotion	"*Only know of smoking cessation from a friend, don't know what else is offered*" (white male, 55-64, college educated, not working, infrequent pharmacy user) "*I do not feel the pharmacy services are advertised at all - I didn't realise until recently just what they can offer - I have recently found their services a huge help … a relief as I didn't have to visit a doctor.*" (white female, 35-44, college educated, working full-time, frequent pharmacy user)
Disagree with promoting services	"*I don't believe health care should be advertised in a manner which would be more appropriate for soap powder.*" (white male, 55-64, university educated, working part-time, frequent pharmacy user) "*I feel advertisements do not necessarily guarantee quality of service.*" (white female, 35-44, university educated, working full-time, infrequent pharmacy user)
Important factors to consider	"*Good pharmacist will have more influence than any advertising.*" (white male, 55-64, school educated, not working, frequent pharmacy user) "*So long as the service being advertised is for the sole benefit of the user and not to boost trade.*" (white female, 55-64, university educated, working full-time, infrequent pharmacy user)

Figure 1 Preferences for pharmacy characteristics (n=2,661, excluding missing data)

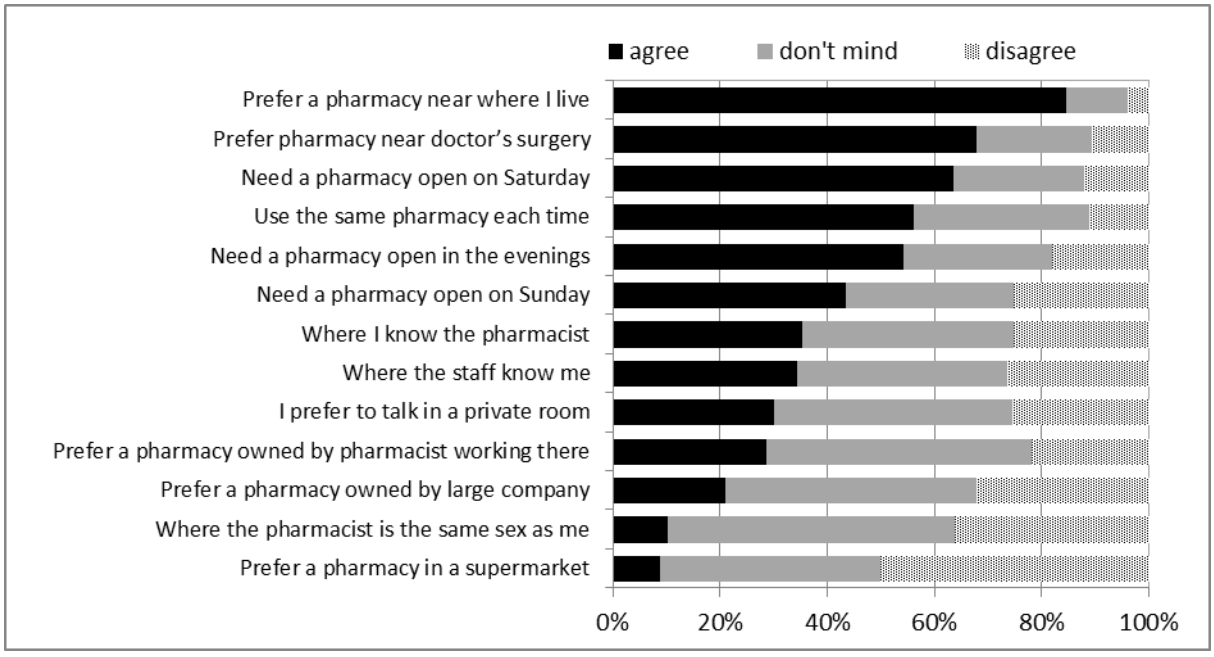

Figure 2 Perceived effectiveness of promotional methods for pharmacy public health services among the general public (n=2,661, excluding missing data)