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Association between Enhanced Access Services in Pediatric Primary Care and Utilization of Emergency Departments: A National Parent Survey

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Abstract

Objectives—To measure the prevalence of enhanced access services in pediatric primary care and to assess whether enhanced access services are associated with lower emergency department (ED) utilization.

Study design—Internet-based survey of a national sample of parents (n=820, response rate 41%). We estimated the prevalence of reported enhanced access services and ED use in the prior 12 months. We then used multivariate negative binomial regression to assess associations between enhanced access services and ED use.

Results—The majority of parents reported access to advice by telephone during office hours (80%), same-day sick visits (79%), and advice by telephone outside office hours (54%). Fewer than one-half of parents reported access to their child's primary care office on weekends (47%), after 5:00 pm on any night (23%), or by email (13%). Substantial proportions of parents reported that they did not know if these services were available (7-56%, depending on service). Office hours after 5:00 pm on ≥5 nights a week was the only service significantly associated with ED utilization in multivariate analysis (adjusted incidence rate ratio: 0.51 [95% CI 0.28-0.92]).

Conclusions—The majority of parents report enhanced access to their child's primary care office during office hours, but many parents do not have access or do not know if they have access outside of regular office hours. Extended office hours may be the most effective practice change to reduce emergency department use. Primary care practices should prioritize the most effective enhanced access services and communicate existing services to families.

Keywords

primary care; medical home; enhanced access; emergency department use

Enhanced access in primary care refers to a variety of services intended to provide families with additional options for communicating with primary care providers and for getting direct

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care, when needed. Enhanced access typically refers to services such as availability of telephone consultation during and after office hours, same-day sick visits, extended weekday or weekend office hours, and options for electronic communication, such as e-mail.[1-5] These services are promoted for their potential to improve care through several mechanisms, including enhanced communication between families and primary care providers, increased patient and family satisfaction, and decreased utilization in more costly settings, such as a hospital emergency department (ED).

Enhanced access is a key component of regional and national efforts to transform primary care in the United States through implementation of the medical home model.[1-5] Despite this, very little is known about the current prevalence of enhanced access services in primary care, particularly in primary care practices that serve children. The few prior studies of enhanced access services have focused on adult primary care[6-9] or were unclear about the degree to which primary care practices in the study served children.[10,11] These studies suggested that most adults could get advice from their primary care provider by telephone,[6] but only a minority of practices were open for visits outside of standard weekday hours.[10,11]

Additionally, there has been little empiric evidence about the influence of enhanced access to primary care on health care utilization, particularly ED use. A systematic review of telephone consultation in primary care suggested that it could reduce in-office visits in primarily adult populations, but effects on ED use were mixed.[12] In a pediatric-specific study, 46% of parents who called an after-hours advice line reported that they would have gone to the ED if the advice line was not available.[13] In a randomized study of a primary care program, ED utilization was reduced but only during the hours of operation.[14]

Our study had two objectives: (1) to measure the current prevalence of enhanced access services in pediatric primary care; and (2) to assess whether enhanced access services are associated with lower utilization of emergency departments.

METHODS

We conducted an Internet-based survey of a national sample of parents in the United States in December 2011. This study was classified as exempt from human subjects review by the University of Michigan Institutional Review Board.

Participants were sampled from a nationally representative online panel of individuals maintained by Knowledge Networks, a survey research firm.[15] This standing online panel was originally recruited through random digit dialing sampling but is now maintained through address-based sampling, similar to the US Census. As part of the panel, households are provided free computer hardware and internet access if they do not have these at the time of recruitment.

For this survey, we sampled adults (age ≥18 years) with children between the ages of 0 to 17 years in the household. Parents filled out demographic information on all children in the household. One child was then randomly selected, and the parent was instructed to answer questions for that child.

SURVEY INSTRUMENT

Parents completed an online survey that included questions regarding their knowledge about enhanced access services in their child's primary care office and health care utilization for the child in the prior 12 months (Appendix available at www.jpeds.com; full instrument available upon request). Questions included a combination of items generated by the investigators as well as many derived from existing surveys, including the National Survey

of Children's Health,[16] the Medical Expenditure Panel Survey,[17] and the Consumer Assessment of Healthcare Providers and Systems Clinician and Group Survey.[18] Survey instructions and questions were written at the 9th grade reading level. The survey was pilot tested with a sociodemographically diverse group of 20 parents as part of a qualitative study,[19] and revisions were made based on responses during interviews to improve readability and comprehension. The survey was then pre-tested with an independent sample of parents from the Knowledge Networks panel (n=122) to estimate response times and non-response rates for specific questions.

Enhanced Access Services—We asked parents whether their child's primary care office offered the following: (1) answers to questions by telephone while the office is open; (2) availability of sick visits in the office the same day, when needed; (3) answers to urgent questions by telephone after the office is closed; and (4) ability to ask questions and receive answers by email. For these questions, response options included: never, sometimes, usually, always, or don't know. Parents also were asked: (5) how many nights a week their child's primary care office was open after 5:00 pm. Parents responded with the number of nights or don't know. Lastly, parents were asked: (6) whether their child's primary care office was open on the weekend. Response options included: Saturday only, Sunday only, Saturday and Sunday, or don't know.

Emergency Department Utilization—Parents were asked the number of times their child used the emergency department in the prior 12 months for any reason, a measure that has been found to have reasonable agreement with utilization found in medical records.[20]

Respondent Characteristics—Demographic information on the participants included child age, special health care needs,[21] insurance status and type, parent-reported child health, parental race/ethnicity, parental education level, household poverty level, and the presence of a usual source of care for the child that was not an emergency department. Because the sample was drawn from a standing panel, demographic information also was available for non-respondents.

DATA ANALYSES

Parent and child demographic characteristics were described using univariate analyses. We used univariate analyses to describe the prevalence of parents' report of the enhanced access services in their child's primary care office for the overall sample of children and by characteristics associated with higher rates of ED use in the literature, including special health care needs, race/ethnicity, and insurance type. We used the chi-squared test to assess differences in reported prevalence across groups.

We constructed a series of regression models with ED visits as the dependent variable and reports of enhanced access services as the primary independent variables. Negative binomial regression was used because ED utilization is measured as counts and the majority of the population had zero visits. Negative binomial regression models can be used to produce results in terms of incidence rate ratios (IRR), which in this study represent the relative rate of reported ED visits in the prior 12 months when a service is reported as available versus a reference category (e.g., children whose parents report same-day sick care is usually or always available versus those who report it is sometimes or never available). The first set of models assessed the bivariate associations between each enhanced access service and ED use. A single final model included all the enhanced access services that were associated with ED use in bivariate analyses, while adjusting for sociodemographic variables, to assess the independent associations between the enhanced access services and ED use. We then constructed the same series of models and conducted stratified analyses for the following

sub-groups: children with special health care needs (CSHCN), black, non-Hispanic race, Hispanic ethnicity, and children with public insurance. The numbers of uninsured children (n=40) and children with "other/multiple" race (n=45) in the sample were too small to perform stratified multivariate analysis on these characteristics.

All analyses were performed using Stata 12.1 (StataCorp LP, College Station, TX, USA). Nationally representative estimates were generated using US Census-based sampling weights. These sample weights were constructed based on the original sampling methodology for the panel, study-specific sampling, and non-response during both panel and study-specific sampling.[15] All bivariate and multivariate analyses were performed using these weights.

RESULTS

A total of 820 parents participated in the survey with a response rate of 41.2%. The demographic characteristics of participating parents and their children are shown in Table I. Compared with demographic characteristics of non-respondents, there was relatively less participation from parents who were female, younger, or African American; had lower educational attainment; or lived in low income households.

PARENTS' REPORTS OF ENHANCED ACCESS SERVICES

Nearly all parents (93%) knew whether they had access to same-day sick visits for their children, and 79% of parents reported that they usually or always could get same-day care (Table II). Similarly, nearly all parents (92%) knew whether they could get advice by phone from their child's primary care provider during office hours, and 80% usually or always could get phone advice during office hours.

In contrast, 54% of parents could routinely get phone advice when the office was closed. An additional 27% of parents did not know whether they could contact their child's primary care office by phone with urgent questions outside of office hours (Table II).

In regards to expanded office hours, 22% of parents did not know if their child could be seen in a primary care office on the weekend (Table II); 31% reported they never or only sometimes could be seen on the weekend. One-half of all parents did not know if their child's primary care office was ever open after 5:00 pm (Table II); 28% of parents reported that their child's office was never open after 5:00 pm, though a similar percentage of parents (23%) reported that the office was open late at least one night a week.

More than one-half of parents (57%) did not know whether they could use email or an office website/patient portal to communicate with their child's primary care office (Table II). Only 13% of parents reported that they usually or always could get advice using either form of online communication.

In general, CSHCN had equal to higher reported prevalence and racial/ethnic minority, publicly-insured, and uninsured children had lower reported prevalence of enhanced access services compared with reference groups (Table II).

ENHANCED ACCESS AND EMERGENCY DEPARTMENT UTILIZATION

Parents reported a mean of 0.43 emergency department visits (range 0-7) for their child in the prior 12 months; 71% had no visit, 19% had one visit, and 10% had more than 1 visit. CSHCN had higher rates of ED use compared with children without special needs (mean [SD]: 0.57 [1.06] vs. 0.32 [0.74]; CSHCN IRR [95% CI]: 2.21 [1.39-3.52]), and publicly-insured children had higher ED use compared with privately-insured children (mean [SD]:

0.63 [1.06] vs. 0.24 [0.64]; publicly-insured IRR [95% CI]: 2.74 [1.68-4.47]). Rates of ED use were not significantly different for black, non-Hispanic and Hispanic children compared with white, non-Hispanic children (mean [SD]: 0.56 [0.94] vs. 0.34 [0.90] vs. 0.32 [0.75], respectively; black, non-Hispanic IRR [95% CI]: 1.47 [0.94-2.31]; Hispanic IRR [95% CI]: 1.42 [0.68-2.99]).

In bivariate analyses, children had a significantly lower rate of ED visits associated with their parents' reports of access to: phone advice during office hours; phone advice outside of office hours; phone advice outside of office hours, as soon as needed; advice by email; office hours during the weekend; and office hours after 5:00 pm (Table III). The availability of same-day sick visits was not significantly associated with the ED visit rate in bivariate analysis. Bivariate associations between enhanced access services and ED use were inconsistent across sub-groups (Table III).

For the full sample, availability of office hours after 5:00 pm on 5 or more nights was the only enhanced access service associated with lower ED utilization in the final regression model, which adjusted for all reported enhanced access services as well as sociodemographic characteristics (Table IV). For CSHCN and black, non-Hispanic children, none of the services was associated with ED use. For Hispanic children, office hours after 5:00 pm on 5 or more nights and email advice were associated with lower ED use, and availability of phone advice outside office hours was associated with higher ED use (Table IV). For children with public insurance, office hours after 5:00 pm on 5 or more nights was associated with lower ED use (Table IV).

DISCUSSION

In this nationally representative study of parents, parents were more likely to know about and report the availability of enhanced access services during regular weekday office hours, such as telephone advice and same-day sick visits, and were less likely to know about or have access to services outside office hours. Among the enhanced access services evaluated, we found that extended primary care office hours (after 5:00 pm on 5 or more nights a week) was the aspect of enhanced access most consistently associated with decreased ED use in the full sample and several sub-groups.

Enhanced access to primary care is a cornerstone of efforts to transform primary care through the patient-centered medical home model.[1-5] There are many broad goals for the medical home, including the improvement of acute, chronic, and preventive care and the reduction of unnecessary care in emergency departments.[1-5,22] Because enhanced access services could serve as key mechanisms to meet these goals, it is concerning that substantial numbers of parents do not know whether their child's primary care office offers these services. Although parents' knowledge about these services may not reflect actual availability, knowledge about a service can be a rate-limiting step in the use of that service.[23] Particularly for acute care, a primary care service will have limited effectiveness if the parent does not know about it at the time it is needed. Future research should explore whether there are disparities in enhanced access services for vulnerable populations, how well parents' reports of these services correlate with actual availability in primary care offices, and the most effective mechanisms to inform parents about services in their child's primary care office.

A key finding for this study was that extended office hours in the evenings were associated with lower ED use for the full sample and the Hispanic and publicly insured sub-groups, even after adjusting for other parent and child sociodemographic characteristics. These findings are consistent with prior research suggesting that primary care has the most

substantial effects on ED use when the office is open[14] and that many parents use the ED only after failing access to primary care.[24] It is important to note these associations were found despite being unable to differentiate between urgent visits to the ED, which are likely to be less responsive to changes in primary care, and non-urgent visits to the ED, which may be more responsive to enhanced access to primary care. Although overall ED use in our study population was slightly higher than that found in other nationally representative samples of children, it was in the same range.[25,26] Future work is needed to assess the potentially variable effects of enhanced access on non-urgent ED use in general populations and in populations that have higher ED use, such as children with special health care needs and publicly insured children. Our finding of decreased ED use with extended hours for publicly insured children but not for CSHCN suggests that enhanced access alone may not address the complex needs of CHSCN but could mitigate barriers for low-income families with generally well children. Widespread adoption of the medical home model should provide opportunities to better assess the effects of enhanced access on ED utilization and other outcomes, such as patient satisfaction.

The findings in this study should be considered in the context of several limitations. First, the cross-sectional design of this study limits the ability to make conclusions about cause and effect. Second, the response rate for the survey was low at 41%, raising the possibility of response bias. We were able to compare sociodemographic characteristics between responders and non-responders and found relatively lower response rates from several groups, including mothers, younger parents, African-Americans, parents with lower educational attainment, and parents living in low income households. Despite this, the parent and child sociodemographics of our sample were comparable with other national surveys.[25,27] Third, for parents who reported using the ED for their child, we did not ask whether they had attempted to contact or access primary care prior to going to the ED. Lastly, we did not ask about other models of primary care that have been discussed in the context of enhanced access, such as group visits or school-based services.[10,11,28]_ENREF_21 We focused instead on enhanced access services that are most commonly included in current medical home programs.[1-3,29]

The results from this study have several important implications for enhanced access to primary care and implementation of the medical home model. Practices that are planning and implementing enhanced access services also should consider how families will be informed about the availability and appropriate use of new services. Our findings suggest that a significant proportion of parents do not know whether their child's primary care practice offers services that are most likely to be effective if known about in advance, such as after-hours phone advice and extended hours. Additionally, research also is needed to understand parents' priorities for implementation of these services and willingness to make trade-offs. Due to limited time and resources, primary care practices may need to make significant trade-offs in order to implement enhanced access, such as having longer wait times for scheduling preventive care visits because more appointments are reserved for same-day sick care. Parents' views on these changes have rarely been explored.[19,28] Ultimately, the effectiveness of changes to primary care services may be strongly dependent on meeting the needs and expectations of the families they are intended to serve.[30-33]

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Abbreviations

ED	emergency department
FPL	federal poverty level

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Table 1

Parent and Child Characteristics (820 respondents)

Characteristics	Unweighted[a] % (n)	Weighted[b] %
Parent		
Age		
18-29 y	18 (145)	20
30-44 y	58 (474)	55
45-59 y	23 (190)	24
≥60 y	1 (11)	1
Female	54 (443)	55
Race/ethnicity		
White, non-Hispanic	53 (436)	62
Black, non-Hispanic	20 (165)	12
Hispanic	21 (174)	18
Other/multiple	5 (45)	8
Education		
Less than high school	9 (74)	12
High school	26 (214)	27
Some college	28 (232)	29
Bachelor's degree or greater	37 (300)	31
Household income <200% FPL	34 (282)	38
Child		
Female	48 (393)	49
Age		
0-5 y	33 (270)	35
6-11 y	33 (273)	31
12-17 y	34 (277)	34
Child's health (parent-reported)		
Excellent	61 (503)	60
Very good	29 (235)	29
Good/fair/poor	10 (82)	11
Presence of special health care need[c]	23 (189)	24
Health insurance		
Private	61 (496)	58
Public	34 (271)	36
Uninsured	5 (41)	6

Abbreviations: FPL - federal poverty level

[a] Unadjusted characteristics of response sample

[b] Characteristics of response sample using US Census-based sampling weights constructed based on the original sampling methodology for the panel, study-specific sampling, and non-response during both panel and study-specific sampling.

[c] As defined by the Children with Special Health Care Needs Screener21

Table 2

National Prevalence of Parents' Reports of Enhanced Access Services

	Weighted %, (95% CI)									
	All Children	**Special Health Care Needs**		**Race/Ethnicity**				**Insurance Type**		
		CSHCN	**No SHCN**	**White, non-Hispanic**	**Black, non-Hispanic**	**Hispanic**	**Other**	**Private**	**Public**	**Uninsured**
Same-day sick visits										
Never/Sometimes	15 (12-18)	12 (7-19)[a]	16 (12-20)	11 (8-15)[a]	16 (10-23)	23 (14-34)	28 (14-47)	7 (5-11)[a]	24 (17-31)	27 (13-48)
Usually/Always	79 (74-82)	86 (79-91)	76 (71-81)	83 (78-87)	80 (72-87)	66 (55-76)	67 (48-82)	85 (81-89)	71 (63-78)	63 (42-80)
Don't Know	7 (5-9)	2 (1-6)	8 (6-11)	6 (4-10)	4 (2-9)	11 (6-19)	5 (1-22)	7(5-11)	5 (3-9)	10 (3-31)
Phone advice during office hours										
Never/Sometimes	12 (9-15)	16 (10-25)	11 (8-14)	9 (6-13)[a]	18 (11-27)	14 (8-24)	22 (10-43)[a]	7 (5-11)[a]	16 (10-22)	29 (13-52)
Usually/Always	80 (76-83)	78 (70-85)	80 (76-84)	83 (79-87)	71 (61-79)	75 (65-83)	75 (56-88)	84 (80-88)	76 (69-82)	61 (39-79)
Don't Know	8(6-11)	6(3-10)	9 (7-12)	7 (5-11)	11 (7-19)	12 (7-19)	2 (0-10)	8(5-12)	8(5-12)	10 (3-31)
Phone advice outside office hours										
Never/Sometimes	19 (16-23)	20 (14-27)	19 (16-23)	16 (12-20)	25 (17-35)	28 (19-38)	21 (11-37)	59 (54-65)[a]	48 (41-56)	33 (18-54)
Usually/Always	54 (50-58)	54 (44-62)	54 (49-59)	57 (51-62)	46 (37-57)	50 (40-60)	53 (36-70)	15 (12-20)	25 (19-32)	21 (10-41)
Don't Know	27 (23-31)	27 (20-36)	27 (23-31)	28 (23-33)	29 (21-39)	22 (15-31)	26 (13-45)	26 (21-31)	27 (20-34)	46 (27-66)
Email advice										
Never/Sometimes	31 (27-35)	40 (31-49)[a]	28 (24-33)	28 (24-34)[a]	35 (25-45)	36 (26-46)	33 (18-51)[a]	29 (24-34)	32 (25-40)	33 (17-53)
Usually/Always	13 (10-16)	12 (8-19)	13 (10-17)	10 (7-13)	15 (9-25)	18 (11-26)	23 (11-44)	12 (9-16)	17 (12-23)	2(0-15)
Don't Know	56 (52-61)	48 (39-57)	59 (54-64)	62 (56-67)	50 (40-60)	47 (37-57)	44 (28-62)	60 (54-65)	51 (44-59)	65 (44-81)
Office open on weekend										
0 Days	31 (27-36)	33 (25-42)[a]	31 (26-36)	32 (26-38)	24 (17-34)	30 (22-40)	41 (24-59)	25 (21-31)[a]	40 (33-48)	45 (26-65)
≥1 Days	47 (43-52)	57 (47-65)	44 (39-49)	48 (42-54)	46 (36-57)	46 (36-56)	44 (28-62)	54 (48-60)	40 (33-48)	22 (10-42)
Don't Know	22 (18-25)	11 (6-17)	25 (21-29)	20 (16-25)	29 (21-40)	24 (16-34)	15 (7-31)	21 (17-25)	19 (14-26)	33 (17-54)
Office open after 5 PM										
0 Nights	28 (24-32)	32 (24-42)[a]	26 (22-31)	28 (23-33)	20 (13-30)	28 (20-38)	38 (23-57)	27 (22-32)	30 (23-37)	33 (16-56)
1-4 Nights	11(9-14)	17 (11-25)	9 (7-12)	12 (9-16)	14 (9-21)	7 (3-15)	9 (3-27)	14 (10-19)	8(5-12)	7 (2-21)
≥5 Nights	12 (9-15)	13 (8-21)	11 (8-15)	10 (7-14)	12 (7-22)	21 (13-32)	5 (2-18)	11(8-15)	13 (9-20)	--[b]

	Weighted %, (95% CI)									
	All Children	Special Health Care Needs		Race/Ethnicity				Insurance Type		
		CSHCN	No SHCN	White, non-Hispanic	Black, non-Hispanic	Hispanic	Other	Private	Public	Uninsured
Don't Know	50 (45-54)	37 (29-46)	53 (48-58)	51 (45-56)	54 (43-64)	45 (35-55)	47 (30-65)	48 (42-54)	50 (42-57)	60 (38-78)

[a] p<0.05 for differences across sociodemographic group

[b] insufficient number of responses to generate estimate

Abbreviations: CSHCN – children with special health care needs; SHCN – special health care needs

Table 3

Bivariate Associations between Parents' Reports of Enhanced Access Services and Emergency Department Utilization for All Children and Specific Populations

	Incidence Rate Ratio,[a] (95% CI)				
	All Children	**CSHCN**	**Black, non-Hispanic**	**Hispanic**	**Publicly Insured**
Same-day sick visits					
Never/sometimes	ref	ref	ref	ref	ref
Usually/always	0.73 (0.46-1.16)	0.70 (0.31-1.59)	0.71 (0.32-1.56)	0.83 (0.22-3.12)	1.15 (0.66-2.01)
Phone advice during office hours					
Never/sometimes	ref	ref	ref	ref	ref
Usually/always	0.42 (0.21-0.84)[b]	0.57 (0.27-1.21)	0.49 (0.23-1.02)	0.21 (0.05-0.82)[b]	0.48 (0.19-1.19)
Phone advice outside office hours					
Never/sometimes	ref	ref	ref	ref	ref
Usually/always	0.59 (0.38-0.94)[b]	0.63 (0.30-1.32)	0.37 (0.20-0.66)[b]	0.79 (0.31-2.04)	0.71 (0.42-1.19)
Email advice					
Never/sometimes	ref	ref	ref	ref	ref
Usually/always	0.46 (0.26-0.83)[b]	0.56 (0.22-1.44)	0.34 (0.13-0.91)[b]	0.10 (0.02-0.42)[b]	0.37 (0.17-0.79)
Office open on weekend					
0 days	ref	ref	ref	ref	ref
≥1 days/weekend	0.59 (0.35-0.99)[b]	0.91 (0.44-1.88)	1.37 (0.58-3.21)	0.25 (0.08-0.79)[b]	0.59 (0.32-1.12)
Office open after 5 PM					
0 nights/week	ref	ref	ref	ref	ref
1-4 nights/week	0.46 (0.21-1.00)[b]	0.61 (0.35-1.05)	0.72 (0.20-2.57)	0.38 (0.04-3.43)	0.66 (0.27-1.65)
≥5 nights/week	0.32 (0.17-0.63)[b]	0.72 (0.43-1.22)	V1.19 (0.35-4.06)	0.06 (0.01-0.32)[b]	0.25 (0.10-0.66)[b]

[a] Model includes a dummy variable for parents who responded "don't know" for each service

[b] significant at $p<0.05$

Table 4

Multivariate Associations between Parents' Reports of All Enhanced Access Services and Emergency Department Utilization

	Adjusted Incidence Rate Ratio,[a,b] (95% CI)				
	All Children	**CSHCN**	**Black, non-Hispanic**	**Hispanic**	**Public Insurance**
Phone advice during office hours					
Never/sometimes	ref	ref	ref	ref	ref
Usually/always	0.8 (0.48-1.31)	1.16 (0.20-6.92)	0.57 (0.21-1.56)	1.81 (0.63-5.20)	0.88 (0.45-1.73)
Phone advice outside office hours					
Never/sometimes	ref	ref	ref	ref	ref
Usually/always	1.35 (0.84-2.17)	0.68 (0.27-1.73)	0.86 (0.36-2.09)	2.48 (1.29-4.79)[c]	1.13 (0.60-2.15)
Email advice					
Never/sometimes	ref	ref	ref	ref	ref
Usually/always	0.69 (0.41-1.18)	0.72 (0.24-2.10)	0.66 (0.20-2.13)	0.23 (0.07-0.80)[c]	0.57 (0.28-1.17)
Office open on weekend					
0 days	ref	ref	ref	ref	ref
≥1 days/weekend	0.89 (0.64-1.24)	1.57 (0.92-2.67)	1.88 (0.79-4.51)	0.94 (0.52-1.70)	0.84 (0.53-1.34)
Office open after 5 PM					
0 nights/week	ref	ref	ref	ref	ref
1-4 nights/week	0.65 (0.35-1.21)	0.98 (0.35-2.72)	1.21 (0.45-3.30)	1.20 (0.26-5.50)	1.06 (0.50-2.26)
≥5 nights/week	0.51 (0.28-0.92)[c]	0.50 (0.18-1.44)	2.92 (0.98-8.68)	0.17 (0.04-0.77)[c]	0.43 (0.19-0.97)[c]

[a] Model includes a dummy variable for parents who responded "don't know" for each service

[b] Adjusted for all listed enhanced access services, as well as child age, special health care needs,(ref) insurance status and type; parent-reported child health; parental education level; household poverty level; and the presence of a usual source of care for the child that was not an emergency department

[c] significant at $p<0.05$