

The Family Physician and House Calls

A Survey of Colorado Family Physicians

Cory J. Ingram; Ann O'Brien-Gonzales, PhD; Deborah S. Main, PhD; Gwyn Barley, PhD; and John M. Westfall, MD, MPH
Leiden, The Netherlands, and Denver, Colorado

BACKGROUND. Visiting patients at home has long been one of the activities of the family physician, but the practice of making house calls has diminished significantly during the second half of the 20th century. The goal of this study was to describe physicians' attitudes about house calls and their practice of making them in the rapidly changing health care environment of the United States.

METHODS. A 30-item, self-administered questionnaire was designed to obtain demographic information about physicians and their attitudes toward house calls, practice experiences with making house calls, and any additional factors that influence making house calls. It was mailed to all members of the Colorado Academy of Family Physicians, during the summer of 1997.

RESULTS. A 66% response rate was obtained from practicing physicians. Overall attitudes toward house calls were positive. Fifty-three percent of the respondents reported making house calls, and 8% reported making more than 2 house calls per month. Male physicians, those older than 40 years, those in rural settings, and those trained in a community-based residency were more likely to make house calls. Patient payer mix and practice setting were also related to whether a physician made house calls. House calls were most frequently made to geriatric patients, cancer patients, trauma patients, and patients with transportation difficulties. Many physicians reported using home health agencies for assessment and treatment of patients needing home care.

CONCLUSIONS. Family physicians agree that house calls are good for patients. More than half of the respondents reported that they occasionally make house calls. However, few physicians routinely perform house calls.

KEY WORDS. House calls; reimbursement; geriatric assessment; home health agencies. (*J Fam Pract* 1999; 48:62-65)

The house call has long been a part of the tradition of family medicine.^{1,3} The last several decades have seen a drop in the number of house calls by physicians in the United States.⁴ In a previous survey, fewer than half of the family physicians in the United States reported making more than one house call in a 12-month period.⁵ This decline has been attributed to multiple issues, including increased access to transportation, a shift to the improved efficiency of scheduled appointments, and economics.^{6,7} The purpose of our study was to survey practicing family physicians to assess their attitudes toward house calls and their experiences with them.

During a house call, the physician enters the patient's home, providing that physician with a better understanding of the social context of the patient and his or her illness.^{8,9} A house call also provides housebound patients with social contact they might not otherwise receive.

Nearly 4 million Medicare patients received home health care in 1996, yet physicians only billed for 1.5 million home visits, and physician payments accounted for less than 2% of the Medicare payments for home health care.¹⁰ Medicare spending on home health care grew 30% between 1991 and 1995. In most communities in the United States, arranging home health care for patients is as easy as making a phone call. With shorter hospital stays, many patients benefit from the home health care of a variety of providers.

Because so many types of caregivers provide home care and house calls, the role of the family physician in house calls is in question. The additional changes associated with managed care contribute to these uncertainties. We sought to gain a better understanding of the role of physician house calls in the rapidly changing US health care environment.

METHODS

We designed a 30-item, self-administered survey to obtain physicians' demographic information, their attitudes toward and experiences with house calls, and any additional factors that influence the making of house calls. Additionally, open-ended questions were included to allow participants to describe the last house call they

Submitted, revised, October 20, 1998.

From the University of Leiden, College of Medicine (C.J.I.), The Netherlands; and the University of Colorado Health Sciences Center (A.O.-G., D.S.M., G.B., J.M.W.), Denver. Requests for reprints should be addressed to John M. Westfall, MD, MPH, University of Colorado Health Sciences Center, 1180 Clermont St, Denver, CO 80220. E-mail: Jack.Westfall@UCHSC.edu.

made and why they made it. The survey, a personal letter, and a self-addressed stamped envelope were mailed to all members of the Colorado Academy of Family Practice, during the summer of 1997.

Participants were asked to complete the survey and return it in the prepaid envelope. Surveys were numbered to allow identification of survey respondents and facilitate identification of nonrespondents. A second copy of the survey was mailed to nonrespondents approximately 3 weeks later. This study was approved by the Rose Medical Center institutional review board.

We used Statistical Package for the Social Sciences 8.0 for Windows to analyze the survey data.¹¹ First, we summarized survey respondents in terms of demographic, practice, patient, and community characteristics. We also described the frequency of house calls and physician attitudes about making house calls. For multivariate analyses we used an overall summary attitude scale that was calculated by adding physician responses to the 9 attitude items to determine a total score (calculated internal consistency of scale using Cronbach's coefficient alpha = .75). After controlling for physician age and sex, we used logistic regression to examine whether practice type, patient, community characteristics, and overall physician attitude scales were associated with making house calls (coded as a dichotomous variable).

RESULTS

We received completed surveys from 617 of 936 practicing family physicians (66%). A description of respondents is presented in Table 1. The average age of respondents was 43 years (range: 26 to 77 years); there were more men than women; and the majority were from larger, private practices.

EXPERIENCE WITH HOUSE CALLS

More than half (53%) of the respondents reported making house calls. Eight percent made more than 2 house calls a month. Of physicians who made house calls, 71% reported visits that lasted from 10 to 30 minutes. Seventy-six percent of the physicians who make house calls reported they receive 1 to 2 requests for house calls per month, and 20% of the physicians who do not make house calls also reported 1 to 2 requests per month. Sixty-two percent of respondents reported the typical house call was for a patient older than 70 years.

ATTITUDES TOWARD HOUSE CALLS

Physicians held generally positive attitudes toward the importance and effectiveness of house calls as a mechanism for patient care. Physicians were most likely to agree that house calls provide good patient care, improve the physician-patient relationship, and may benefit geriatric patients following hospital discharge. They felt least strongly that house calls are cost- and time-efficient and that patients had a right to expect their family physicians

TABLE 1

Demographic Characteristics of 617 Survey Respondents

Characteristic	No. (%)
Age, years	
<40	228 (38.1)
≥40	370 (61.9)
Sex	
Women	181 (29.8)
Men	427 (70.2)
Size of community	
<10,000	118 (19.8)
10,000 to 100,000	211 (35.5)
>100,000	266 (44.7)
Type of practice	
Academic-based	38 (6.3)
Private practice	457 (76.3)
HMO	33 (5.5)
Other	71 (11.9)
Number of clinicians in practice	
1	76 (12.7)
2 to 5	288 (48.2)
6 to 10	118 (19.7)
>10	116 (19.4)
Patients registered in practice	
<2000	31 (5.5)
2000 to 3000	110 (19.4)
3000 to 6000	162 (28.6)
>6000	263 (46.5)
Patient payment mechanism	
HMO, %	
0 to 10	83 (14.1)
11 to 25	108 (18.4)
26 to 50	216 (36.8)
>50	180 (30.7)
Medicaid, %	
0 to 10	377 (63.9)
11 to 25	142 (24.1)
26 to 50	51 (8.6)
>50	20 (3.4)
Self-pay, %	
0 to 10	314 (53.7)
11 to 25	190 (32.5)
26 to 50	55 (9.4)
>50	26 (4.4)

HMO denotes health maintenance organization.

Note: Because some respondents did not answer all of the questions, totals do not always equal 617.

to make house calls. Compared with physicians who do not make house calls, physicians who reported making them were more likely to agree that house calls provide good patient care (84% vs 59%), are essential for good patient care (47% vs 16%), improve the patient-physician relationship (95% vs 78%), and should be included in family medicine residency training curricula (77% vs 50%, $P < .001$ for all). After controlling for age and sex, physicians who reported positive attitudes about house calls were more likely to make house calls.

FACTORS ASSOCIATED WITH MAKING HOUSE CALLS

Several factors were shown to be associated univariately with whether physician respondents made house calls, such as the age and sex of the physician, the size of the community, whether the physician practice was a health maintenance organization, the percentage of Medicaid patients in the practice, whether the physician received training in a university- or community-based residency, and whether the physician held more positive or less positive attitudes about the importance of house calls in patient care. Even after controlling for the strong influence of physician age and sex (both strongly related to making house calls), all remained significantly associated with whether physicians made house calls. Table 2 summarizes the results of these analyses.

OPEN-ENDED QUESTIONS

Recent house calls were most frequently made to geriatric patients, cancer patients, trauma patients, and patients with transportation difficulties. The most frequently cited reasons for continuing to make house calls included patient convenience, personal satisfaction of the physician, and enhancement of the physician-patient relationship. Negative concerns focused on the time and expense of making house calls, the lack of insurance reimbursement, and the belief that house calls should be made by home health agencies or nurses.

DISCUSSION

This study suggests that family doctors are continuing the tradition of making house calls, but to a limited extent. Physicians in this study agreed with those in previous studies who reported that house calls are good for patient care. A majority (53%) of the respondents reported making 1 to 2 house calls per month. This figure is slightly higher than Keenan's national study⁵ that reported that fewer than half of the family physicians in the United States made more than one house call in a 12-month period. In some European countries, house calls are still an integral part of a family physician's daily practice, accounting for 10% of all patient contact.^{12,13}

Should family physicians and other primary care providers visit patients in their homes? A large majority of the older respondents in our study reported making

TABLE 2

Characteristics Associated with Making House Calls

Characteristic	Physicians Making House Calls, %	P*
Age, years		
<40	43.8	
≥40	57.4	<.001
Sex		
Women	40.6	
Men	57.5	<.008
Size of community		
<10,000	79.3	
10,000 to 100,000	58.0	
>100,000	37.0	<.000
Type of practice		
Academic-based	64.9	
HMO	21.2	
Private practice	54.3	
Other	44.0	<.001
Number of clinicians in practice		
1	60.5	
2 to 5	53.2	
6 to 10	52.1	
>10	47.0	ns
Patients registered in practice		
<2000	51.6	
2000 to 6000	55.7	
>6000	51.0	ns
Patient payment mechanism		
HMO patients, %		
0 to 10	55.4	
11 to 25	70.1	
26 to 50	51.6	
>50	41.7	<.000
Medicaid patients, %		
0 to 10	45.6	
11 to 25	66.4	
26 to 50	70.6	
>50	45.0	<.000
Self-pay patients, %		
0 to 10	44.7	
11 to 25	60.3	
26 to 50	67.3	
>50	61.5	<.000
Residency base		
University	45.2	
Community	54.0	<.05

*Physician, patient, practice characteristics, and attitudes adjusted by physician age and sex.

HMO denotes health maintenance organization.

house calls; younger physicians were less likely to make them. Our data do not allow for an analysis of the many potential factors associated with this age difference. It may be that as our younger respondents age, they will have more positive attitudes about house calls. However, competing demands, including necessary office production under managed care and personal commitments, vie for a physician's time and may decrease the likelihood that a physician will make house calls.

Physicians in our study reported that low reimbursement for house calls was a disincentive. The Health Care Financing Administration (HCFA) apparently would like to reverse the trend toward fewer house calls and has greatly increased the reimbursement for physician home visits. Melvin Britton of the American Medical Association's Relative Value Scale Update Committee commented, "It's HCFA's attempt to get physicians into the home health equation."¹⁰

The population of the United States is an aging society with a greater need for longitudinal chronic care for the homebound. (Much of the literature on home visits focuses on the geriatric patient.¹⁴⁻¹⁷) Additionally, shorter hospital stays under managed care are returning less healthy patients to their homes sooner. To meet these growing home health care needs, a number of physicians in our study reported using home health agencies to make house calls. Previous studies reported that the use of home health agencies will play an important role in the management of chronic disease.¹⁸

Practice setting has been reported as a relevant parameter in the decision to make house calls, and in our study rural physicians reported making more house call than urban physicians. House calls made by physicians in rural areas may continue if home health agencies are unavailable in those areas. Practice was also a contributing factor in making house calls. Physicians practicing in health maintenance organizations were least likely to make house calls.

We found that physicians making house calls were more likely to agree that house calls should be a part of residency training. Our findings agreed with Lebel's study¹⁹ that found university-trained physicians were less likely to make house calls than were their community-hospital-trained colleagues. Family medicine residencies, particularly university-based programs, may need to review their curricula on house calls to include both primary delivery of home care and coordination of home care by home health agencies. This could be done through faculty modeling house calls and specific time set aside for residents to provide home care.

This study has several limitations. It reports only on Colorado family physicians. Because of differences in managed care penetration and differences between rural and urban locations, the results may not be generalizable to the rest of the country. In addition, the reliance on home health agencies was a surprising finding in our study, and our survey instrument was inadequate to fully explore this phenomenon.

CONCLUSIONS

This paper provides important information on several changes in attitudes and experiences with house calls. The benefit of house calls has always been assumed. However, there are no studies that examine the impact of home care, specifically that of physician house calls on medical outcomes. This is an important area for future research. Some physicians reported making house calls for their own personal satisfaction. If house calls are to continue, personal satisfaction with house calls may be an important element for older physicians to model for younger physicians, residents, and students.

ACKNOWLEDGMENTS

This research was made possible through funding from the University of Colorado Health Science Center, Department of Family Medicine Predoctoral Education Division. We would like to thank the Colorado Academy of Family Physicians for providing their membership list for our study, and we thank Gretchen Swanson, Lu Sandoval, and Joe McGloin, MS, for their assistance.

REFERENCES

1. McWhinney IR. The doctor, the patient, and the home: returning to our roots. *J Am Board Fam Pract* 1997; 10:430-5.
2. Adelman AM, Fredman L, Knight AL. House call practices: a comparison by specialty. *J Fam Pract* 1994; 39:39-44.
3. Fry J, Light D, Rodnick J, Orton P. Reviving primary care: a US-UK comparison. New York, NY: Radcliffe Medical Press, Inc, 1995.
4. Meyer GS, Gibbons RV. House calls to the elderly—a vanishing practice among physicians. *N Engl J Med* 1997; 337:1815-20.
5. Keenan JM, Boling PE, Schwartzberg JG, et al. A national survey of the home visiting practice and attitudes of family physicians and internists. *Arch Intern Med* 1992; 263:2025-32.
6. Haan de M, Lisdonk van de EH, Voorn ThB. De kern van de huisarts-geneeskunde. Wetenschappelijke uitgeverij. Utrecht, the Netherlands: Bunge, 1992.
7. de Melker RA, van der Velden J, Kuyvenhoven MM. House calls for respiratory tract infections; family medicine pure and simple? *Fam Pract* 1995; 12:294-8.
8. Knight AL, Adelman AM. The family physician and home care. *Am Fam Physician* 1991; 44:1733-7.
9. Noble J, Levinson W, Modest G, et al, eds. Textbook of primary care medicine. St. Louis, Mo: Mosby, 1996.
10. Martin S, AM News staff. More Medicare codes, more pay for house calls. *Am Med News* 1997; 40:1.45.
11. Statistical Package for the Social Sciences. SPSS Inc. Chicago, Ill; 1988.
12. Boerma W, de Jong FAJM, Mulder PH. Health care and general practice across Europe. The Hague, the Netherlands: Netherlands Institute of Primary Health Care, 1993.
13. Brouwer HJ. Huisbezoek in de grote stad. *Huisarts en Wetenschap* 1994; 37:520-6.
14. Ramsdell JW. Geriatric assessment in the home. *Clin Geriatr Med* 1991; 7:677-93.
15. Rossman I. The geriatrician and the homebound patient. *J Am Geriatr Soc* 1988; 36:348-54.
16. Hansen FR, Spedtsberg K, Schroll M. Geriatric follow-up by home visits after discharge from hospital: a randomized controlled trial. *Age Ageing* 1992; 21:445-50.
17. Scanameo AM, Fillit H. House calls: a practical guide to seeing the patient at home. *Geriatrics* 1995; 50:33-9.
18. Goldberg AI. Physician participation in home care. *Am Acad Home Care Phys* 1996; 8:1-6.
19. Lebel D, Hogg W. Effect of location on family medicine residents' training. *Can Fam Physician* 1993; 39:1066-9.